

# HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation  
DT1502 10/2010 s.66.29(7) Wis. Stats.

Proposal Number:

Ø 2

| COUNTY | STATE PROJECT ID | FEDERAL PROJECT ID | PROJECT DESCRIPTION  | HIGHWAY |
|--------|------------------|--------------------|--|---------|
| Rock   | 1003-10-88       |                    | Illinois State Line - Madison<br>SB Turtle Creek Bridge B-53-0042  | IH 39   |
| Rock   | 1005-10-84       |                    | Illinois State Line - Madison<br>NB Newville Road Bridge B-53-0073 | IH 39   |

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<br>Payable to: Wisconsin Department of Transportation | Attach Proposal Guaranty on back of this PAGE.   |
| Bid Submittal Due<br>Date: February 9, 2016<br>Time (Local Time): 9:00 AM                      | Firm Name, Address, City, State, Zip Code        |
| Contract Completion Time<br>August 19, 2016  | <b>SAMPLE</b><br><b>NOT FOR BIDDING PURPOSES</b> |
| Assigned Disadvantaged Business Enterprise Goal<br>0%  | This contract is exempt from federal oversight.  |

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

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

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

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

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

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

Notary Seal

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

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

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

## For Department Use Only

|  |                        |
|--|------------------------|
| Type of Work<br>Grading, base aggregate, HMA pavement, concrete pavement, Structures B-53-0042 and B-53-0073, culvert pipe, storm sewer, beam guard, permanent signing and pavement marking. |                        |
| Notice of Award Dated  | 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 the internet.
  2. Electronic bid on a printout with accompanying diskette or CD ROM.
  3. Paper bid under a waiver of the electronic submittal requirements.
- (2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.

- (3) The department will provide bidding information through the department's web site at:  
<http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>

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

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

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:  
<http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, 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<sup>TM</sup> web site.
  2. Use Expedite<sup>TM</sup> 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.
  5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.
- (3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

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

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid Express<sup>TM</sup> web site reflecting the latest addenda posted on the department's web site at:  
<http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>  
Use Expedite<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> generated schedule of items is not the same on each page.
  2. The check code printed on the printout of the Expedite<sup>TM</sup> generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
  3. The diskette or CD ROM is not submitted at the time and place the department designates.

### **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 Corporate Seal)**

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

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

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

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

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

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

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

## NOTARY FOR PRINCIPAL

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

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

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

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

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

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

**Notary Seal**

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

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

## NOTARY FOR SURETY

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

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

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

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

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

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

**Notary Seal**

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





# CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

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

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



## 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.

[illegible]

**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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## **SPECIAL PROVISIONS**

### **1. General.**

Perform the work under this construction contract for Project 1003-10-88, Illinois State Line – Madison, SB Turtle Creek Bridge B-53-0042, IH 39 and Project 1005-10-84, Illinois State Line – Madison, NB Newville Road Bridge B-53-0073, IH 39 in Rock 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, 2016 Edition, as published by the department.

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 (20150630)

### **2. Scope of Work.**

The work under this contract shall consist of grading, base aggregate, HMA pavement, concrete pavement, Structures B-53-0042 and B-53-0073, culvert pipe, storm sewer, permanent signing, pavement marking and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

### **3. Prosecution and Progress.**

Begin work within ten 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.

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

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees and structures (bridges, culverts, buildings). Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act.

In order to avoid adverse impacts upon the NLEBs, no vegetation clearing and grubbing within the identified clearing and grubbing limits will be allowed from June 1 to July 31, both dates inclusive.

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

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

The contractor is advised that there may be multiple mobilizations for such items as erosion control, traffic control, detours, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations.

Conform the schedule of operations to the construction staging as shown in the traffic control plans and as described herein unless modifications to the schedule are approved in writing by the engineer.

## **A Schedule of Operations**

### **Project 1003-10-88**

The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Construct IH 39/90 southbound median pavement widening
- Stage 2 – Construct IH 39/90 southbound median pavement widening, construct joint and back wall repairs to B-53-42 on west side of structure
- Stage 3 – Construct joint and back wall repairs to B-53-42 on east side of structure
- Stage 4 – Install permanent pavement markings, complete roadway finishing, and remove traffic control devices

### **Project 1005-10-84**

The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Construct repairs of IH 39/90 northbound outside shoulder
- Stage 2 – Construct IH 39/90 northbound median pavement widening and construct widening of structure B-53-73
- Stage 3 – Construct IH 39/90 northbound outside pavement widening and partial existing abutment repairs of structure B-53-73
- Stage 4 – Construct partial existing abutment repairs of structure B-53-73

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, tubular marker posts, barricades, and traffic control drums for the stage are in place, temporary signals for the stage are in place and operational, and

conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer. Allowable exceptions to this specification are intersection areas where traffic control cannot be placed until the switch is made.

## **B Contractor Coordination**

The prime contractor shall have a superintendent or designated representative on the job site during all controlling work operations, including periods limited to only subcontractor work operations, to serve as a primary contact person and to coordinate all work operations.

Hold progress meetings once a week for Projects 1003-10-88 and 1005-10-84. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work expected to begin within the next two weeks are to attend and provide a written schedule of the next week(s)' operations. Include begin and end dates of specific prime and subcontractor work operations including lane closures and traffic switches. Invite utilities, Town of Turtle, Town of Fulton, Town of Milton, and Rock County Sheriff representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' schedule, utility conflicts and relocation schedule, evaluation of progress and pay items, and making revisions if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

Based on the progress meeting, if the engineer requests a new revised schedule, submit it within seven calendar days. Failure to submit a new schedule within seven days shall result in the engineer holding pay requests until received.

## **C Work Restrictions**

### Project 1003-10-88

Do not close traffic lanes or shoulders on IH 39/90 outside of allowed time periods specified in the Lane Rental Fee Assessment and Traffic articles of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

During bridge rehabilitation activities strict best management practices must be followed to ensure that no debris, slurry, wastewater, etc. is permitted to enter Turtle Creek.

### Project 1005-10-84

Do not close traffic lanes or shoulders on IH 39/90 outside the allowed time periods specified in the Lane Fee Rental Assessment and Traffic articles of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

During bridge rehabilitation activities strict best management practices must be followed to ensure that no debris, slurry, wastewater, etc. is permitted to enter Turtle Creek.

Milling and paving operations along Newville Road cannot commence until after completion of Stage 3. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Newville Road will be allowed to be closed for removing the existing parapet of structure B-53-73, placing girders for the widened structure of B-53-73, and for milling and paving operations along Newville Road. Do not reopen Newville Road until all debris and equipment are removed from the traveled way of Newville Road and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until two 10 foot lanes of traffic can be established on a paved or gravel surface. Do not re-open the roadway until all signs, barrels, barricades, and traffic control devices required to close roadway are covered, moved, or removed.

Pile driving operations and temporary shoring placement are not allowed from 7:00 PM to 7:00 AM.

#### **D Permitted Lane Closures**

No lanes on IH 39/90 shall be closed prior to or after the specified times provided in the Lane Rental Fee Assessment article of these special provisions. If the contractor closes lanes of traffic prior to or fails to open lanes of traffic by the specified times, then a reduction based upon the Lane Rental Fee Assessment article of these special provisions will be assessed to the contractor.

### **4. Lane Rental Fee Assessment.**

#### **A Description**

This special provision describes Lane Rental Fee Assessment to enforce compliance of lane restrictions and discourage unnecessary closures.

#### **A.1 General**

The contract designates some lane closures to perform the work. No Lane Rental Fee Assessments will be charged for closing lanes during the designated working hours. If a lane is closed outside of the designated working hours, the contractor will be subject to Lane Rental Fee Assessments. If a lane is obstructed at any time due to contractor operations, it is considered a closure.

If the contractor closes lanes of traffic prior to or fails to open lanes of traffic by the specified times, then a reduction based upon 15-minute increments will be assessed to the contractor. The total reductions assessed to the contractor will be cumulative based on an escalating scale of 15-minute increments and will be the summation of separate reductions for each traffic lane and each direction of traffic in violation.

The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the designated working hours. The contractor will not incur a Lane Rental Fee Assessment for closure of lanes during the designated working hours. The designated times of lane closure are during the working hours shown in the tables below:

Project 1003-10-88

| Permitted IH 39/90 Lane Closure Times |   |
|---------------------------------------|---|
| Day of the Week                       | Hours                                     |
| Monday - Thursday                     | 12:00 AM – 5:00 AM<br>9:00 PM – 11:59 PM  |
| Friday                                | 12:00 AM – 5:00 AM<br>10:00 PM – 11:59 PM |
| Saturday                              | 12:00 AM – 7:00 AM<br>9:00 PM – 11:59 PM  |
| Sunday                                | 12:00 AM – 7:00 AM<br>10:00 PM – 11:59 PM |

Project 1005-10-84

| Permitted IH 39/90 Lane Closure Times |   |
|---------------------------------------|---|
| Day of the Week                       | Hours                                     |
| Monday - Thursday                     | 12:00 AM – 5:00 AM<br>8:00 PM – 11:59 PM  |
| Friday                                | 12:00 AM – 5:00 AM<br>10:00 PM – 11:59 PM |
| Saturday                              | 12:00 AM – 7:00 AM<br>8:00 PM – 11:59 PM  |
| Sunday                                | 12:00 AM – 9:00 AM<br>9:00 PM – 11:59 PM  |

The contractor shall submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule. The contractor will coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project.

If other projects are in the vicinity of this project, the contractor shall coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

**A.2 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:

\$2,500 per lane per 15 minutes

The total reduction from monies due to the contractor shall be the summation of the separate reductions for each work restriction violation.

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

Lane Rental Fee Assessments will be made based on the applicable rate for any and all closures whether work is being performed or not. 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.

**B (Vacant)**

**C (Vacant)**

**D Measurement**

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.

**E (Vacant)**

**5. Traffic.**

**A General**

The following is a general overview of the traffic control and staging required throughout all stages of the project. The staging requirements are described further in the "Prosecution and Progress" article in these special provisions.

Accomplish the construction sequence, including the associated traffic control as detailed in the Construction Staging section of the plans, and as described in this Traffic article.

Unless detailed in the plans, do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in this article.

Submit a detailed traffic control plan to the engineer for approval if different than the traffic control plan provided in the plan set. Submit this plan ten days prior to the pre-construction conference.

Submit all traffic control change requests to the engineer at least 3 working days prior to an actual traffic control change. A request does not constitute approval.

IH 39/90 will remain open to through traffic at all times for the duration of this project except where noted below and in the Prosecution and Progress and Lane Rental Fee Assessment articles of these special provisions.

#### **B Traffic Operations During All Stages**

- Maintain two lanes of traffic in each direction at all times on IH 39/90\*.
- Maintain one lane of traffic in each direction for Newville Road\*\*.
- Maintain mainline traffic on IH 39/90 on a paved concrete or hot mix asphalt surface at all times.
- Maintain a minimum lane width of 12-feet on IH 39/90 (16-foot minimum clear width when restricted to one lane) and a minimum lane width of 11-feet on Newville Road.

\* Lane, shoulder, and rolling stop closures allowed as specified in the Lane, Shoulder, and Rolling Stop Closure sections and Lane Rental Fee Assessment articles of these special provisions.

\*\*Lane, shoulder, and roadway/ramp closures allowed as specified in the Lane, Shoulder, Roadway, and Ramp Closure sections and Lane Rental Fee Assessment articles of these special provisions.

#### **C Traffic Operations**

##### Project 1003-10-88

- Stage 1
  - Nighttime lane closures will be required. One lane of traffic will be maintained on IH 39/90 southbound for nighttime operations. Two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closure sections.
- Stage 2
  - Nighttime lane closures will be required. IH 39/90 southbound traffic will shift to utilize the widened inside shoulder constructed in Stage 1. One lane of traffic will be maintained on IH 39/90 southbound for nighttime operations. Two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closure sections.
- Stage 3
  - Nighttime lane closures will be required. IH 39/90 southbound traffic will shift to utilize the widened outside shoulder constructed in Stage 2. One lane of traffic will be maintained on IH 39/90 southbound for nighttime operations. Two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closure sections.

- Stage 4
  - Nighttime lane closures will be required. One lane of traffic will be maintained on IH 39/90 southbound for nighttime operations. Two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closure sections.

#### Project 1005-10-84

- Stage 1
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure sections.
  - Newville Road traffic will be maintained on all existing lanes.
- Stage 2
  - IH 39/90 northbound traffic will shift to utilize the repaired outside shoulder constructed in Stage 1. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.
  - Newville Road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure sections.
- Stage 3
  - IH 39/90 northbound traffic will shift to utilize the widened inside shoulder constructed in Stage 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.
  - Newville Road traffic will be maintained on all existing lanes.
- Stage 4
  - IH 39/90 northbound traffic will shift to utilize the widened outside shoulder constructed in Stage 3. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.
  - Newville Road traffic will be maintained on all existing lanes except as specified in the Roadway, Ramp, and Rolling Stop Closure section.

Coordinate and stage all construction activities within the areas of local traffic routes, as required to maintain a traveled way conforming to all above requirements.

Do not switch traffic over to the next construction stage until all temporary barrier, signing, pavement marking, reflectors, tubular marker posts, and traffic control drums for the stage are in place, temporary signals for the stage are in place and operational, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer. Allowable exceptions to this specification are at intersection areas where traffic control cannot be completed until after the switch is made.



Use drums and barricades to direct local vehicular and pedestrian traffic in the work zone and to protect and delineate hazards such as open excavations, abrupt drop-offs, and exposed manholes, inlets, hydrants, etc. The use of such devices shall be incidental to the operation which creates the hazard.

Place roadway signing and roadway temporary pavement marking as detailed on the plans and in conformance to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Traffic control shall be completely in place by the end of the working day of a traffic switch.

Do not deliver or store materials and equipment within open travel lanes or open side roads during any stage of construction.

Conduct operations in a manner that will cause the least interference to traffic and pedestrian movements. Maintain vehicle and pedestrian access at all times to buildings within the limits of construction. Access to residential parcels may be restricted for up to one calendar day in order to construct concrete pavement repair in front of residential access points. Notify property owners at least two working days prior to closing their access point. Maintaining property access is incidental to the Traffic Control Surveillance and Maintenance (Project) bid item.

Do not at any time conduct construction operations in the median area and adjacent outside area of IH 39/90 at the same time without the permission of the engineer.

Obtain approval from the engineer for the location of any ingress or egress access points for construction vehicles during non Nighttime hours.

#### **D Definitions**

The following definition applies to all projects:

| IH 39/90 Shoulder Closures |   |
|----------------------------|---|
| Day of the Week            | Hours                                     |
| Monday-Saturday            | 12:00 AM – 11:59 PM                       |
| Sunday                     | 12:00 AM – 11:59 PM<br>5:59 PM – 11:59 PM |

Project 1003-10-88

The following definition applies to these projects:

| IH 39/90 Nighttime Hours |   |
|--------------------------|---|
| Day of the Week          | Hours                                     |
| Monday - Thursday        | 12:00 AM – 5:00 AM<br>9:00 PM – 11:59 PM  |
| Friday                   | 12:00 AM – 5:00 AM<br>10:00 PM – 11:59 PM |
| Saturday                 | 12:00 AM – 7:00 AM<br>9:00 PM – 11:59 PM  |
| Sunday                   | 12:00 AM – 7:00 AM<br>10:00 PM – 11:59 PM |

Project 1005-10-84

The following definition applies to this project:

| IH 39/90 Nighttime |   |
|--------------------|---|
| Day of the Week    | Hours                                     |
| Monday - Thursday  | 12:00 AM – 5:00 AM<br>8:00 PM – 11:59 PM  |
| Friday             | 12:00 AM – 5:00 AM<br>10:00 PM – 11:59 PM |
| Saturday           | 12:00 AM – 7:00 AM<br>8:00 PM – 11:59 PM  |
| Sunday             | 12:00 AM – 9:00 AM<br>9:00 PM – 11:59 PM  |

**E Lane and Shoulder Closures**

Single lane closures on IH 39/90 may be permitted during nighttime hours as defined in the Lane Rental Fee Assessment article of these special provisions. Shoulder closures on IH 39/90 may be permitted during the hours listed in the Definitions of this article of these special provisions. During the times when one lane is allowed to be closed, a minimum clear width of 16 feet, including the adjacent shoulder, shall be maintained at all times. Times listed for lane and shoulder closures include setup and breakdown of any equipment and traffic control devices.

Request approval from the engineer for all lane closures according to the requirements of the subsection titled “Wisconsin Lane Closure System Advanced Notification” of this article. Include justification for the lane closure and the anticipated duration in the request. A request does not constitute approval. Terminate single lane closures at the end of Nighttime travel periods. Failure to obtain approval or reopen closed lanes at the required time shall be subject to penalties specified under the Lane Rental Fee Assessment and Prosecution and Progress articles of these special provisions.

Maintain a two mile minimum spacing between simultaneous lane closures. The two mile spacing is measured from the end of the first lane closure to beginning of taper for the next lane closure.

Shoulders may be closed if required by the work operation, but the right and left shoulder may not be closed in the same area at the same time.

Provide arrow boards for use during all single lane closures according to the MUTCD. Arrow boards for single lane closures will be paid for under the item Traffic Control Arrow Boards for each day with a single lane closure where an arrow board is in use.

#### Project 1005-10-84

Flagging operations will be allowed along Newville Road to accommodate the structure widening of B-53-73 between 1 hour after sunrise and 1 hour before sunset. Use sunset and sunrise information from the nearest National Weather Service office. Delays due to flagging may not exceed 5 minutes in any direction. The engineer will have the ability to suspend work activities in the event any undesirable traffic congestion develops that has the potential to cause lengthy motorist delay or unsafe workings conditions.

#### **F Roadway Closures**

Maintain full access as shown in the Construction Staging section of the plans except those defined in the Prosecution and Progress article of these special provisions.

Failure to reopen the roadway at the required times shall be subject to penalties specified under the Prosecution and Progress and Lane Rental Fee Assessment articles of these special provisions.

Place Traffic Control Signs Portable Changeable Message for all lane and roadway closures as shown on the plans at least seven days prior to the lane or roadway closure. Install all signing and devices for roadway closures. Obtain approval from the department for all messages for the Traffic Control Signs Portable Changeable Message. The engineer will contact Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400. All lane closures are subject to the approval of the Region traffic engineer.

#### **G Local Access to Project**

Maintain local traffic access during the construction of Newville Road. Stage construction activities as required to maintain local traffic access.

Construct and maintain a local traffic access route on any section of roadway that will carry only local traffic conforming to the following criteria:

- § Number of Lanes: One lane in each direction
- § Lane Width: Minimum of 10 foot width OR one lane roadway with flagging
- § Driving Surface: Acceptable driving surfaces include base aggregate dense, asphaltic surface temporary, HMA pavement, concrete pavement and milled surfaces.

## **H Pedestrian Access**

Maintain pedestrian access at all times except under direction of the engineer. Provide a temporary surface for pedestrian access at all times. The temporary surface shall meet Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements and shall consist of conveyor belt, temporary asphaltic surface, any grade of concrete, skid resistant steel plating, or alternative material as approved by the engineer. Gravel or base course material is not acceptable. Maintaining pedestrian access is considered incidental to the contract.

## **I Property Access**

Maintain access to properties along the project for local residents, businesses, and emergency vehicles. Access to all driveways and parking lots where alternative access is not available shall remain open at all times, except when it is absolutely necessary to close them for underground construction. Concrete curb and gutter, concrete driveway, and concrete sidewalk construction shall be staged to maintain driveway access. Keep business entrances open by partial driveway construction or by closing only one access at a time for properties with multiple driveways. Construct temporary commercial entrances including a crushed aggregate surface within 24 hours of removal. Combine temporary commercial entrances wherever practical to minimize the number of access locations.

Inform all adjacent property owners two working days prior to closing their access(es). Maintaining property access as described above is considered incidental to the Traffic Control Surveillance and Maintenance (Project) bid item.

## **J Advance Notification**

Notify the, Town of Turtle, Town of Fulton, Town of Milton, Milton Fire Department, Milton Courier, Riteway Bus Service; Rock County Sheriff's Department and Highway Commissioner, Wisconsin State Patrol through Jeff Gustafson of WisDOT Southwest Region at (608) 516-6400 or [jeffrey.gustafson@dot.wi.gov](mailto:jeffrey.gustafson@dot.wi.gov), Edgerton Post Office, Milton Post Office, Janesville Post Office, Edgerton Reporter and Janesville Gazette 48 hours in advance of the start of work, closures of existing streets, and prior to traffic control changes. Notifications must be given by 4:00 PM on Thursday for any such work to be done on the following Monday.

Notify the City of Milton School District two weeks prior to construction. Also notify them one week prior to traffic switches and lane closures.

The department has the authority to disallow any requested closures or width restrictions. Advance notification as described above is considered incidental to the Traffic Control

## **K Clear Zone Working Restrictions**

Do not leave any slopes steeper than 3:1 within the clear zone or any drop offs at the edge of the traveled way greater than 2 inches which are not protected by temporary precast barrier. The clear zone for IH 39/90 is 34 feet and Newville Road is 20 feet.

Do not perform heavy equipment work in the median or adjacent to the shoulder at any time unless protected by concrete barrier in both directions except during night work with allowed lane closures.

Store materials or park equipment a minimum of 34 feet from the edge of the IH 39/90 traveled way and 20 feet from the edge of the Newville Road traveled way. Equipment may be parked in the median if it is protected by concrete barrier.

If the contractor is unsure whether an individual work operation will meet the safety requirements for working within the clear zone, review the proposed work operation with the engineer before proceeding with the work.

#### **L Portable Changeable Message Signs – Message Prior Approval**

After coordinating with department construction field staff, notify Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400, three weeks prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The department will review the proposed message and either approve the message or make necessary changes.

#### **M Wisconsin Lane Closure System Advanced Notification**

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

**CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

| Closure type with height, weight, or width restrictions (available width, all lanes in one direction $\leq 16'$ ) | MINIMUM NOTIFICATION |
|---|----------------------|
| Lane and shoulder closures  | 14 calendar days     |
| Full roadway closures   | 14 calendar days     |
| System and service ramp closures  | 14 calendar days     |
| Full system and service ramp closures   | 14 calendar days     |
| Detours   | 14 calendar days     |
|   |                      |
| Closure type without height, weight, or width restrictions (available width, all lanes in one direction $> 16'$ ) | MINIMUM NOTIFICATION |
| Lane and shoulder closures  | 14 calendar days     |
| System and service ramp closures  | 14 calendar days     |
| Modifying all closure types   | 14 calendar 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.

Notify the engineer and WisDOT Statewide Traffic Operations Center (STOC) at (414) 227-2142 if there are any changes in the schedule, early completions, or cancellations of scheduled work.

The department has the authority to disallow any requested closures or width restrictions.

Coordinate with the engineer prior to any traffic detour to allow at least ten working days for the review of the detour route marker signing. The engineer will contact the Southwest Region Madison Office Traffic Management Coordinator, Jeff Gustafson, (608) 516-6400.

### **N Portable Intelligent Transportation System**

The department may be supplying and operating an intelligent transportation system during the construction of this project. The ITS system may consist of a portable video surveillance system and portable changeable message signs. These portable units may be parked inside and outside the construction limits to help assist law enforcement and the department with monitoring traffic conditions during the construction activities.

The department will coordinate the placement of these devices with the contractor. The contractor will be required to accommodate the placement of these devices within the project. The general accommodations include an area to park the devices out of the clear zone but still visible to traffic and access to and from the devices. Contact the Southwest Region Traffic Section, Graham Heitz at (608) 246-5362 for specific details regarding the intelligent transportation system.

### **O Protection of Structures**

Bridge pier columns and sign bridge bases are to remain protected at all times throughout construction.

### **P Construction Access**

All construction access is subject to approval of the engineer.

Access into a work zone directly from IH 39/90 will only be allowed from a closed lane during the IH 39/90 Permitted Lane Closure Times defined above and must follow the requirements of the Construction Detail titled "Traffic Control Detail for Construction Access at Lane Closure" at locations approved by the engineer.

Exiting a work zone directly onto IH 39/90 will only be allowed from a closed lane during the IH 39/90 Permitted Lane Closure Times defined above and must follow the requirements of the Construction Detail titled "Traffic Control Detail for Construction Access at Lane Closure" at locations approved by the engineer.

Construction traffic cannot travel counter-directional adjacent to IH 39/90 traffic except behind temporary concrete barrier.

U-Turns at existing maintenance crossovers or temporary crossovers between IH 39/90 northbound and southbound will be allowed only when lane closures are in place for inside northbound and southbound lanes.

Construction operations affecting the traveling public's safety on IH 39/90 will not be allowed during snow and ice conditions, or any other adverse weather conditions, unless approved by the engineer.

Delivery of equipment to IH 39/90 requiring the use of a semi-tractor and trailer shall only occur during those hours identified as IH 39/90 Permitted Lane Closure Times.

**Q Enhanced Reference Location Signing**

Maintain all existing enhanced reference location signing throughout the duration of the project as shown in the plans.

**6. Holiday Work Restrictions.**

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 39/90 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 periods:

- From noon Friday, March 25, 2016 to 6:00 AM Monday, March 28, 2016 for Good Friday and Easter;
- From noon Friday, May 27, 2016 to 6:00 AM Tuesday, May 31, 2016 for Memorial Day;
- From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016 for Independence Day;

107-005 (20050502)

**7. Utilities.**

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

107-065 (20080501)

There are underground and overhead utility facilities located within the project limits. There are known utility adjustments required for the construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to insure the integrity of underground facilities and maintain code clearance from overhead facilities at all times. Adjustments in the location of certain described items may be necessary, as directed by the engineer, when it becomes evident that a utility conflict could occur.

#### Project 1003-10-88

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

**Alliant Energy** (Electric)  
**Alliant Energy** (Gas)  
**AT&T Wisconsin**  
**Charter Communications**

#### Project 1005-10-84

**Century Link** (Telephone) – The existing buried cable located along the west side of Newville Road will be abandoned and a new cable will be relocated west of the existing piers of Structure B-53-73.

Construction will be completed by February 29, 2016. No conflicts are anticipated.

**Milton Wastewater Treatment Facility** (Sanitary) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Lon Liefke, 41 North Street, Milton, WI 53563; (608) 868-6918 or (608) 247-6918; e-mail: [lliefke@milton-wi.gov](mailto:lliefke@milton-wi.gov).

**Rock Energy Cooperative** (Electric) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Lynn Maier, 2815 Kennedy Road, Janesville, WI 53545-1758; (608) 752-4550 or (608) 289-4149; e-mail: [lynnm@rock.coop](mailto:lynnm@rock.coop).

## **8. Other Contracts.**

Coordinate work according to standard spec 105.5.

Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

It is expected that routine maintenance by the county and town personnel may be required at certain times concurrently with work being done under this contract.

The following contracts are anticipated to be under construction within the time period of the contract unless otherwise indicated.



**Project 1005-10-71**

This project involves reconstructing the northbound and southbound bridges carrying IH 39/90 traffic over the Rock River.

**Project 1005-10-72**

This project involves the reconstruction of northbound and southbound IH 39/90 from Knutson Road to the north Rock County Line.

**Project 1003-10-72**

This project involves the reconstruction of the interchange of STH 11 / Avalon Road with IH 39/90, including the removal of the existing overpass structure and the construction of two new bridges over IH 39/90.

**Project 1003-10-73 and 3621-00-76**

This project involves the reconstruction of Hart Road, including the reconstruction of the bridge over IH 39/90 and widening of IH 39/90.

**9. Erosion Control.**

*Supplement standard spec 107.20 with the following:*

Unless otherwise directed by the engineer at the end of each day, drive a tracked vehicle up and down all untracked or newly graded slopes to reduce the erosive potential of the slopes. The tracks shall be roughly perpendicular to the direction of storm water runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

*Delete the last sentence of standard spec 107.20(7) and replace it with the following:*

Provide the permanent erosion control measures immediately after performing grading operations, unless temporary erosion control measures are specified or authorized by the engineer.

**10. Coordination with Businesses and Residents.**

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week prior to the start of work under this contract and hold two meetings per month thereafter. The contractor shall arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for the meeting(s). The contractor shall schedule the meeting(s) with at least two weeks prior notice to the engineer to allow for these notifications.

108-060 (20141107)

## 11. Contract Award and Execution.

*Supplement standard spec 103 as follows:*

### **103.9 Mobilization Workshops**

#### **103.9.1 Workshop Schedule**

After contract award, attend the following workshops. Each workshop is described below and will include but not be limited to the topics outlined below.

| <b>Workshop</b>                         | <b>Timeframe</b>  |
|---|---|
| Initial Work Plan (IWP)                 | Prior to Notice to Proceed (NTP)                          |
| Cost Reduction Incentive and Submittals | Prior to preconstruction meeting                          |
| Utility Coordination                    | Prior to preconstruction meeting                          |
| Baseline CPM Progress Schedule          | After NTP and submittal of Baseline CPM Progress Schedule |
| Work Force Opportunities                | Day of preconstruction meeting                            |

The workshop dates will be scheduled by the engineer after contract award. The engineer may modify the original workshop schedule to ensure attendance by the necessary department and contractor personnel. Workshops may be scheduled earlier than specified if agreed to by all parties. Workshops may be deleted and/or combined depending on the complexity and requirements of the project.

### **103.9.2 Workshops**

#### **103.9.2.1 Initial Work Plan**

##### **103.9.2.1.1 General**

The Initial Work Plan workshop will provide a forum to discuss and answer questions relative to the proposal, bid schedule, and other questions in the Project Questionnaire described in standard spec 103.9.2.1.2. The Initial Work Plan Workshop will include:

- Contractor responses to the attached Project Questionnaire.
- Department presentation of the use of CPM scheduling on the project.
- Contractor presentation of the conceptual work plan for the project.
- Department and contractor discussion of the level of detail and features in the Initial Work Plan Schedule and the Baseline CPM Progress Schedule.

##### **103.9.2.1.2 Project Questionnaire**

Provide the following information in the order shown below. This information will constitute the "Project Questionnaire."

**General Information**

**If a Joint Venture, provide information for each member of the Joint Venture.**

1. Provide the following information about the company:
  - Firm Name
  - Address
  - Telephone and facsimile numbers; e-mail address
  - Contracting Specialties
  - Years performing work in contracting specialties
  - Geographic areas served
  - Total Management Employees and years of service
  - Project Managers
  - General Superintendents
  - Craft Superintendents
  - Engineers
  - Estimators
  - CPM Schedulers

**Construction Engineering**

Provide/attach a copy of your Construction Project Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Provide (if applicable) your third-party construction engineering firms.

Provide plan for Construction surveying.

**Subcontractors**

Attach the list of all subcontractors that are intended for this project and the items of work they shall perform.

**Permanent Material Suppliers**

Attach the list of all permanent material suppliers that are intended for the project.

**Quality Control** (where applicable)

Provide the name of your Construction Quality Control firm and qualifications indicating the firms' experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Provide/attach a copy of your Construction Quality Control Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

List the major elements and/or Table of Contents of your Construction Quality Management Program.

Provide the name of your Independent Quality Control Testing firm (Construction Quality Control Lab) and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

### **Organization Chart**

Provide a functional and personnel Organization Chart showing the authority and responsibilities of each individual identified.

### **Work Rules**

Provide the plan for hours per day, days per week, and number of shifts for key elements of work; i.e. sewer tunnels, retaining wall construction, roadway excavation, bridge structures, and roadway structural section activities.

### **Maintenance of Traffic**

Provide the name of your Traffic Control Manager and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Attach a copy of your Preliminary Schedule indicating your approach to achieving the substantial completion schedule.

Include an outline of your approach to the maintenance of traffic and how you shall stage the construction to meet the substantial completion schedule including planned locations for local street and freeway access into and out of the work zones for each stage of construction.

### **Construction**

Provide the approach (resources, equipment, suppliers, number of crews, and where required ground support systems) for the following activities:

- Retaining wall construction by type of work
- Bridge demolition
- Roadway structural section
- Roadway excavation
- Underground construction
- Office and yard facilities

### **103.9.2.2 Cost Reduction Incentives and Submittals**

The Cost Reduction Incentive (CRI) and Submittals workshop will have two primary topics outlined below:

### Cost Reduction Incentives

Identify value enhancing opportunities and consider modifications to the plans and specifications that will reduce either the total cost, time of construction or traffic congestion, without impairing, in any manner, the essential functions or characteristics of the project, including, but not limited to, service life, economy of operation, ease of maintenance, benefits to the traveling public, desired appearance, or design and safety standards.

Submit recommendations resulting from the workshop for approval by the engineer as cost reduction incentive proposals in conformance with the provisions in standard spec 104.10 "Cost Reduction Incentive."

The department and the contractor may be able to complete the CRI Concept process, as specified in standard spec 104.10.2, during the CRI workshop.

Submit CRIs after the CRI workshops that were not introduced at the CRI workshop.

### Submittals

The Submittals Workshop will identify the key required submittals for the project, categorize submittals into functional areas, and develop a schedule for submittals and submittal reviews. The workshop participants will at a minimum:

1. Review the project special provisions.
2. Categorize submittals into functional areas including but not limited to:
  - MSE Retaining Walls
  - Temporary Shoring
  - Falsework and Formwork
  - Girder Shop Drawings
  - Steel Transportation, Delivery, and Erection
  - Structure Demolition Plans
  - Pile Hammers and High Capacity Piling
  - Concrete/ Asphalt
  - Materials
  - ITS / Lighting
  - Traffic Signals
  - Sanitary Sewer and Water
  - Permits
3. Develop a schedule for submittals.

### **103.9.2.3 Utility Coordination**

The Utility Coordination Workshop will define the scope and schedule of utility relocation work and the respective roles and responsibilities of the project team.

1. At a minimum, the following key personnel will attend the Utility Coordination Meeting.
  - Department's Utility Coordinator
  - Contractor's Project Manager, Foreman, Supervisor
  - Designer Team's Utility Coordinator
  - Key Utility Company Representative(s)
2. At a minimum, the Utility Coordination Meeting will include a review of the following:
  - Summary of all required utility relocations on the project
  - Special provisions addressing utility work
  - Sharing of contact information
  - Scheduling of work for utility relocation(s) including critical milestones and staging for the work
  - Contractor's work schedule and anticipated conflicts with the utility's construction schedule.

### **103.9.2.4 Baseline CPM Scheduling**

At the Baseline CPM Scheduling workshop, provide a presentation of the Baseline CPM Schedule. In the presentation, include a discussion of the construction staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the work. Address comments raised in the engineer's review.

### **103.9.2.5 Work Force Opportunities**

The Work Force Opportunities workshop will provide a venue for contractors to have meaningful dialogue with TrANS providers regarding the hiring of TrANS graduates. For the prime contractor and the subcontractors, provide staff with hiring authority to participate in a job-matching session during this workshop. The workshop will take place on the same day and in the same location as the pre-construction meeting. The workshop participants will at a minimum:

1. Review contractor hiring processes for general labor positions.
2. Review and listen to presentation provided by TrANS providers regarding the training program including details regarding how contractors can hire TrANS graduates.
3. Review TrANS graduate availability for working on project.
4. Meet one-on-one for at least two minutes with each TrANS graduate in attendance at the meeting.

## **12. Timely Decision Making Manual.**

Use the Timely Decision Making Manual (TDM) on this contract. Coordinate with the department to modify the various published tools as necessary to meet the particular project needs and determine how to implement those tools under the contract. Ensure the full participation of the contractor and its principal subcontractors throughout the term of the contract.

Forms and associated guidance are published in the TDM available at the department's Highway Construction Contract Information (HCCI) web site at:

Timely Decision Making Manual (TDM)

105-005 (20151210)

## **13. Archaeologically Significant Sites.**

Whitford Map Mound is an uncatalogued burial site located approximately between Station 1232+50'TWNB' and Station 1262+00'TWNB' on the east and west sides of IH 39/90 within the limits shown on the plans.

Provide notice to the Bureau of Technical Services-Environmental Process and Document Section (BTS-EPDS) at least two weeks before commencement of any ground disturbing activities at the burial sites noted. BTS-EPDS will determine if a department provided qualified archaeologist will need to be on site during construction of this area.

BTS-EPDS can be contacted through the following representatives:

Jim Becker: (608) 261-0137

Lynn Cloud: (608) 266-0099

If human bone is discovered during construction, work activities in the area shall immediately cease and the qualified archeologist will contact the Wisconsin Historical Society at (800) 342-7834 or (608) 264-6507 for compliance with Wisconsin Statute 157.70 regarding the protection of human burial sites.

The area within the limits of the Whitford Map Mound shall not be used for embankment or waste disposal, and the site area not currently capped by asphalt/concrete shall not be used for the staging of personnel, equipment and/or supplies.

## **14. Notice to Contractor – Construction Safety.**

### **Description**

This specification describes minimum occupational safety and health requirements for the prime contractor and their subcontractors performing work on this project. The fundamental objective of these requirements is to eliminate construction related injuries and incidents so that their associated impacts to workers and the public, budgets and schedules are avoided or minimized.

## **Definitions**

**Certified Crane Operator.** To be certified a crane operator one must pass both written and practical tests offered by a nationally accredited testing organization, such as the National Commission for the Certification of Crane Operators (NCCCO) or the Operating Engineers Certification Program (OECF).

**Competent Person.** One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

**Critical Lift.** A critical lift applies to, but is not limited to the following: any crane lift or hoisting operation that exceeds 75 percent of the rated capacity of the crane, requires the use of more than one crane or hoisting device, involves barge-mounted cranes, where the center of gravity could change, lifts where existing outriggers cannot be fully extended due to site constraints, lifts involving multiple lift rigging assemblies or other non-routine/difficult rigging arrangements.

**Project Safety Officer (PSO).** The person or persons designated by the department to coordinate implementation of a construction safety management system, including risk assessment, training, evaluating effectiveness, corrective/preventive action, and management review.

**Qualified Person.** One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

**Safety Representative (SR).** A person designated by the contractor to develop and implement the company's health and safety plan, assess job hazards, and identify and carry out corrective and preventive actions.

## **General Requirements**

Notify the department immediately of any agency compliance inspections, including but not limited to the Occupational Safety and Health Administration (OSHA).

Report all project-related fatalities and OSHA-recordable injuries and illnesses that result in inpatient hospitalizations within 8 hours to the Project Safety Officer (PSO). Report all other project-related OSHA-recordable injuries and illnesses monthly to the PSO.

## **Safety Representative Requirements**

Provide at least one Safety Representative (SR). Each SR shall perform inspections, safety observations and other safety-related duties on-site on a weekly basis, at a minimum. Provide an alternate SR in the event of illness or other unforeseen circumstances.



Each SR and alternate SR shall have training, knowledge and experience in construction safety and health, including but not limited to a current OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety and Health. Provide evidence of SR certifications, qualifications and training to the PSO.

Each SR and alternate SR shall attend a 2-hour Construction Safety Awareness Training provided by the department at the beginning of the project and at least once every two years. The SR shall communicate and distribute materials provided in the 2-hour Construction Safety Awareness Training to their site workers prior to starting site construction activities.

### **Requirements for Construction Health and Safety Programs**

In addition to implementing programs to meet the requirements of OSHA Construction Safety and Health standards, develop a written safety plan for the work to be performed. Note: General guidance is provided in Section 1-35.1.2 of the Construction and Materials Manual.

### **Traffic Control and Vehicle Collision Prevention/Risk Reduction**

All vehicles and mobile equipment shall use high-intensity rotating, flashing, oscillating, or strobe lights according to Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).

Provide crash cushions or truck (or trailer)-mounted attenuators (TMAs) on shadow vehicles to protect workers, vehicles, and mobile equipment from vehicle collisions according to the Manual of Uniform Traffic Control Devices (FHWA, 2009, Section 6F.86). Coordinate with the engineer at least 72 hours before placing a TMA in service.

### **Personal Protective Equipment (PPE)**

Minimum Requirement Personal Protective Equipment (PPE) to be worn in Construction Work Areas:

- ASTM F2413-11 safety-toed boots rated for impact and puncture resistance (PR) shall be worn.
- ANSI Z-87+ impact-resistant safety glasses with sideshields shall be worn. Requirements for faceshields, goggles, welding shades, etc. shall be determined by the SR.
- ANSI Z-89.1 Class G or E hard hats where there is potential for impact or injury to the head.
- Daytime Work: ANSI/ISEA 107-2004 Class 2 or 3 high visibility vests at all times and Type E pants for flaggers and other personnel working on the traffic side of concrete barriers (yellow/lime).

- Nighttime Work: ANSI/ISEA 107-2004 Class 2 or 3 retro-reflective safety vests (yellow/lime) and Type E pants (Type 3 ensemble) and a hard-hat-mounted LED light (“miner’s lamp”).
- Hearing protection shall be used, if the work site noise exceeds 90 decibels (dBA), as 8-hour average exposure measurements. [29 CFR 1926.52 and .101]

### **Walking and Working Surfaces**

Keep all accessible work areas and passageways free from debris, obstructions and other slip, trip and fall hazards.

### **Excessive Driving Hours/Extended Work Shifts**

Distribute a one-page handout to each truck driver accessing the work zone to increase their awareness of hazards related to extended work shifts. The department will make the handout available electronically.

### **Cranes and Hoists.**

Ensure that all crane operators have been certified by the National Commission for the Certification of Crane Operators (NCCCO) or by the Operating Engineer Certification Program (OECPP) if they will be operating a 10-Ton or greater capacity crane or if they are involved in critical lifts.

Provide critical lift plans to the department at least 72 hours prior to a critical lift. The contractor is responsible for all submittals, assumptions, calculations, and conclusions. Have a professional engineer, registered in the state of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one copy of each design, signed and sealed by the same professional engineer verifying the design, to the engineer.

Crane operators shall safely terminate hoisting operations in the event of wind conditions that exceed the original equipment manufacturer’s specifications for safe operation.

### **Documentation and Records**

Maintain documents and records and ensure that they are readily available upon request.

At a minimum this includes:

- a. Written Safety Plan for Work Activities to be Performed
- b. Names of Safety Representatives and copies of their OSHA 10-Hour Occupational Safety and Health Training Course in Construction Safety and Health training cards.
- c. Names of Competent Persons and Qualified Persons (if required by OSHA for the work performed).
- d. Reports of inspections of the job sites, materials, and equipment [29 CFR 1926.20(b)(2)].

- e. Documentation that the SR has communicated and distributed materials from the Construction Safety Awareness Training to their site workers. At a minimum this will include a dated sign-in sheet with the names and signatures of the workers trained. The department will provide a sign-in sheet template electronically.
- f. Project site OSHA 300 Log (no worker names)[29 CFR 1904.29]
- g. Project site OSHA 301 Incident Report (no worker names ) [29 CFR 1904.29]
- h. Hazard Communication Program [29 CFR 1926.59]
  - i. Hazardous Chemical Inventory,
  - ii. Location of Safety Data Sheets (SDSs)
  - iii. Hazard Warning Symbols
  - iv. Information and training requirements.
- i. Exposure Monitoring results (if monitoring is required under a specific OSHA standard-no worker names)
- j. Crane operator certifications (if applicable)
- k. Fall Protection Plan (if applicable) [29 CFR 1926.500-.503 and 1926.104]
- l. Confined Space Entry Procedures (if applicable). [29 CFR 1926.1200-.1213]
- m. Lockout/Tagout Procedures (if applicable). [29 CFR 1926.417 and .702]
- n. Respiratory Protection Program (if applicable) [29 CFR 1926.103 and 1910.134(c)]
- o. Emergency Action Plan [29 CFR 1926.35]
  - v. Emergency escape procedures and emergency escape route assignments
  - vi. Procedures to be followed by employees who remain to operate critical equipment before they evacuate
  - vii. Procedures to account for all employees after emergency evacuation has been completed
  - viii. Rescue and medical duties for those employees who are to perform them;
    - First Aid and Medical Treatment Procedures [29 CFR 1926.50]
    - Equipment and Supplies
    - Names of persons certified in first aid
    - Location of the nearest medical facility.
  - ix. The preferred means of reporting fires and other emergencies
  - x. Prime contractor's alarm system
  - xi. Names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.
- p. Fire Protection Program (if applicable) [29 CFR 1926.150]
- q. Fire Prevention Plan and Hot Work Permit procedures (if applicable) [29CFR 1926.352]

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

John Roelke, License Number All-119523, inspected Structure B-53-0042 for asbestos on November 15, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, [Jennifer.Grimes@dot.wi.gov](mailto:Jennifer.Grimes@dot.wi.gov).

James Gondek, License Number All-108099 and Angela Voit, License Number All-112673, inspected Structure B-53-0073 for asbestos on December 6, 2005. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, [Jennifer.Grimes@dot.wi.gov](mailto:Jennifer.Grimes@dot.wi.gov). 107-127 (20120615)

## **16. Notice to Contractor, Revisions to Traffic Control Plans.**

The traffic control and staging plans/details contained within the project plans have been developed from an FHWA approved Transportation Management Plan (TMP). According to TMP requirements, the department may revise the TMP during construction if conditions warrant. This specification shall be followed to obtain concurrence for implementation of any proposed changes to construction phasing/staging that will affect the traffic patterns depicted in the plans.

Submit traffic control revision(s) to the engineer a minimum of 21 calendar days prior to the anticipated implementation of the proposed change(s). Include the following:

Detail on existing or new project plan sheets that show:

- The revised traffic pattern, widths, grades, temporary pavement, signs, traffic control devices, pavement marking, flaggers, time of day, width restrictions, and any other details required to convey a new or revised traffic control design.
- Erosion control measures required, including the location(s) of any tracking pad(s).

Written summary of proposed traffic control change including:

- Benefits to implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the motoring public).
- Timeframe to construct, duration in place, and time to remove.

The request will be reviewed, and if warranted, concurred with designated I-39/90 Corridor Management Team (CMT) staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If the request is approved, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer will correspond with the following FHWA and department staff to obtain concurrence:

- Johnny Gerbitz, FHWA, [Johnny.Gerbitz@dot.gov](mailto:Johnny.Gerbitz@dot.gov)
- Rich Cannon, I-39 CMT Traffic, [Richard.Cannon@dot.wi.gov](mailto:Richard.Cannon@dot.wi.gov)
- Jeff Gustafson, I-39 CMT Traffic, [Jeffrey.Gustafson@dot.wi.gov](mailto:Jeffrey.Gustafson@dot.wi.gov)

## **17. Notice to Contractor, New or Revised Temporary Construction Access to IH 39/90.**

Traffic control and staging plans/details contained within the project plans shall be followed by the contractor. The contractor's use of any construction access point(s) to IH 39/90 which is/are not shown in the plans is prohibited without the prior written approval from FHWA and the department. To obtain written approval for temporary access to IH 39/90 during construction, the contractor shall provide the following:

Details on existing or new project plan sheets that show:

- The location, dimensions, grades, and slopes for any new/revised temporary construction access point(s) to IH 39/90.
- Traffic control measures that are required to manage this access change.
- Traffic control measures that are required to secure/close any new/revised construction access points when not in use
- Erosion control measures required to manage this change, including the location(s) of any tracking pad(s).

Written summary of proposed temporary construction access change including:

- Timeframe to construct, duration in place, and time to remove.
- Cost of proposed temporary access including grading, traffic control, erosion control, and all other items and incidentals to implement and remove the access.
- Benefits in implementing the change (i.e. cost or time savings, ease of construction, increased safety to workers and the motoring public).
- Signed Construction Permit if temporary access traverses private property.

The above information shall be provided to the engineer a minimum of 14 calendar days prior to the contractor's anticipated implementation of the new/revised temporary construction access to IH 39/90. The request will be reviewed, and if warranted, concurred with designated IH 39/90 CMT Traffic and Project staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If these parties concur with the request, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer will correspond with the following FHWA and department staff for concurrence:

- Johnny Gerbitz, FHWA, [Johnny.Gerbitz@dot.gov](mailto:Johnny.Gerbitz@dot.gov)
- Rich Cannon, I-39 CMT Traffic, [Richard.Cannon@dot.wi.gov](mailto:Richard.Cannon@dot.wi.gov)
- Jeff Gustafson, I-39 CMT Traffic, [Jeffrey.Gustafson@dot.wi.gov](mailto:Jeffrey.Gustafson@dot.wi.gov)

In the event of an emergency situation the above review process, including the extent of information required to be submitted and approval timeframes, can be modified if agreed upon by all parties.

## **18. Notice to Contractor - Airport Operating Restrictions - General.**

A temporary permit is not required from the Federal Aviation Administration (FAA) for the permanent or temporary installations that are included in the plans as long as the contractor uses equipment that will not exceed 200 feet above ground level. The contractor shall submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA a minimum of 45 days before beginning construction operations that propose to use equipment that will exceed 200 feet above ground level.

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

Contact Justin Hetland, Airspace Safety Program Manager, Bureau of Aeronautics at (608) 267-5018 ([Justin.Hetland@dot.wi.gov](mailto:Justin.Hetland@dot.wi.gov)) with any questions. Refer to the following FAA website for instructions to complete the form and the required information.  
<http://oeaaa.faa.gov/oeaaa/external/portal.jsp>

## **19. Clearing and Grubbing, Items 201.0105, and 201.0205.**

*Supplement standard spec 201.3 with the following:*

The emerald ash borer (EAB) has resulted in a quarantine of ash trees (*Fraxinus, sp*) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees species attacked by emerald ash borer include the following:

- Green ash (*F. pennsylvanica*) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.
- Black ash (*F. nigra*) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.
- Blue ash (*F. quadrangulata*) is a threatened species that is currently found only at a few sites in Waukesha County. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance. Blue ash twigs are 4-sided.
- White ash (*F. americana*) tends to occur primarily in upland forests, often with *Acer saccharum*.
- Includes all horticultural cultivars of these species.

(Note: blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems.)

Mountain ash (*Sorbus Americana* and *S. decora*) is not a true ash and is not susceptible to EAB infestation.

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with flagging tied around the trunk perimeter (florescent lime is suggested as it isn't identified with other project activities).

Follow and obey the following DATCP order:

**ATCP 21.17 Emerald Ash Borer, Import Controls and Quarantine**

- Importing or moving regulated items from infested areas; prohibition.

Except as provided in sub. (3), no person may do any of the following:

- Import a regulated item under sub. (2) into this state if that item originates from an emerald ash borer regulated area identified in 7CFR 301.53-3.
- Move any regulated item under sub. (2) out of an emerald ash borer regulated area that is identified in 7CFR 301.53-3 and located in this state.

Note: the United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) periodically updates the list of regulated areas in 7CFR 301.53-3. Subsection (1) applies to new regulated areas as those areas are identified in the CFR.

- Regulated items.

The following are regulated items for purposes of sub. (2):

- The emerald ash borer, *Agrilus planipennis* Fairmaire in any living stage.
- Ash trees.
- Ash limbs, branches, and roots.
- Ash logs, slabs or untreated lumber with bark attached.
- Cut firewood of all non-coniferous species.
- Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.
- Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

### **Regulatory Considerations**

The quarantine means that ash wood products may not be transported out of the quarantined area.

Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for disposal:

#### **Chipped ash trees**

- May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.
- May be buried on site within the right-of-way according to standard spec 201.3 (14).
- May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer according to standard spec 201.3 (15).
- May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).

## **20. Debris Containment B-53-0073, Item 203.0225.S.001.**

### **A Description**

This special provision describes providing a containment system to prevent debris from structure removal, reconstruction, or other construction operations from falling onto facilities located under the structure. Using this containment system does not relieve the contractor of requirements under standard spec 107.17 and standard spec 107.19 or requirements under a US Army Corps of Engineers Section 404 Permit.

### **B (Vacant)**

### **C Construction**

Prior to starting work, submit a debris containment plan to the engineer for review. Incorporate engineer-requested modifications. Do not start work over Newville Road until the engineer approves the debris containment plan.

Maintain adequate protection throughout construction for people and property within the potential fall zone. Ensure that a containment system capable of protecting underlying facilities from falling construction debris is in place before beginning deck repair, parapet removal, or other operations that may generate debris.

At least 15 working days before conducting potential debris generating operations, contact the following owners or lessees: Emmanuel Yartey, (608) 884-7131

### **D Measurement**

The department will measure Debris Containment B-53-0065, B-53-0073, B-53-0085, and B-53-0042 as a single lump sum unit of work for each structure, acceptably completed.



## **E Payment**

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

| ITEM NUMBER    | DESCRIPTION                  | UNIT |
|----------------|------------------------------|------|
| 203.0225.S.003 | Debris Containment B-53-0073 | LS   |

Payment is full compensation for furnishing, installing, maintaining, and removing a debris containment system.

203-010 (20080902)

## **21. Roadway Excavation.**

*Supplement standard spec 205.5.2(1) to include the following:*

Provide the department with an earth flow diagram within 30 calendar days of receiving the contract Notice to Proceed.

Identify on the earth flow diagram, all excavation material within the project; material shrinkage and swell factors; acceptable on-site material available for use as embankment within the project; anticipated off-site material that will be required for use as embankment within the project (if applicable); and anticipated material to be disposed of off-site (if applicable). It is the sole responsibility of the contractor to prepare their individual investigation and testing program to establish material shrinkage and swell factors.

## **22. Borrow.**

*Replace standard spec 208.1(1) with the following:*

This section describes constructing embankments and other portions of the work consistent with the earthwork summary and defines the contract requirements for embankment material if required by the plans or if the contractor elects to utilize off-site material to complete the roadway embankments.

*Delete standard spec 208.2.2(2).*

*Supplement standard spec 208.3 to include the following:*

The contractor shall be responsible for complying with all permit requirements in obtaining embankment materials.

*Replace standard spec 208.4 with the following:*

The department will not measure embankment material from its source.

*Replace standard spec 208.5 with the following:*

The department will not pay directly for work specified under this section. This work is incidental to the Roadway Embankment bid item.

## **23. Select Borrow.**

Conform to the requirements of standard spec 208 and as hereinafter provided.

### **Material**

Furnish and use material that consists of granular material meeting the following requirements: Maximum particle size of 12 inches when measured from any face. The material passing the No. 4 sieve shall have a maximum of 20% by weight passing the No. 200 sieve.

208-005 (20031103)

## **24. QMP Base Aggregate.**

### **A Description**

#### **A.1 General**

(1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:

1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

<http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>

## A.2 Contractor Testing for Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.

2. Divide the aggregate into uniformly sized sublots for testing as follows:

| Plan Quantity                      | Minimum Required Testing   |
|------------------------------------|--|
| $\leq 1500$ tons                   | One test from production, load-out, or placement at the contractor's option <sup>[1]</sup>                           |
| $> 1500$ tons and $\leq 6000$ tons | Two tests of the same type, either from production, load-out, or placement at the contractor's option <sup>[1]</sup> |
| $> 6000$ tons and $\leq 9000$ tons | Three placement tests <sup>[2] [3]</sup>   |

<sup>[1]</sup> If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

<sup>[2]</sup> For 3-inch material, obtain samples at load-out.

<sup>[3]</sup> If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Department verification testing is optional for quantities of 6000 tons or less.

(3) Material represented by a subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

## B Materials

### B.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

(2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

## B.2 Personnel

(1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

| <b>Required Certification Level:</b>  | <b>Sampling or Testing Roles:</b>  |
|---|--|
| Aggregate Technician IPP<br>Aggregate Sampling Technician<br>Aggregate Assistant Certified Technician (ACT-AGG) | Aggregate Sampling <sup>[1]</sup>  |
| Aggregate Technician IPP<br>Aggregate Assistant Certified Technician (ACT-AGG)                                  | Aggregate Gradation Testing,<br>Aggregate Fractured Particle<br>Testing, Aggregate Liquid<br>Limit and Plasticity Index<br>Testing |

<sup>[1]</sup> Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

(2) A certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

## B.3 Laboratory

(1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section  
3502 Kinsman Blvd.  
Madison, WI 53704  
Telephone: (608) 246-5388  
<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

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

### **B.4.1 General**

(1) Submit base aggregate placement documentation to the engineer within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts.

### **B.4.2 Records**

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

### **B.4.3 Control Charts**

(1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.
2. Department QV tests.
3. Department IA tests.
4. Four-point running average of the QC tests.

(3) Except as specified under B.8.2.1 for nonconforming QV tests, include only QC tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

## **B.5 Contractor Testing**

(1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.

(2) Test gradation once per 3000 tons of material placed. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.
- (4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.
- (6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

## **B.6 Test Methods**

### **B.6.1 Gradation**

- (1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:

Gradation..... AASHTO T 27  
Material finer than the No. 200 sieve..... AASHTO T 11

- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.
- (3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
  1. Control limits are at the upper and lower specification limits.
  2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
  3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
  4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

### **B.6.2 Fracture**

- (1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.

- (2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

### **B.6.3 Liquid Limit and Plasticity**

- (1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.
- (2) Ensure the material conforms to the limits specified in standard spec table 301-2.

## **B.7 Corrective Action**

### **B.7.1 General**

- (1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

### **B.7.2 Placement Corrective Action**

- (1) Do not blend additional material on the roadbed to correct gradation problems.
- (2) Notify the engineer whenever the running average exceeds a warning limit. When 2 consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
  1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
  2. For fracture, increase the QC testing frequency to at least one test per gradation test.
- (3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.
- (4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.
- (5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
3. The fracture control limit is exceeded by more than 10.0 percent.

## **B.8 Department Testing**

### **B.8.1 General**

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

### **B.8.2 Verification Testing**

#### **B.8.2.1 General**

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:

1. One non-random test on the first day of placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.

(4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.



### **B.8.3 Independent Assurance**

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

### **B.9 Dispute Resolution**

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

**C (Vacant)**

**D (Vacant)**

## E Payment

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

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20100709)

### 25. Base Aggregate Dense 3/4 –Inch, Item 305.0110.

*Revise standard spec 301.2.4.3 as follows:*

Furnish aggregate classified as crushed stone, from a department-approved quarry, for 3/4-inch base when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

### 26. Base Aggregate Dense 1 1/4-Inch, Item 305.0120.

*Revised standard spec 301.2.4.3 as follows:*

Furnished aggregate classified as crushed stone for 1-1/4 inch base when used in the top 3 inches of the unpaved portion of the shoulder.

*Revise standard spec 305.2.2.1 as follows:*

Use 1 1/4-Inch base aggregate that conforms to the following gradation requirements.

| SIEVE      | PERCENT PASSING BY WEIGHT  |
|------------|----------------------------|
| 1 1/4 inch | 95 - 100                   |
| 1 inch     | ---                        |
| 3/4 inch   | 70 - 90                    |
| 3/8 inch   | 45 - 75                    |
| No. 4      | 30 - 60                    |
| No. 10     | 20 - 40                    |
| No. 40     | 7 - 25                     |
| No. 200    | 2 - 12 <sup>[1], [2]</sup> |

<sup>[1]</sup> Limited to a maximum of 8.0 percent for base placed between old and new pavement.

<sup>[2]</sup> 3 - 10 percent passing when base is <sup>3</sup> 50% crushed gravel

## 27. HMA Pavement Modification.

This special provision describes specialized material requirements for HMA Pavements. Conform to standard spec 460, as modified in this special provision.

*Replace Table 460-2 under 460.2.7 with the following:*

| Mixture type  | E - 0.3                | E - 1                  | E - 3                  | E - 10           | E - 30           | E - 30x          | SMA               |
|---|------------------------|------------------------|------------------------|------------------|------------------|------------------|-------------------|
| ESALs x 10 <sup>6</sup><br>(20 yr design life)  | < 0.3                  | 0.3 - < 1              | 1 - < 3                | 3 - < 10         | 10 - < 30        | >= 30            |                   |
| LA Wear<br>(AASHTO T96)<br>100 revolutions<br>(max % loss)<br>500 revolutions<br>(max % loss) | 13<br>40               | 13<br>40               | 13<br>40               | 13<br>40         | 13<br>40         | 13<br>40         | 13<br>40          |
| Soundness<br>(AASHTO T104)<br>(sodium sulfate,<br>max % loss)                                 | 9.0                    | 9.0                    | 9.0                    | 9.0              | 9.0              | 9.0              | 9.0               |
| Freeze/Thaw<br>(AASHTO T103)<br>(specified counties,<br>max % loss)                           | 12                     | 12                     | 12                     | 12               | 12               | 12               | 12                |
| Fractured Faces<br>(ASTM 5821)<br>(one face/2 face, %<br>by count)                            | 60 /                   | 65 /                   | 75 / 60                | 85 / 80          | 98 / 90          | 100/100          | 100/90            |
| Flat and Elongated<br>(ASTM D4791)<br>(max %, by weight)                                      | 5<br>(5:1 ratio)       | 5<br>(5:1 ratio)       | 5<br>(5:1 ratio)       | 5<br>(5:1 ratio) | 5<br>(5:1 ratio) | 5<br>(5:1 ratio) | 20<br>(3:1 ratio) |
| Fine Aggregate<br>Angularity<br>(AASHTO T304,<br>method A, min)                               | 40                     | 40                     | 43                     | 45               | 45               | 45               | 45                |
| Sand Equivalency<br>(AASHTO T176,<br>min)   | 40                     | 40                     | 40                     | 45               | 45               | 50               | 50                |
| Gyratory<br>Compaction<br>Gyrations for Nini<br>Gyrations for Ndes<br>Gyrations for<br>Nmax   | 6<br>40<br>60          | 7<br>60<br>75          | 7<br>75<br>115         | 8<br>100<br>160  | 8<br>100<br>160  | 9<br>125<br>205  | 8<br>65<br>160    |
| Air Voids, %V <sub>a</sub><br>(%G <sub>mm</sub> N <sub>des</sub> )                            | 4.0 (96.0)             | 4.0 (96.0)             | 4.0 (96.0)             | 4.0 (96.0)       | 4.0 (96.0)       | 4.0 (96.0)       | 4.0 (96.0)        |
| % G <sub>mm</sub> N <sub>ini</sub>  | <= 91.5 <sup>[1]</sup> | <= 90.5 <sup>[1]</sup> | <= 89.0 <sup>[1]</sup> | <= 89.0          | <= 89.0          | <= 89.0          | _____             |

| Mixture type  | E - 0.3                               | E - 1                  | E - 3                  | E - 10                                | E - 30                                | E - 30x                               | SMA       |
|---|---------------------------------------|------------------------|------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----------|
| % G <sub>mm</sub> N <sub>max</sub>                                    | <= 98.0                               | <= 98.0                | <= 98.0                | <= 98.0                               | <= 98.0                               | <= 98.0                               | _____     |
| Dust to Binder Ratio <sup>[2]</sup><br>(% passing)                    | 0.6 - 1.2                             | 0.6 - 1.2              | 0.6 - 1.2              | 0.6 - 1.2                             | 0.6 - 1.2                             | 0.6 - 1.2                             | 1.2 - 2.0 |
| Voids filled with Binder (VFB or VFA, %)                              | 70 - 80 <sup>[4]</sup> <sup>[5]</sup> | 65 - 78 <sup>[4]</sup> | 65 - 75 <sup>[4]</sup> | 65 - 75 <sup>[3]</sup> <sup>[4]</sup> | 65 - 75 <sup>[3]</sup> <sup>[4]</sup> | 65 - 75 <sup>[3]</sup> <sup>[4]</sup> | 70 - 80   |
| Tensile Strength Ratio (TSR) (ASTM 4867)<br>no antistripping additive | 0.70                                  | 0.70                   | 0.70                   | 0.70                                  | 0.70                                  | 0.70                                  | 0.70      |
| with antistripping additive   | 0.75                                  | 0.75                   | 0.75                   | 0.75                                  | 0.75                                  | 0.75                                  | 0.75      |
| Draindown at Production Temperature (%)                               | _____                                 | _____                  | _____                  | _____                                 | _____                                 | _____                                 | 0.30      |

<sup>[1]</sup> The percent maximum density at initial compaction is only a guideline.

<sup>[2]</sup> For a gradation that passes below the boundaries of the caution zone (ref. AASHTO MP3), the dust to binder ratio limits are 0.6 - 1.6.

<sup>[3]</sup> For 9.5mm nominal maximum size mixtures, the specified VFB range is 73 - 76%.

<sup>[4]</sup> For 37.5mm nominal maximum size mixes, the specified VFB lower limit is 67%.

<sup>[5]</sup> For 25.0mm nominal maximum size mixes, the specified VFB lower limit is 67%.

## 28. QMP HMA Pavement Nuclear Density.

### A Description

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

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:

<http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>

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

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

## **B Materials**

### **B.1 Personnel**

(1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.

(2) If an ACT is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

### **B.2 Testing**

(1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

### **B.3 Equipment**

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

(1) Furnish nuclear gauges from the department's approved product list at <http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm>.

(2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.

(3) Prior to each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:

Materials Management Section  
3502 Kinsman Blvd.  
Madison, Wisconsin 53704  
Telephone: (608) 243-5998

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

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

(1) Select a representative section of the compacted pavement prior to or on the first day of paving for the correlation process. The section does not have to be the same mix design.

- (2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.
- (3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft<sup>3</sup>. Measure and record the density on the 5 additional test sites for each gauge.
- (4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft<sup>3</sup> and repeat correlation process from B.3.2.1 (2).
- (5) Furnish one of the QC gauges passing the allowable correlation tolerances to perform density testing on the project.

#### **B.3.2.2 Correlation Monitoring**

- (1) After performing the gauge correlation specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.
- (2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.
- (3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft<sup>3</sup> of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft<sup>3</sup> of its reference value established in B.3.2.2(2).
- (4) Maintain the reference site test data for each gauge at an agreed location.

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

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

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

- (1) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.
- (2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.

(3) A subplot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

(4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full subplot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate subplot for that partial quantity.

(5) Randomly select test locations for each subplot as specified in CMM 8.15 prior to paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests prior to opening the roadway to traffic.

(6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

| <b>Lane Width</b>         | <b>No. of Tests</b> | <b>Transverse Location</b>   |
|---------------------------|---------------------|------------------------------|
| 5 ft or less              | 1                   | Random                       |
| Greater than 5 ft to 9 ft | 2                   | Random within 2 equal widths |
| Greater than 9 ft         | 3                   | Random within 3 equal widths |

**Table 1**

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

(1) A lot represents a combination of the total daily tonnage for each layer and target density.

(2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one subplot for each layer.

(3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.

(4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per subplot and perform the number of random tests as specified in Table 2.

| <b>Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage</b> | <b>Minimum Number of Tests Required</b> |
|---|---|
| 25 to 100 tons  | 1                                       |
| 101 to 250 tons   | 3                                       |
| 251 to 500 tons   | 5                                       |
| 501 to 750 tons   | 7                                       |

**Table 2**

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

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

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

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

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

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

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

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

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

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

### **B.4.2.4 Documentation**

- (1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

## **B.4.3 Corrective Action**

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is



in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.

- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be according to standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If 2 consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

## **B.5 Department Testing**

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

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

(6) If the QV and QC subplot averages differ by more than 1.0 lb/ft<sup>3</sup> after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

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

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

#### **B.6 Dispute Resolution**

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge correlation according to B.3.2.1.

(2) The testers may use correlation monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV subplot density test results or retesting of the subplot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

(4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

#### **B.7 Acceptance**

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

#### **C (Vacant)**

#### **D (Vacant)**

#### **E Payment**

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

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

## **E.2 Disincentive for HMA Pavement Density**

(1) The department will administer density disincentives according to standard spec 460.5.2.2.

## **E.3 Incentive for HMA Pavement Density**

(1) Delete standard spec 460.5.2.3.

(2) If the lot density is greater than the minimum specified in standard spec table 460-3 and all individual air voids test results for that mixture are within +1.0 percent or - 0.5 percent of the design target in standard spec table 460-2, the department will adjust pay for that lot as follows:

| <b>Percent Lot Density Above Minimum</b> | <b>Pay Adjustment Per Ton</b> |
|--|-------------------------------|
| From -0.4 to 1.0 inclusive               | \$0                           |
| From 1.1 to 1.8 inclusive                | \$0.40                        |
| More than 1.8                            | \$0.80                        |

(3) The department will adjust pay under the Incentive Density HMA Pavement bid item. Adjustment under this item is not limited, either up or down, to the bid amount shown on the schedule of items.

(4) If a traffic lane meets the requirements for disincentive, the department will not pay incentive on the integrally paved shoulder.

(5) Submit density results to the department electronically using the MRS software. The department will validate all contractor data before determining pay adjustments.  
460-020 (20100709)

## **29. Concrete Pavements.**

This special provision describes specialized material requirements for aggregates used in Concrete Pavements. Conform to standard specs 415 and 501, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

*Replace standard spec 501.2.5.4.1 with the following:*

### **501.2.5.4.1 General**

- (1) Provide coarse aggregates from a department-approved source as specified under standard spec 106.3.4.2.
- (2) Use clean, hard, durable crushed gravel or crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.
- (3) Use virgin aggregates only.

*Replace the first paragraph of standard spec 501.2.5.4.2 with the following:*

- (1) The amount of deleterious substances must not exceed the following percentages:

| DELETERIOUS SUBSTANCE                              | PERCENT BY WEIGHT |
|--|-------------------|
| Shale.....   | 1.0               |
| Coal.....  | 1.0               |
| Clay lumps .....                                   | 0.3               |
| Soft fragments.....                                | 5.0               |
| Any combination of above.....                      | 5.0               |
| Thin or elongated pieces based on a 3:1 ratio..... | 15.0              |
| Materials passing the No. 200 sieve .....          | 1.5               |
| Chert <sup>[1]</sup> .....                         | 2.0               |

<sup>[1]</sup>Material classified lithologically as chert and having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of chert by dividing the weight of chert in the sample retained on a 3/8-inch sieve by the weight of the total sample.

*Replace the first paragraph of standard spec 501.2.5.4.3 with the following:*

- (1) The percent wear shall not exceed 40, the weighted soundness loss shall not exceed 9 percent, and the weighted freeze-thaw average loss shall not exceed 12 percent.

### **30. Aggregate Quality Testing for Concrete Pavement and HPC Structure Mixes.**

#### **A Description**

- (1) This provision describes additional requirements for testing the quality of coarse aggregates being used in concrete mixes for pavements and HPC structures.
- (2) Conform to the standard specifications and high-performance concrete provisions contained within the contract, as modified in this provision.

#### **B Materials**

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

- (1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling, testing, and documentation.

## **B.2 Laboratory**

- (1) Perform testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section

3502 Kinsman Blvd.

Madison, Wisconsin 53704

Telephone: 608-246-5388

<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

## **B.3 Equipment**

- (1) Furnish the necessary equipment and supplies for performing quality control testing. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

## **B.4 Records**

- (1) Document all observations, inspection records, and test results. Submit testing records to the engineer.

## **B.5 Contractor Testing**

- (1) Perform all quality control tests necessary to control the production processes applicable to this special provision. Use the test methods identified below, or other methods the engineer approves, to perform the following tests:

|  |              |
|--|--------------|
| LA Wear (100 and 500 revolutions)        | AASHTO T 96  |
| Sodium Sulfate Soundness (R-4, 5 cycles) | AASHTO T 104 |
| Freeze-Thaw Soundness                    | AASHTO T 103 |
| Chert <sup>[1]</sup>                     |              |

<sup>[1]</sup>Material classified lithologically as chert and having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of chert by dividing the weight of chert in the sample retained on the 3/8-inch sieve by the weight of the total sample.

- (2) The department may periodically observe contractor sampling and testing, and direct additional contractor sampling and testing for department evaluation. Ensure that all test results are available for the engineer's review at any time during normal working hours.

- (3) In addition to the requirements of standard spec 106.3.4.2.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and chert at least once per calendar year when producing coarse aggregates for use in concrete pavement or HPC structure concrete mixes.

- (4) Randomly test the percentage of chert at least once per 10,000 tons during production of coarse aggregates to be used in concrete pavement and HPC structure mixes or at least once per 10,000 cubic yards during placement of concrete pavement.

#### **B.6 Department Testing**

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will sample randomly at locations independent of the contractor's QC work. In all cases, the department will conduct the verification tests with separate personnel and equipment from the contractor's QC tests. The department will perform verification testing of chert at a frequency of 10 percent of the random quality control tests or a minimum of once per project, or at greater frequency if determined to be necessary by the engineer.

#### **C (Vacant)**

#### **D (Vacant)**

#### **E Payment**

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay.

### **31. HMA Overlay Polymer-Modified, Item 509.3500.S.**

#### **A Description**

This special provision describes providing a polymer-modified HMA overlay on bridge decks.

#### **B Materials**

##### **B.1 Mixture Composition**

Furnish a mixture composed of fine and coarse aggregates, mineral filler if used, asphalt cement, and polymer modifier additive. Ensure that the final job mix design conforms to polymer modifier manufacturer requirements and is approved by the engineer.

Use fine and coarse aggregate conforming to standard spec 460.2.2. Do not use blast furnace slag, expanded shale, porous limestone, lightweight aggregates, or other porous aggregate. Ensure that mineral filler, if used, conforms to standard spec 450.

Use asphalt cement conforming to standard spec 455 and virgin thermoplastic polymer modifier additive. Furnish additive packaged in 22.5-pound meltable polyethylene bags, in 2,025-pound super sacks containing 45 units per sack, or as bulk material in tankers.

##### **B.2 Deck Preparation Materials**

Furnish tack coat and edge sealer conforming to the polymer modifier manufacturer's requirements. Furnish rubberized asphalt joint sealer conforming to ASTM D3405, or if the polymer modifier manufacturer recommends, use a 20-inch wide strip of geotextile paving fabric applied according to their recommendations.

## **C Construction**

### **C.1 General**

Ensure that an on-site polymer modifier manufacturer representative oversees mixture production, placement, and compaction of polymer-modified HMA.

### **C.2 Proportioning and Mix Design**

Seven days before the pre-construction meeting, submit the name and location of the intended sources for bituminous pavement products. Furnish HMA mixture from an engineer-approved automated plant conforming to ASTM D995 and SS405 and equipped with interlocks and printouts.

Coordinate with the polymer modifier manufacturer to formulate a job mix formula (JMF). Submit a JMF to the engineer that shows the gradation and conforms to the generic requirements under this special provision. As a part of the submittal include the following:

- Mineral aggregate sources and types.
- Grade and source of bituminous material.
- Type and source of all asphalt modifiers.
- Samples of aggregates to be used.

Submit a complete HMA mix design to the engineer according to department test method 1559 described in CMM 8.65.5. Submit a new JMF for engineer review if changing the production plant, aggregate, asphalt, or asphalt modifier.

### **C.3 Verification of the JMF**

Unless the asphalt content (AC) of specimens used to develop the JMF is the same as the proposed design AC, prepare additional specimens at the proposed AC to ensure that gyratory test results accurately represent the design.

**Generic Formulation of the PolymerModified HMA Mixture**

| Sieve Size, metric<br>(imperial) | Nominal size of<br>aggregate/Percent<br>passing<br>9.5mm | Gradation Control<br>on JMF |
|----------------------------------|--|-----------------------------|
| 12.5 mm (1/2")                   | 100  | ± 7 %                       |
| 9.5 mm (3/8")                    | 90 – 100   | ± 7 %                       |
| 4.75 mm (#4)                     | 55 – 85  | ± 7 %                       |
| 2.36 mm (#8)                     | 32 – 67  | ± 4 %                       |
| 1.18 mm (#16)                    | Report   | ± 4 %                       |
| 600 microns (#30)                | Report   | ± 4 %                       |
| 300 microns (#50)                | 7 – 23   | ± 4 %                       |
| 150 microns (#100)               | Report   | ± 4 %                       |
| 75 microns (#200)                | 2 – 10   | ± 2 %                       |

AC (% Total Mix) 5.0% minimum

Thermoplastic Polymer 2.25% by weight of total mix

### Generic Minimum/Maximum Desired Physical Properties of the Design Mixture

| Volumetric mix design parameters |                                      |   |
|----------------------------------|--------------------------------------|---|
| Volumetric parameter             | Control requirement                  | Nominal size of aggregate/percent passing |
|                                  |                                      | 9.5mm                                     |
| Gyratory volumetric requirements |                                      |   |
| VMA                              | Minimum                              | 16.5%                                     |
| VFA                              | Minimum                              | 90.0%                                     |
| %G <sub>mm</sub>                 | @ N <sub>ini</sub><br>(6 gyrations)  | >87.0%                                    |
| %G <sub>mm</sub>                 | @ N <sub>des</sub><br>(50 gyrations) | 99.0%                                     |
| %G <sub>mm</sub>                 | @ N <sub>max</sub><br>(75 gyrations) | >99.0%                                    |

Target Void Percentage: 1%

Weigh and heat aggregates for batching in an oven to 401 - 419 F. Add polymer modifier at a rate of 45 pounds per ton of mix or 2.25 percent of total batch weight. Dry mix the heated aggregate and the polymer modifier for 10 seconds at 374 - 383 F; introduce AC-binder at 302 - 320 F; and mix together for 90 seconds. Mix until aggregates are completely and uniformly coated. Verify that the temperature of the finished mix is 347 - 374 F. After mixing is completed, condition the material according to AASHTO R30 before compacting. Compact at 338 - 356 F. Evaluate the gyratory specimen at N<sub>ini</sub>= 6, N<sub>des</sub>=50, and N<sub>max</sub>=75 gyrations regardless of class designation or aggregate structure.

After reviewing the JMF, the engineer will authorize initial placement. Once production begins, provide the engineer daily certification that in-place materials conform to the JMF and contract specifications.

Polymer modifier manufacturer personnel shall certify material production, take samples, and are authorized to reject material not meeting contract specifications. The polymer modifier manufacturer shall retain samples available upon engineer request for department examination and testing throughout the contract duration. The engineer may take additional independent samples and examine certifications to verify material quality.

Provide the engineer with access to the plant and equipment as necessary to review and verify certifications of material quality. The engineer may reject affected mixture placed if the contractor fails to perform quality control or submits an incorrect certification. The engineer may halt production and require the contractor to dispose of material due to temperature, oxidation, contamination, segregation, or incomplete coating of aggregate. The engineer may base rejection on visual inspection.



#### **C.4 Deck Preparation**

After deck patching and before placing polymer-modified HMA, prepare the deck surface. Cure the repaired deck a minimum of seven days before placing the polymer-modified HMA overlay. Ensure that a polymer modifier manufacturer representative is present to oversee edge sealer and tack coat application.

Prepare the entire deck surface area by shot blasting. Include the vertical face of curbs or parapets to the specified finish overlay surface elevation. Collect and dispose of used steel shot and dust. Remove pavement-marking lines within the cleaning area to prevent bleeding through the tack coat. After shot blasting operations, clean the deck by sweeping, air blasting, pressure washing, or other engineer-approved method.

Clean the existing surfaces to remove any milled material or debris which would reduce or prevent bonding. Ensure that the surface is clean, dry, and free from loose debris or other contaminants. Saw cut and seal construction joints. Apply edge sealer and tack coat. Place an impermeable hot-mix waterproofing asphalt course on the cleaned and tack coated bridge deck, to the lines, grades, width, and depth the plans show.

Seal all edges of the planned day's placement of the asphalt waterproofing course with 4-6 inches of edge sealer applied at the manufacturer specified rate. Ensure that vertical edges of headers, drains, scuppers, expansion joints, or other areas where compaction may be difficult to achieve are adequately sealed. For vertical edges, apply sealer from the specified finish overlay surface elevation and out horizontally 4-6 inches. Maximize drying time by sealing as early as possible on the day of, or even the day before, overlay placement.

#### **C.5 Placement**

Before placing tack coat, ensure that the deck moisture is 6 percent or less. Apply tack coat at a rate of 0.07 to 0.15 gallons per square yard without puddles for concrete decks and at 0.04 to 0.1 gallons per square yard for steel decks. Cover and protect all deck drains and joints before paving.

Place the polymer-modified material in a uniform 2-inch thick layer.

Seal butt joints made during paving that have cooled below 150 F before placing the adjoining asphalt lift. Saw cut construction joints 1/2 inch wide and fill to within 1/8 inch of the surface with joint sealer. Do not overfill sawed joints since excess sealer will cause surface ripples requiring contractor correction.

Apply edge sealer to all terminations of the paved asphalt, including curb lines and deck joints, as soon as possible after the pavement has cooled.

#### **C.6 Compaction**

Because of higher compaction temperatures, use extra water applied evenly across the mat to keep material from sticking to the steel rolls.

Compact within a temperature range of 212 - 374 F conforming to standard spec 450.3.2.6. Use a minimum of two static rollers, one for break down and one for finish rolling. Have a third roller available on the job as a backup. Ensure that roller unit compression is 250 pounds or more per inch of driving roll width. Use three-wheel and tandem steel-wheel rollers with a manufacturer's rating of eight tons or more or use three-axle tandem steel-wheel rollers with a manufacturer's rating of 12 tons or more. Do not use pneumatic tired rollers. The contractor may use other compaction means in areas that cannot be accessed by the specified roller. The contractor may use an asphalt vibrator wacker with a water system.

Breakdown roll closely behind the spreading operation and finish roll to remove mat imperfections. Use a straight rolling pattern aligned with the paving direction. Do not turn except as necessary to move from pass to pass. Use the pattern and frequency the polymer modifier manufacturer's representative specifies. Do not change paving or rolling procedures without approval from the polymer modifier manufacturer's representative.

The department will waive the contract QMP HMA pavement nuclear density requirements for polymer-modified HMA overlay work.

#### **D Measurement**

The department will measure HMA Overlay Polymer-Modified by the ton, acceptably completed.

#### **E Payment**

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

| ITEM NUMBER | DESCRIPTION                  | UNIT |
|-------------|------------------------------|------|
| 509.3500.S  | HMA Overlay Polymer-Modified | TON  |

Payment is full compensation for providing overlays including mixture design and surface preparation; and for the polymer modifier manufacturer's on-site mix production and placement oversight.

The department will pay separately for repairs under the Curb Repair, Concrete Surface Repair, and Full-Depth Deck Repair bid items as specified in standard spec 509.509-035 (20141107)

### **32. Blue Specific Service Signs.**

*Add the following to standard spec 638.3.4:*

Do not remove or move blue specific service signs or their associated posts. Specific service signs are signs with logos that identify commercial entities providing gas, food, lodging, camping, or attractions. A separate contractor, Interstate Logos - Wisconsin, is responsible for these signs. Contact Interstate Logos - Wisconsin at (844) 496-9163 a minimum of 14 calendar days in advance to coordinate removing, moving, or re-installation of these signs.

The contractor is responsible for damage done to these signs due to contractor operations.  
638-010 (20150630)

### **33. Traffic Control Signs, Item 643.0900.**

This special provision describes mounting height requirements and sign support requirements. Conform to standard spec 643, as modified in this special provision.

*Supplement standard spec 643.2.9.1(5) as follows:*

Provide associated advanced signing, including portable traffic control signing, according to the MUTCD. Mount all portable traffic control sign at a minimum height of 5 feet, measured from the bottom of the sign, above the edge of pavement.

### **34. Truck or Trailer-Mounted Attenuator, Item 643.1055.S.**

#### **A Description**

(1) This special provision describes protecting work operations with a truck or trailer-mounted attenuator (TMA).

#### **B Materials**

(1) Furnish and maintain a TMA conforming to NCHRP Report 350 test level 3 or to MASH crashworthiness criteria. Submit written certification from the manufacturer that the host vehicle/attenuator configuration provided conforms to crashworthiness criteria. Include the federal-aid reimbursement eligibility letter with that submittal.

(2) Provide a host vehicle and mount the attenuator conforming to the attenuator manufacturer's specifications. Provide the engineer a copy of the manufacturer's specifications and installation instructions.

#### **C Construction**

(1) Coordinate with the engineer at least 72 hours before its intended use so the engineer can determine if the work operation requires TMA protection.

(2) Position the attenuator at a manufacturer-recommended location in advance of a stationary work operation. Position and maintain the attenuator consistently at the manufacturer-recommended distance from a mobile work operation. Ensure that an operator stays with the host vehicle while protecting a mobile work operation.

#### **D Measurement**

(1) The department will measure Truck or Truck-Trailer-Mounted Attenuator by the day, acceptably completed, measured to the 1/2-day based on the engineer-determined time the attenuator is required to protect work operations. The department will measure 4 or less hours per calendar day as a half day and over 4 hours as a full day.

## **E Payment**

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

| ITEM NUMBER | DESCRIPTION                         | UNIT |
|-------------|-------------------------------------|------|
| 643.1055.S  | Truck or Trailer-Mounted Attenuator | DAY  |

(2) Payment is full compensation for providing the portable attenuator, host vehicle, and operator.

643-015 (20140630)

## **35. Traffic Control.**

*Supplement standard spec 643.3.1 with the following:*

Have available at all times sufficient experienced personnel to promptly install, remove and reinstall the required traffic control devices to route traffic in order to perform the operations.

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

Do not permit equipment or vehicles to directly cross the live traffic lanes of the highway. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic. Equip all contractor's vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light). Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders.

All construction vehicles and equipment operating on or near roadways open or closed to traffic, shall be equipped with at least one flashing amber light. The flashing amber light shall be activated when vehicles or equipment are operated on the roadway, parked in close proximity to the roadway, and when entering or exiting live lanes of traffic. The flashing amber light shall be mounted approximately midway between the transverse extremities of the vehicles or machinery and at the highest practical point that provides visibility from all directions. The light shall be of the flashing strobe or revolving type meeting the following minimum requirements:

### Flashing Strobe Type Light

360-degree lens

60 to 90 flashes per minute

5-inch minimum height

3-3/4 inch minimum diameter

### Revolving Type Light

360-degree lens

45 to 90 flashes per minute

4-5/8 inch minimum height

3-3/4 inch minimum diameter

The light shall be equipped with bulbs of 50 candlepower minimum. Mounting shall be either magnetic or permanent. No compensation for furnishing and installing the flashing amber light to contractor owned construction equipment or vehicles will be provided for in the contract.

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

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.

Cover existing signs which conflict with traffic control as directed by the engineer. The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

*Replace standard spec 643.3.1(6) with the following:*

Provide 24-hour a day availability of equipment, forces and materials to promptly restore barricades, lights, or other traffic control devices that are damaged or disturbed. Restore any barricade, light, or other traffic control so that the device is not out of service for more than two hours.

*Supplement standard spec 643.3.6(3) with the following:*

Place one flashing arrow board in advance of each lane closure taper and place one flashing arrow board within each lane closure taper at locations directed by the engineer.

## **36. Nighttime Work Lighting-Stationary.**

### **A Description**

Provide portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

### **B (Vacant)**

### **C Construction**

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

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days prior to the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.
3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

### **C.2 Portable Lighting**

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

### **C.3 Light Level and Uniformity**

Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

### **C.4 Glare Control**

Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

### **C.5 Continuous Operation**

Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

### **D (Vacant)**

### **E Payment**

Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.

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## **37. Roadway Embankment, Item SPV.0035.001.**

*Conform to standard spec 207 unless modified by this special provision.*

### **A Description**

*Replace standard spec 207.1(1) with the following:*

This section describes placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation, or excavation for structure sections; and material obtained under Borrow as specified in standard spec 208 and modified under these special provisions.

### **B Materials**

*Conform to standard spec 207.2.*

### **C Construction**

*Conform to standard spec 207.3.*

## **D Measurement**

*Replace standard spec 207.4(1) with the following:*

The department will measure Roadway Embankment by the cubic yard, acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

1. The engineer and contractor mutually agree to an alternative volume calculation method;
2. The method of average end areas is not feasible.

If it is not possible to compute volumes of the various classes of roadway and drainage embankment by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure embankment material beyond the limits of the required slopes as shown on the plans.

## **E Payment**

*Replace standard spec 207.5(1) with the following:*

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

| ITEM NUMBER  | DESCRIPTION        | UNIT |
|--------------|--------------------|------|
| SPV.0035.001 | Roadway Embankment | CY   |

Payment is full compensation for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments.

The department will pay for erosion control, fertilizing, and seeding of borrow sites and associated areas separately as specified for borrow sites and material disposal sites in standard spec 628.5.1.

## **38. Baseline CPM Progress Schedule, Item SPV.0060.001; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.002.**

*Replace standard spec 108.4 with the following:*

### **108.4 Critical Path Method Progress Schedule**

#### **108.4.1 Software**

Use the latest version of Oracle (Primavera) Project Manager (P6) version 7.0 or newer to prepare the Initial Work Plan Schedule, Baseline CPM Progress Schedule, and all Monthly CPM Updates.



#### **108.4.2 Personnel**

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for department approval a professional resume describing a minimum of three years of developing and managing specific CPM scheduling experience on major (interstate) highway reconstruction projects or projects of similar size and complexity. This includes recent experience using Oracle P6 software.

#### **108.4.3 Definitions**

The department defines terms used in standard spec 108.4 as follows:

##### **Activity**

A task, event or other project element on the schedule, during the course of the project that contributes to completing the project. Activities have a description, scheduled (or actual) start and finish dates, duration and one or more logic ties.

##### **Critical Path**

The longest continuous path of activities through the project that has the least amount of total float. In general, a delay on the critical path will extend the scheduled completion date.

##### **Critical Path Method (CPM)**

A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

##### **Construction Activity**

Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

##### **CPM Progress Schedule**

A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

##### **Data Date**

The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned."

##### **Department's Preliminary Construction Schedule**

The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

**Float**

Float, as used herein, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

**Forecast Completion Date**

The completion date(s) predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date(s), depending on progress.

**Fragnet**

A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order or delay impact.

**Initial Work Plan Schedule**

The Initial Work Plan (IWP) Schedule is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

**Intermediate Milestone Date**

A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.

**Master Program Schedule**

The department's schedule for the overall I-39/90 Corridor Management Program, including intermediate milestone dates contract completion dates and codes.

**Work Breakdown Structure (WBS)**

A framework for organizing the activities that makes up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

**108.4.4 Department's Preliminary Construction Schedule**

The department's Preliminary Construction Schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's Preliminary Construction Schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Construction Schedule reflects one possible approach to completing the work, consistent with the traffic phasing requirements and the interim/final completion date(s) contained in the contract. The logic contained in the Preliminary Construction Schedule is not intended to alter or supplement contract

requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's Preliminary Construction Schedule is at the sole risk of the contractor.

#### **108.4.5 Contractor's Scheduling Responsibilities**

The CPM Schedule shall be a tool capable of forward planning and monitoring the Project. The schedule will further be used as a communication tool between the contractor and the department. It will be used to illustrate the plan, develop what-if scenarios, and analyze impacts. The accuracy and completeness of the CPM Schedule will benefit both the contractor and the department. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines.

The contractor shall submit to the department initial and monthly update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule. Schedules shall show the order in which the contractor proposes to carry out the work with logical links between activities, and calculations made using the critical path method to determine the controlling operation or operations. The contractor is responsible for assuring that each schedule shows a coordinated plan for complete performance of the work. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Contractor project management personnel shall actively participate in the schedule development, the monthly updating of progress, and all schedule revisions throughout the entire duration of the contract. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate schedule.

#### **108.4.6 Submittals**

##### **108.4.6.1 Initial Work Plan Schedule**

Submit an Initial Work Plan (IWP) Schedule consisting of the following:

1. Provide a detailed plan of activities to be performed during the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
2. Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).
3. Provide activities as necessary to depict third-party work related to the contract.
4. Provide summary activities for the balance of the project beyond the first 90 calendar days of the project. Summary activities may have durations greater than 28 calendar days (20 business days).

5. Submit three copies of the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's. Submit the P6 native data file (XER) and an electronic file (PDF) to the following DOT email boxes; DOTDTSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

6. Following department receipt of the IWP Schedule, allow ten business days for department review and return of comments. Within five business days of receiving the IWP Schedule, the department will schedule a workshop for the contractor to present the IWP Schedule and to answer questions raised during the department's review. Provide formal responses to the comments and resubmit the IWP Schedule as necessary. A notice to proceed will not be issued until the engineer accepts the IWP Schedule. The department will use the IWP Schedule to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.

7. Submit an updated version of the IWP Schedule on a bi-monthly basis (every other week) until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

#### **108.4.6.2 Baseline CPM Progress Schedule**

Within ten business days of receiving an approved IWP Schedule, as required in the contract, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM schedule. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:

1.1 Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.

1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).

1.3 Provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to Railroads, Utilities, Real Estate and local government agencies.

1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and potential or approved weather delays; reflect involvement and reviews by the department; and coordination efforts with adjacent contractors, utility owners, and other third parties.

1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. Predecessors and successors shall not be linked to the same activity with different relationship types. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag or overlap unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.

1.6 Schedule activities shall include the following:

- a. A clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.
- b. Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.
- c. Activities shall carry a single Responsibility assignment.

1.7 Schedule all intermediate milestones in the proper sequence and input as either a “Start on or After” or “Finish on or Before” date. Do not use other constraint types, within the software, without prior approval by the engineer. Do not apply date constraints on any work tasks without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule shall encompass all the time in the contract period between the starting date and the specified completion date.

1.8 Develop an anticipated cash-flow curve for the project, based on the Baseline CPM schedule by assigning cost values to selective work tasks within the CPM schedule that total the value of the contract.

1.9 Provide budgeted quantities consistent with the bid quantities on selective construction tasks within the CPM schedule. The engineer will provide a summarized list of 30 generalized quantity items that will be identified and applied by the contractor using the P6 software application.

2. Provide three hard copies (11" x 17") of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

3. Provide a written narrative with the Baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:

3.1 The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.

3.2 Use of constraints.

3.3 Use of calendars.

3.4 Estimated number of adverse weather days on a monthly-basis.

3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

4. Submit three copies of the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's. Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; [DOTDTSWMEGASCHEDULERS@dot.wi.gov](mailto:DOTDTSWMEGASCHEDULERS@dot.wi.gov) and [I39project@dot.wi.gov](mailto:I39project@dot.wi.gov).

Within ten business days of receiving the Baseline CPM schedule, the department will schedule a workshop, review the submittal, and return review comments.

Within five business days after the Baseline CPM scheduling workshop, the department will either accept the contractor's Baseline CPM schedule or provide additional comments. Within five business days, address the department's comments and resubmit a revised Baseline CPM, including formal responses to the department's review comments. If the engineer requests justifications for activity durations provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer's acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements.

The department will not consider requests for contract time extensions as specified in standard spec 108.10 or additional compensation for delay specified in standard spec 109.4.7 until the department accepts the Baseline CPM schedule.

#### **108.4.6.3 Monthly CPM Schedule Updates**

Submit CPM Schedule updates on a monthly basis after acceptance of the Baseline CPM Schedule. With each CPM Schedule update, include the following:

1. Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities, through the final acceptance of the project.
2. Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of potential delay, work planned for the next 30 calendar days, and all changes to the CPM Schedule. Changes to the CPM Schedule include the addition or deletion of activities, changes to activity descriptions, original durations, relationships, overlap (lag/lead), constraints, calendars, or previously recorded actual dates. Justify changes to the CPM Schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
4. Submit three copies of each CPM Schedule update, including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's. Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.
5. Within ten business days of receiving each CPM Schedule update, the engineer will provide formal review comments and schedule a meeting, if necessary, to address comments raised in the department's review. Address the department's comments and resubmit a revised CPM Schedule update within five business days after the department's request.

#### **108.4.6.4 Three-Week Look-Ahead Schedules**

Submit Three-Week Look-Ahead Schedules on a weekly basis after NTP. The schedule shall be prepared by computer. Provide three hard copies (11" x 17") to the engineer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Actual as-built dates for completed activities through final acceptance of the project.
3. Planned work for the upcoming three-week period.

4. The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.

5. On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look-Ahead schedules for the month when updating the CPM schedule.

#### **108.4.6.5 Weekly Production Data**

Provide estimated and actual weekly production curves for items of work on a weekly basis for applicable items of work as requested by the department including but not limited to the following:

1. Provide data on the following items by the units specified:

1.1 Underground Facilities – LF per week

1.2 Retaining Walls – SF per week

- MSE Walls
- Other Wall Types

1.3 Bridge Construction

- Foundation Pile – EACH per week
- Foundation/Substructure Concrete – CY per week
- Structural Steel Girders – EACH per week
- Prestressed Concrete Girders – EACH per week
- Deck Formwork – SF per week

1.4 Roadway Excavation – CY per week

1.5 Roadway Embankment – CY per week

1.6 Roadway Structural Section

- Grading/Subgrade Preparation – SY per week
- Base Material Placement – TON per week
- Base Material Subgrade Preparation – SY per week
- Asphaltic Base – TON per week
- Asphaltic and HMA Pavements – TON per week
- Concrete Pavement – SY per week
- Concrete Pavement – CY per week



### 1.7 Finishing Items – SY per week

Note: Base material shall include all breaker run, base aggregate, subbase items or other base items included in the contract. Provide production information for each individual base material item.

2. For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week. Also include cumulative production curves showing the production information for each item to date.
3. Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

#### **108.4.7 Progress Review Meetings**

After completing the weekly submittal of the Three-Week Look-Ahead Schedules and production data, attend a weekly progress review meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

After submitting the monthly update and receiving the engineer's comments, attend a job-site meeting, as scheduled by the engineer, to review the progress of the schedule. At that meeting, address comments as necessary, and document agreement or disagreement with the department. The monthly meeting will be coordinated to take place on the same day and immediately before or after a weekly meeting, whenever possible.

#### **108.4.8 CPM Progress Schedule Revisions**

A CPM Progress Schedule Revision may be submitted, prior to the next CPM Monthly Update, if necessary due to changes in the Work or project conditions as authorized by the engineer. Prepare the CPM Revision in the same format as required for CPM Monthly Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
2. An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
3. The engineer determines that the progress of the work differs significantly from the current schedule.
4. A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

#### **108.4.9 Documentation Required for Time Extension Requests**

To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or deleted and the other activities affected, based on the latest accepted CPM Monthly Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Monthly Update. Requests for time extensions due to delays shall meet the following criteria:

1. For requests to extend the contract completion date, include a detailed description of how the delay, or additional work, affected the project's critical path, based on the latest accepted CPM Monthly Update.
2. For requests to extend an intermediate milestone date, include a description of how the delay, or additional work, affected the controlling (longest) path to the milestone, based on the latest accepted CPM Monthly Update.
3. The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

#### **108.4.10 Measurement for CPM Progress Schedule**

The department will measure Baseline CPM Progress Schedule for each required submittal, acceptably completed.

The department will measure CPM Progress Schedule Updates and Accepted Revisions for each required submittal, acceptably completed.

#### **108.4.11 Payment for CPM Progress Schedule**

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

| ITEM NUMBER  | DESCRIPTION  | UNIT |
|--------------|--|------|
| SPV.0060.001 | Baseline CPM Progress Schedule                       | Each |
| SPV.0060.002 | CPM Progress Schedule Updates and Accepted Revisions | Each |

Payment is full compensation for furnishing all work required under these bid items. The department will pay the contract unit price for the Baseline CPM Progress Schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Progress Schedule update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

Failure to provide satisfactory schedule submittals within the times specified will result in liquidated damages being assessed and may result in the department managing to the contractor's latest accepted schedule until such time as the contractor submits an updated or revised schedule.

If the contractor does not provide satisfactory progress schedule submittals, updates and revisions, within the time specified by these specifications, the department will assess liquidated damages. The department will deduct the amount of \$500 per calendar day due to the contractor for every calendar day that the submission of the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule is delinquent.

If the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule update submittals are not received by the department within 10 business days after the submittal time specified, the department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the schedule is submitted.

### **39. Salvage Terminal High-Tension Cable TL-3, Safence, Item SPV.0060.003; Salvage High-Tension Cable TL-3, Socketed, Safence, Item SPV.0090.003.**

#### **A Description**

This special provision describes salvaging terminals for high-tension cable guard TL-3, Safence, and salvaging high-tension cable guard TL-3, socketed, Safence according to the pertinent provisions of standard spec 204 and as hereinafter provided.

#### **B (Vacant)**

### **C (Construction)**

Remove the cable guard and terminals in a manner that prevents damage to all salvageable materials. Salvageable materials are those materials above grade and not embedded in concrete. Replace materials damaged during salvaging at the cost of the contractor. Separate salvaged components, package, and label. All salvageable materials to become property of Rock County. At least three days prior to delivery, contact Neil Pierce at (608) 295-2614 to coordinate delivery of materials to the Rock County Highway Department, located at 3715 Newville Road, Janesville, WI, 53545.

All components, including footings that are not salvageable are to be removed entirely to a depth of at least 2 feet below subgrade. Dispose of all materials not designated for salvage as specified for disposing of materials under standard spec 203.3.4. Removal and disposal of these components is incidental to the work.

### **D Measurement**

The department will measure Salvage Terminal High-Tension Cable TL- 3, Safence as each individual unit acceptably completed.

The department will measure Salvage High-Tension Cable TL- 3, Socketed, Safence by the linear foot, acceptably completed, measured as the length from end of terminal to end of terminal and rounded to the nearest linear foot.

### **E Payment**

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

| ITEM NUMBER  | DESCRIPTION                                       | UNIT |
|--------------|---|------|
| SPV.0060.003 | Salvage Terminal High-Tension Cable TL-3, Safence | Each |
| SPV.0090.003 | Salvage-Tension Cable TL-3, Socketed, Safence     | LF   |

Payment is full compensation for removing, disassembling, handling, storing, transporting and delivering the materials; disposing and replacing contractor-damaged materials, and for providing all labor, tools, equipment, and incidentals necessary to complete the work.

## **40. Terminal High-Tension Cable TL-3, Gibraltar, Item SPV.0060.004; High-Tension Cable TL-3, Socketed, Gibraltar, Item SPV.0090.001.**

### **A Description**

This special provision describes providing socketed high-tension TL-3 cable guard meeting the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 3. These items are being installed on IH 39 in Rock County as part of Wisconsin Research Study #WI-C17-2007.

## **B Materials**

Furnish Materials are to be acquired from the manufacturer below:

Gibraltar  
320 Southland Road  
Burnet, TX 78611  
Contact: Jay Winn  
Phone: (800) 495-8957 Ext. 212  
(512) 756-1426 (main)  
(512) 756-1575 (fax)  
E-mail: [jwinn@gibraltartx.com](mailto:jwinn@gibraltartx.com)  
Web: [gibraltartx.com](http://gibraltartx.com)

Furnish Grade A, A-FA, A-S, A-T, A-IS, or A-IP concrete conforming to standard spec 501.2 as modified in standard spec 716 for concrete used in concrete socketed line post footing for concrete anchors in terminals. Provide QMP for class II ancillary concrete as specified in standard spec 716.

Furnish steel reinforcement conforming to standard spec 505.

Furnish cable and all cable connection components with a minimum breaking strength of 39,000 lbs per ASTM A741-98.

Furnish zinc-coated hardware as specified in AASHTO M232.

### **B.2 Design Requirements**

Thirty days before installation provide the engineer with two sets of manufacturer prepared design calculations, approval letters, documentation, notes, plan details, and construction specifications. Provide required information in a PDF format or other in electronic format that the department can review information.

Obtain prior approval from the Bureau of Project Development, Erik Emerson at (608) 266-2842, for all hardware substitutions before delivering the hardware on the project.

Provide a system that has been formally accepted by Federal Highway Administration as meeting the crash test requirements in NCHRP Report 350 or MASH, for a Test Level 3 system.

Provide a system to have a maximum deflection of 10 feet. Provide design documentation on how post spacing, radius of curve, direction of curve, and anchor spacing influences barrier deflection.

Provided design details for concrete socketed line post footing with a maximum line post spacing of 15 feet. Minimum depth of for concrete socketed line post is 48 inches for non-rock installations.

Provide concrete anchors with minimum of 60 inches for non-rock installations.

Provide design details for non-rock installations of socketed line post and concrete anchors.

Ensure that concrete line post design has 6 inches of clear cover (distance from outside of concrete in the line post footing to steel sleeve) or manufacture provides documentation that the concrete line post footing will not become cracked or large pieces of concrete cannot fly into the air during a TL-3 truck impact.

Provide engineering analysis sealed by a Wisconsin licensed professional engineer that the line post footings and concrete anchorages are designed for the soils conditions presented in the contract. Analysis includes but is not limited to: design loads used for terminal and anchor posts, foundation design methodology used, factors of safety values, soil type, soil conditions, temperature ranges.

Soils information is located in the plans.

Provide splice and connection details that have passed NCHRP 350 or MASH TL-3 crash testing requirements.

### **C Construction**

A representative of the manufacture is to be on site at all times during the installation of the terminals and the high-tension cable guard. Manufacturer's representative will provide engineer signed documentation that the contractor has installed the socketed high-tension TL-3 cable guard according to manufacturer's recommendations.

Construct concrete as specified in standard spec 501.

Construct steel reinforcement as specified in standard spec 505.

Construct terminal units at each end of a run of cable guard as shown in the plans. The contractor may determine the location of anchors subject to the engineer's approval.

Set steel posts in socketed concrete foundations according to the manufacturer's recommendations. Line post must be easily removed from sleeve, plumb, and hold cables at proper elevations.

Tension the cable according to the manufacturer's recommendations at the time of installation, and then check and adjust approximately three weeks after installation. If system is not maintaining proper tension, adjust tension and return three weeks later.

Provide engineer documentation of date, time, location, tension value, and who checked the tension for each barrier run.

Use only one-half the available adjustment in each turnbuckle or tension adjustment connection to achieve manufacture's recommend tension values.

Field swage connections per manufacturer's recommendations and details.

The engineer will allow the contractor to open the roadway to traffic or remove traffic control devices if concrete attains manufacture's compressive strength. Without compressive strength information, the engineer may allow the contractor to remove traffic control devices 14 equivalent curing days. Equivalent curing days are defined in standard spec 415.3.

#### **D Measurement**

The department will measure Terminal High-Tension Cable TL-3, Gibraltar as each individual unit, acceptably completed.

The department will measure High-Tension Cable TL-3, Socketed, Gibraltar by the linear foot, acceptably completed, measured as the length from end of terminal to end of terminal and rounded to the nearest linear foot.

#### **E Payment**

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

| ITEM NUMBER  | DESCRIPTION                                  | UNIT |
|--------------|--|------|
| SPV.0060.004 | Terminal High-Tension Cable TL-3, Gibraltar  | Each |
| SPV.0090.001 | High-Tension Cable TL-3, Socketed, Gibraltar | LF   |

Payment is full compensation for furnishing and installing all new materials, including posts, paint, concrete, steel reinforcement, sockets, cables, anchors, tension assemblies, fittings, and incidentals; for initial tensioning and subsequent adjustment of tension; for furnishing all excavating and backfilling; for removal of temporary anchors; for restoring of disturbed slope; delineation; engineering; and for properly disposing of excess material.

### **41. Terminal High-Tension Cable TL-3, Safence, Item SPV.0060.005.**

#### **A Description**

Provide socketed high-tension TL-3 cable guard meeting the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 3. These items are being installed on IH 39/90 as part of Wisconsin Research Study #WI-C17-2007.

**B Materials**

Materials are to be acquired from the manufacturer below:

**Safence, Inc.**

Gregory Industries

4100 13th Street SW

Canton Ohio 447100

Contact: Tom Close

Phone: (330) 477-4800 Ext:165

Email: tclose@gregorycorp.com

Web: www.gregorycorp.com

Furnish Grade A concrete according to standard spec 501.

Furnish steel reinforcement according to standard spec 505.

Furnish cable and all cable connection components with a minimum breaking strength of 39,000 lbs per ASTM A741-98.

Furnish zinc-coated hardware as specified in AASHTO M232.

**B.1 Design Requirements**

Thirty days before installation provide the engineer with two sets of manufacturer prepared design calculations, approval letters, documentation, notes, plan details, and construction specifications. Provide required information in a PDF format or other in electronic format that the department can review information.

Obtain prior approval from the Bureau of Project Development, Erik Emerson at (608) 266-2842, for all hardware substitutions before delivering the hardware on the project.

Provide a system that has been formally accepted by Federal Highway Administration as meeting the crash test requirements in NCHRP Report 350, for a Test Level 3 system.

Provide a system to have a maximum deflection of 15 feet. Provide design documentation on how post spacing and radius of curve influences barrier deflection.

Provided design details for concrete socketed line post footing with a maximum line post spacing of 15 feet. Minimum depth of for concrete socketed line post is 48 inches for non-rock installations.

Provide concrete anchors with minimum of 60 inches for non-rock installations

Provide design details for non-rock installations of socketed line post and concrete anchors.



Specify the required 28-day concrete compressive strength values for socketed concrete line post and anchor footings.

Ensure that concrete line post design has 6 inches of clear cover (distance from outside of concrete in the line post footing to steel sleeve) or manufacture provides documentation that the concrete line post footing will not become cracked or large pieces of concrete cannot fly into the air during a TL-3 truck impact.

Provide engineering analysis sealed by a Wisconsin licensed professional engineer that the line post footings and concrete anchorages are designed for the soils conditions presented in the contract. Analysis includes but is not limited to: design loads used for terminal and anchor posts, foundation design methodology used, factors of safety values, soil type, soil conditions, temperature ranges

Soils boring information is located in the plan sheet.

### **C Construction**

A representative of the manufacture is to be on site at all times during the installation of the terminals and the high-tension cable guard. Manufacturer's representative will provide engineer signed documentation that the contractor has installed the socketed high-tension TL-3 cable guard according to manufacturer's recommendations.

Construct concrete according to standard spec 501.

Construct steel reinforcement according to standard spec 505.

Construct terminal units at each end of a run of cable guard as shown in the plans. The contractor may determine the location of anchors subject to the engineer's approval.

Set steel posts in socketed concrete foundations according to the manufacturer's recommendations. Line post must be easily removed from sleeve, plumb, and hold cables at proper elevations.

Tension the cable according to the manufacturer's recommendations at the time of installation, and then check and adjust approximately three weeks after installation. If system is not maintaining proper tension, adjust tension and return three weeks later. Provide engineer documentation of date, time, location, tension value, and who checked the tension for each barrier run.

Use only one-half the available adjustment in each turnbuckle or tension adjustment connection to achieve manufacture's recommend tension values.

The engineer will allow the contractor to open the roadway to traffic or remove traffic control devices if concrete attains manufacture's compressive strength. Without compressive strength information, the engineer may allow the contractor to remove traffic

control devices 14 equivalent curing days. Equivalent curing days are defined in standard spec. 415.3

Install reflective delineators at even post spacing intervals close to 100 feet.

**D Measurement**

The department will measure Terminal High-Tension Cable TL-3, Safence as each individual unit, acceptably completed.

**E Payment**

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

| ITEM NUMBER  | DESCRIPTION                               | UNIT |
|--------------|---|------|
| SPV.0060.005 | Terminal High-Tension Cable TL-3, Safence | Each |

Payment is full compensation for furnishing all materials, including posts, paint, concrete, steel reinforcement, sockets, cables, anchors, tension assemblies, fittings, and incidentals; for initial tensioning and subsequent adjustment of tension; for furnishing all excavating and backfilling; for removal of temporary anchors; for restoring of disturbed slope; delineation; engineering; and for properly disposing of excess material.

**42. Removing HMA Pavement Safety Wedge Longitudinal Joint Milling, Item SPV.0090.002.**

**A Description**

This special provision describes removing the longitudinal safety wedge prior to the HMA paving of the upper layer of the adjacent lane in order to create a vertical longitudinal joint.

**B (Vacant)**

**C Construction**

Remove the longitudinal safety wedge constructed according to the standard spec 450.3.2.8 prior to paving the adjacent lane. Provide a uniform milled surface that is reasonably plane, free of excessively large scarification marks, and has the grade and transverse slope the plans show or the engineer directs. Do not damage the remaining pavement.

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

**D Measurement**

The department will measure Removing HMA Pavement Safety Wedge Longitudinal Joint Milling by the linear foot, acceptably completed.

### **E Payment**

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

| ITEM NUMBER  | DESCRIPTION   | UNIT |
|--------------|---|------|
| SPV.0090.002 | Removing HMA Pavement Safety Wedge Longitudinal Joint Milling | LF   |

Payment is full compensation for removing HMA pavement; and for hauling and disposal of materials.

## **43. Traffic Control Gawk Screen Furnished, Item SPV.0090.201; and Traffic Control Gawk Screen Installed, Item SPV.0090.202.**

### **A Description**

This special provision describes furnishing and installing traffic control gawk screen on concrete barrier as a traffic control device and removal upon completion of the project.

### **B Materials**

Furnish rectangular shaped screen for temporary mounting on top of concrete barrier.

Furnish a polymer, polyethylene, or UV protected thermoplastic, or similar lightweight product that will not shatter when impacted and is proven crashworthy.

Submit shop drawings a minimum of two weeks prior to the proposed use of Traffic Control Gawk Screen.

#### **Requirements:**

- 24-inches in height;
- The same length as the concrete barrier on which it will be mounted, without splicing, except account for longitudinal overhang between the concrete barrier as shown in the plans;
- Mounted with two poles, at the spacing shown in the plan, attached to the mounting plate with the mounting plate drilled into the top of the concrete barrier;
- Secured with a chain and pin, or other approved method, to the mounting pole;
- Capable of being securely connected to the adjacent screen section using polyethylene brackets, or similar approved fasteners, made of non-metallic materials;
- Capable of expanding without buckling;
- Capable of contracting without creating gaps in the screening and while remaining securely fastened to the adjacent screen;
- Gray in color and opaque;
- Has finished faces on both sides of the screen;
- Capable of remaining in place from traffic gusts, wind gusts, and other outdoor elements that may move or displace the screen.

Furnish and install mounting pipe and hardware according to manufacturer's/ suppliers directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

### **C Construction**

Furnish and deliver traffic control screen to worksites within the project. Install the screen according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as directed by the engineer at no additional cost. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer, at no additional cost.

Remove screen when no longer needed at the installation site, during winter when directed by the engineer, and upon project completion. In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department's approved products list. Fill holes as the screen is removed.

### **D Measurement**

The department will measure Traffic Control Gawk Screen Delivered by the linear foot, acceptably delivered to the project site.

The department will measure Traffic Control Gawk Screen Installed by the linear foot, acceptably completed, along the base of the screen for each contract-identified or engineer-directed initial installation. The department will also measure subsequent contract-identified or engineer-directed reinstallations. The department will not measure installations made solely to accommodate the contractor's means and methods or to accommodate winter shutdowns or winter work not in the plans. Moving the screen from one barrier to another, removing and reinstalling the screen on the same barrier, or moving to storage and then moving to a barrier are included in the initial installation and will not be measured separately for payment.

### **E Payment**

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

| ITEM NUMBER  | DESCRIPTION                           | UNIT |
|--------------|---------------------------------------|------|
| SPV.0090.201 | Traffic Control Gawk Screen Delivered | LF   |
| SPV.0090.202 | Traffic Control Gawk Screen Installed | LF   |

Payment for Traffic Control Gawk Screen Delivered is full compensation for furnishing traffic control screen, mounting posts, and mounting and fastening hardware; initial delivery; and storage until installation.

Payment for Traffic Control Gawk Screen Installed is full compensation for each installation; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

**44. Survey Project 1003-10-88, Item SPV.0105.001; 1005-10-84, Item SPV.0105.002.**

**A Description**

Standard spec 105.6 and standard spec 650 are modified to define the requirements for construction staking for this contract.

*Add the following to standard spec 105.6.1:*

Horizontal and vertical control points, provided by the department, are generally at 1-mile intervals for horizontal control and at 1/2-mile intervals for vertical control. Control points will be provided in a hard copy and ASCII electronic format.

*Replace standard spec 105.6.2 with the following:*

The department will not perform any construction staking for this contract. The contractor shall perform all survey required to layout and construct the work under this contract, subject to engineer's approval.

The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, pipe culverts, structure layout, pavement, barriers (temporary and permanent), electrical installations, supplemental control, slope stakes, ponds, ITS, FTMS, ramp gates, parking lots, utilities, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

The department may choose to perform quality assurance survey during construction. This quality assurance survey does not relieve the contractor of the responsibility for furnishing all survey work required under this contract.

*Delete standard spec 650.1.*

**B (Vacant)**

**C Construction**

Survey required under this item shall be according to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and construct all work under this contract.

**D Measurement**

The department will measure Survey Project (Project Number) as each single lump sum unit of 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.0105.001 | Survey Project 1003-10-88 | LS   |
| SPV.0105.002 | Survey Project 1005-10-84 | LS   |

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

## **ADDITIONAL SPECIAL PROVISION 4**

### **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 may also withhold routine 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.

### **Release of Routine Retainage**

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

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.

## ADDITIONAL SPECIAL PROVISION 6

### ASP 6 - Modifications to the standard specifications

*Make the following revisions to the standard specifications:*

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#### 550.5.2 Piling

*Add the following as paragraph three effective with the December 2015 letting:*

- (3) The department will not entertain a change order request for a differing site condition under 104.2.2.2 or for a quantity change under 104.2.2.4.3 for the Piling bid items. Instead the department will adjust pay under the Piling Quantity Variation administrative item if the total driven length of each size is less than 85 percent of, or more than 115 percent of the contract quantity as follows:
- | Percent of Contract Length Driven | Pay Adjustment   |
|-----------------------------------|--|
| < 85                              | ( 85% contract length - driven length ) x 20% unit price |
| > 115                             | (driven length - 115% contract length) x 5% unit price   |
- 

#### 643.2.1 General

*Replace paragraph two with the following effective with the December 2015 letting:*

- (2) Use reflective sheeting from the department's approved products list on barricades, drums, and flexible tubular marker posts.

## Errata

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*Make the following corrections to the standard specifications:*

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#### 641.2.9 Overhead Sign Supports

*Correct errata adding back accidentally deleted paragraphs one through three.*

- (1) Provide commercially fabricated overhead sign supports conforming to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years with a wind importance factor of 1.00. Design to withstand a 3 second gust wind speed of 90 mph. Do not use the methods of appendix C of those AASHTO standards.
- (2) Design structures, listed as applicable structure types in the AASHTO standards, to the fatigue category criteria as follows:
  1. Structures carrying variable message signs:
    - Category I criteria for structures over all roadway types.
  2. Structures carrying type II or III signs:
    - Category I criteria for structures used over highways and free flow ramps.
    - Category II criteria for structures with arms greater than 30 feet used over local roads and city streets.
    - Category III criteria for structures with arms 30 feet or less used over local roads and city streets.
- (3) Use the posted speed limit of the roadway beneath the structure for truck-induced gusts.
- (4) Submit shop drawings identified by structure number, design computations, and material specifications, to the engineer before erecting sign supports. Provide tightening procedures for mast arm or luminaire arm to pole shaft connections on the shop drawings. Have a professional engineer registered in the state of Wisconsin sign, seal, and date the shop drawings and certify that the design conforms to AASHTO standards and the contract.
- (5) Provide steel pole shafts and mast arms zinc coated according to ASTM A123. Provide tapered pole and arm shafts with a minimum taper of 0.14 inch per foot for single-member vertical and single-member horizontal structure components. Provide bolts and other hardware conforming to 641.2.2.



**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. 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).
  6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- B. Costs for conforming to this special provision are incidental to the contract.



## **ADDITIONAL SPECIAL PROVISION 9**

### **Electronic Certified Payroll Submittal**

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls 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 payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 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 data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

<http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

**Effective August 2015 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.

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

Upon completion of the project certify to the engineer, in writing using department form WS4567, 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 WS4567 is available at:

<http://wisconsindot.gov/rdwy/worksheets/ws4567.doc>

**Effective with September 2004 Letting**

**WISCONSIN DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES**

**SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS**

- I. Wage Rates, Hours of labor and payment of Wages
- II. Payroll Requirements
- III. Postings at the Site of the Work
- IV. Affidavits
- V. Wage Rate Redistribution
- VI. Additional Classifications

**I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES**

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contracts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

## **II. PAYROLL REQUIREMENTS**

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

## **III. POSTINGS AT THE SITE OF THE WORK**

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

- a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.
- b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)
- c. A copy of the contractor's Equal Employment Opportunity Policy.
- d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

## **IV. WAGE RATE REDISTRIBUTION**

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

## **V. ADDITIONAL CLASSIFICATIONS**

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.
2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.
3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.
4. The unlisted classification must be commonly employed in the area where the project is located.
5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.
6. The request should be made prior to the actual performance of the work by the unlisted classification.
7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.
8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).



**ANNUAL PREVAILING WAGE RATE DETERMINATION  
FOR ALL STATE HIGHWAY PROJECTS  
ROCK COUNTY**

Compiled by the State of Wisconsin - Department of Workforce Development  
for the Department of Transportation  
Pursuant to s. 103.50, Stats.  
Issued on May 1, 2015

**CLASSIFICATION:** Contractors are required to call the Department of Workforce Development if there are any questions regarding the proper trade or classification to be used for any worker on a public works project.

**OVERTIME:** Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

**FUTURE INCREASE:** If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

**PREMIUM PAY:** If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

**SUBJOURNEY:** Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

| <u>TRADE OR OCCUPATION</u>   | <u>HOURLY<br/>BASIC RATE<br/>OF PAY</u> | <u>HOURLY<br/>FRINGE<br/>BENEFITS</u> | <u>TOTAL</u> |
|--|---|---------------------------------------|--------------|
|  | \$                                      | \$                                    | \$           |
| Bricklayer, Blocklayer or Stonemason   | 32.14                                   | 17.99                                 | 50.13        |
| Carpenter  | 32.72                                   | 16.00                                 | 48.72        |
| Future Increase(s): Add \$1.42/hr on 6/1/2015; Add \$1.42/hr on 6/1/2016.<br>Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.   |   |                                       |              |
| Cement Finisher  | 35.18                                   | 16.78                                 | 51.96        |
| Future Increase(s): Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16.<br>Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise. |   |                                       |              |
| Electrician  | 33.93                                   | 22.77                                 | 56.70        |
| Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.  |   |                                       |              |
| Fence Erector  | 23.73                                   | 4.79                                  | 28.52        |
| Ironworker   | 36.29                                   | 31.83                                 | 68.12        |
| Future Increase(s): Add \$2.10/hr on 6/1/15; Add \$2.30/hr on 6/1/16<br>Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.  |   |                                       |              |
| Line Constructor (Electrical)  | 39.50                                   | 19.15                                 | 58.65        |
| Painter  | 26.65                                   | 13.10                                 | 39.75        |
| Pavement Marking Operator  | 29.22                                   | 24.68                                 | 53.90        |
| Piledriver   | 33.24                                   | 16.00                                 | 49.24        |
| Future Increase(s): Add \$1.44/hr on 6/1/2015; Add \$1.44/hr on 6/1/2016.<br>Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.   |   |                                       |              |

| <b>TRADE OR OCCUPATION</b>                                   | <b>HOURLY<br/>BASIC RATE<br/>OF PAY</b> | <b>HOURLY<br/>FRINGE<br/>BENEFITS</b> | <b>TOTAL</b> |
|--|---|---------------------------------------|--------------|
|  | <b>\$</b>                               | <b>\$</b>                             | <b>\$</b>    |
| Roofer or Waterproofer                                       | 39.20                                   | 14.67                                 | 53.87        |
| Teledata Technician or Installer                             | 22.25                                   | 12.33                                 | 34.58        |
| Tuckpointer, Caulker or Cleaner                              | 23.60                                   | 7.10                                  | 30.70        |
| Underwater Diver (Except on Great Lakes)                     | 35.40                                   | 15.90                                 | 51.30        |
| Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY | 35.55                                   | 15.57                                 | 51.12        |
| Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY  | 31.60                                   | 15.43                                 | 47.03        |
| Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY       | 27.65                                   | 13.44                                 | 41.09        |
| Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY       | 25.68                                   | 12.83                                 | 38.51        |
| Groundman - ELECTRICAL LINE CONSTRUCTION ONLY                | 21.75                                   | 12.97                                 | 34.72        |

**TRUCK DRIVERS**

|  |       |       |       |
|--|-------|-------|-------|
| Single Axle or Two Axle  | 25.18 | 18.31 | 43.49 |
| Future Increase(s): Add \$1.15/hr on 6/1/2015.<br>Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.  |       |       |       |
| Three or More Axle   | 25.28 | 18.31 | 43.59 |
| Future Increase(s): Add \$1.15/hr on 6/1/2015.<br>Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.  |       |       |       |
| Articulated, Euclid, Dumptor, Off Road Material Hauler   | 30.27 | 21.15 | 51.42 |
| Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.<br>Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.<br>See DOT'S website for details about the applicability of this night work premium at: <a href="http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm">http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm</a> . |       |       |       |
| Pavement Marking Vehicle   | 23.16 | 17.13 | 40.29 |
| Shadow or Pilot Vehicle  | 24.37 | 17.77 | 42.14 |
| Truck Mechanic   | 24.52 | 17.77 | 42.29 |

**LABORERS**

|  |       |       |       |
|--|-------|-------|-------|
| General Laborer  | 30.13 | 15.14 | 45.27 |
| Future Increase(s): Add \$1.05/hr eff. 06/01/2015; Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017<br>Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer.<br>DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period). |       |       |       |
| Asbestos Abatement Worker  | 22.05 | 17.61 | 39.66 |
| Landscaper   | 30.13 | 15.14 | 45.27 |
| Future Increase(s): Add \$1.05/hr eff. 06/01/2015; Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017<br>Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination  |       |       |       |

| <b>TRADE OR OCCUPATION</b>  | <b>HOURLY<br/>BASIC RATE<br/>OF PAY</b> | <b>HOURLY<br/>FRINGE<br/>BENEFITS</b> | <b>TOTAL</b> |
|---|---|---------------------------------------|--------------|
|   | <b>\$</b>                               | <b>\$</b>                             | <b>\$</b>    |
| conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).   |   |                                       |              |
| Flagperson or Traffic Control Person  | 26.76                                   | 15.14                                 | 41.90        |
| Future Increase(s): Add \$1.05/hr eff. 06/01/2015; Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017   |   |                                       |              |
| Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise. |   |                                       |              |
| Fiber Optic Laborer (Outside, Other Than Concrete Encased)  | 18.33                                   | 13.65                                 | 31.98        |
| Railroad Track Laborer  | 14.50                                   | 3.93                                  | 18.43        |

### HEAVY EQUIPMENT OPERATORS

|   |       |       |       |
|---|-------|-------|-------|
| Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type).  | 37.72 | 21.15 | 58.87 |
| Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.  |       |       |       |
| Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm">http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm</a> .   |       |       |       |
| Backhoe (Track Type) Having a Mfr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.   | 37.22 | 21.15 | 58.37 |
| Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.  |       |       |       |
| Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm">http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm</a> .   |       |       |       |
| Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub | 36.72 | 21.15 | 57.87 |

| <u>TRADE OR OCCUPATION</u>   | <u>HOURLY<br/>BASIC RATE<br/>OF PAY</u> | <u>HOURLY<br/>FRINGE<br/>BENEFITS</u> | <u>TOTAL</u> |
|--|---|---------------------------------------|--------------|
|  | \$                                      | \$                                    | \$           |
| Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames.<br>Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.<br>Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.<br>See DOT'S website for details about the applicability of this night work premium at: <a href="http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm">http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm</a> .  |   |                                       |              |
| Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.<br>Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.<br>Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.<br>See DOT'S website for details about the applicability of this night work premium at: <a href="http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm">http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm</a> . | 36.46                                   | 21.15                                 | 57.61        |
| Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.<br>Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.<br>Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.<br>See DOT'S website for details about the applicability of this night work premium at: <a href="http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm">http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm</a> .   | 36.17                                   | 21.15                                 | 57.32        |
| Fiber Optic Cable Equipment.   | 28.89                                   | 17.95                                 | 46.84        |

## Wisconsin Department of Transportation

PAGE: 1

DATE: 11/30/15

REVISED:

## SCHEDULE OF ITEMS

CONTRACT:  
20160209002PROJECT(S):  
1003-10-88  
1005-10-84FEDERAL ID(S):  
N/A  
N/A

CONTRACTOR : \_\_\_\_\_

| LINE<br>NO | ITEM<br>DESCRIPTION | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|---------------------|----------------------------------|------------|-----|------------|-----|
|            |                     |                                  | DOLLARS    | CTS | DOLLARS    | CTS |

## SECTION 0001 Contract Items

|      |   |           |      |  |   |   |
|------|---|-----------|------|--|---|---|
| 0010 | 201.0105 Clearing   | 6.000     |      |  |   |   |
|      | STA   |           | .    |  | . |   |
| 0020 | 201.0205 Grubbing   | 6.000     |      |  |   |   |
|      | STA   |           | .    |  | . |   |
| 0030 | 203.0100 Removing Small<br>Pipe Culverts                            | 3.000     |      |  |   |   |
|      | EACH  |           | .    |  | . |   |
| 0040 | 203.0200 Removing Old<br>Structure (station) 001.<br>1284+00 'TWNB' | LUMP      | LUMP |  |   | . |
| 0050 | 203.0225.S Debris<br>Containment (structure)<br>001. B-53-73        | LUMP      | LUMP |  |   | . |
| 0060 | 204.0100 Removing<br>Pavement                                       | 6,075.000 |      |  |   |   |
|      | SY  |           | .    |  | . |   |
| 0070 | 204.0120 Removing<br>Asphaltic Surface<br>Milling                   | 1,650.000 |      |  |   |   |
|      | SY  |           | .    |  | . |   |
| 0080 | 204.0165 Removing<br>Guardrail                                      | 1,163.000 |      |  |   |   |
|      | LF  |           | .    |  | . |   |
| 0090 | 204.0170 Removing Fence   | 65.000    |      |  |   |   |
|      | LF  |           | .    |  | . |   |
| 0100 | 204.0180 Removing<br>Delineators and Markers                        | 8.000     |      |  |   |   |
|      | EACH  |           | .    |  | . |   |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160209002PROJECT(S):  
1003-10-88  
1005-10-84FEDERAL ID(S):  
N/A  
N/A

CONTRACTOR : \_\_\_\_\_

| LINE<br>NO | ITEM<br>DESCRIPTION  | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |      | BID AMOUNT |     |
|------------|--|----------------------------------|------------|------|------------|-----|
|            |  |                                  | DOLLARS    | CTS  | DOLLARS    | CTS |
| 0110       | 204.0220 Removing Inlets   | 3.000                            |            |      |            |     |
|            | EACH   |                                  | .          |      | .          |     |
| 0120       | 204.0245 Removing Storm<br>Sewer (size) 001.<br>24-Inch                      | 10.000                           |            |      |            |     |
|            | LF   |                                  | .          |      | .          |     |
| 0130       | 205.0100 Excavation<br>Common  | 15,244.000                       |            |      |            |     |
|            | CY   |                                  | .          |      | .          |     |
| 0140       | 206.1000 Excavation for<br>Structures Bridges<br>(structure) 001.<br>B-53-73 |                                  | LUMP       | LUMP |            | .   |
| 0150       | 208.1100 Select Borrow   | 6,752.000                        |            |      |            |     |
|            | CY   |                                  | .          |      | .          |     |
| 0160       | 210.0100 Backfill<br>Structure **p**   | 134.000                          |            |      |            |     |
|            | CY   |                                  | .          |      | .          |     |
| 0170       | 213.0100 Finishing<br>Roadway (project) 001.<br>1003-10-88                   | 1.000                            |            |      |            |     |
|            | EACH   |                                  | .          |      | .          |     |
| 0180       | 213.0100 Finishing<br>Roadway (project) 002.<br>1005-10-84                   | 1.000                            |            |      |            |     |
|            | EACH   |                                  | .          |      | .          |     |
| 0190       | 305.0110 Base Aggregate<br>Dense 3/4-Inch                                    | 1,055.000                        |            |      |            |     |
|            | TON  |                                  | .          |      | .          |     |
| 0200       | 305.0120 Base Aggregate<br>Dense 1 1/4-Inch                                  | 24,595.000                       |            |      |            |     |
|            | TON  |                                  | .          |      | .          |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160209002PROJECT(S):  
1003-10-88  
1005-10-84FEDERAL ID(S):  
N/A  
N/A

CONTRACTOR : \_\_\_\_\_

| LINE<br>NO | ITEM<br>DESCRIPTION                               | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0210       | 305.0500 Shaping<br>Shoulders                     | 5.000<br>STA                     | .          |     | .          |     |
| 0220       | 415.0090 Concrete<br>Pavement 9-Inch **p**        | 5.000<br>SY                      | .          |     | .          |     |
| 0230       | 415.0410 Concrete<br>Pavement Approach Slab       | 125.000<br>SY                    | .          |     | .          |     |
| 0240       | 416.0610 Drilled Tie<br>Bars                      | 30.000<br>EACH                   | .          |     | .          |     |
| 0250       | 416.1725 Concrete<br>Pavement Replacement<br>SHES | 100.000<br>SY                    | .          |     | .          |     |
| 0260       | 455.0105 Asphaltic<br>Material PG58-28            | 265.000<br>TON                   | .          |     | .          |     |
| 0270       | 455.0120 Asphaltic<br>Material PG64-28            | 148.000<br>TON                   | .          |     | .          |     |
| 0280       | 455.0605 Tack Coat                                | 1,220.000<br>GAL                 | .          |     | .          |     |
| 0290       | 460.1110 HMA Pavement<br>Type E-10                | 190.000<br>TON                   | .          |     | .          |     |
| 0300       | 460.1130 HMA Pavement<br>Type E-30                | 7,184.000<br>TON                 | .          |     | .          |     |
| 0310       | 460.2000 Incentive<br>Density HMA Pavement        | 4,570.000<br>DOL                 | 1.00000    |     | 4570.00    |     |

## SCHEDULE OF ITEMS

REVISED:

CONTRACT:  
20160209002PROJECT(S):  
1003-10-88  
1005-10-84FEDERAL ID(S):  
N/A  
N/A

CONTRACTOR : \_\_\_\_\_

| LINE<br>NO | ITEM<br>DESCRIPTION   | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0320       | 465.0310 Asphaltic Curb   | 10.000                           |            |     |            |     |
|            |   | LF                               | .          |     | .          |     |
| 0330       | 502.0100 Concrete<br>Masonry Bridges **p**                        | 315.000                          |            |     |            |     |
|            |   | CY                               | .          |     | .          |     |
| 0340       | 502.3200 Protective<br>Surface Treatment                          | 28.000                           |            |     |            |     |
|            |   | SY                               | .          |     | .          |     |
| 0350       | 502.3210 Pigmented<br>Surface Sealer                              | 4.000                            |            |     |            |     |
|            |   | SY                               | .          |     | .          |     |
| 0360       | 502.6102 Masonry Anchors<br>Type S 1/2-Inch **p**                 | 10.000                           |            |     |            |     |
|            |   | EACH                             | .          |     | .          |     |
| 0370       | 503.0128 Prestressed<br>Girder Type I 28-Inch<br>**p**            | 458.000                          |            |     |            |     |
|            |   | LF                               | .          |     | .          |     |
| 0380       | 505.0400 Bar Steel<br>Reinforcement HS<br>Structures **p**        | 6,670.000                        |            |     |            |     |
|            |   | LB                               | .          |     | .          |     |
| 0390       | 505.0600 Bar Steel<br>Reinforcement HS Coated<br>Structures **p** | 47,465.000                       |            |     |            |     |
|            |   | LB                               | .          |     | .          |     |
| 0400       | 505.0905 Bar Couplers No.<br>5 **p**                              | 14.000                           |            |     |            |     |
|            |   | EACH                             | .          |     | .          |     |
| 0410       | 506.2605 Bearing Pads<br>Elastomeric<br>Non-Laminated **p**       | 18.000                           |            |     |            |     |
|            |   | EACH                             | .          |     | .          |     |



## SCHEDULE OF ITEMS

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20160209002PROJECT(S):  
1003-10-88  
1005-10-84FEDERAL ID(S):  
N/A  
N/A

CONTRACTOR : \_\_\_\_\_

| LINE<br>NO | ITEM<br>DESCRIPTION   | APPROX.<br>QUANTITY<br>AND UNITS | UNIT PRICE |     | BID AMOUNT |     |
|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0420       | 506.4000 Steel<br>Diaphragms (structure)<br>001. B-53-73 **p**  | 6.000<br>EACH                    | .          |     | .          |     |
| 0430       | 509.1000 Joint Repair   | 29.000<br>SY                     | .          |     | .          |     |
| 0440       | 509.3500.S HMA Overlay<br>Polymer-Modified                      | 43.000<br>TON                    | .          |     | .          |     |
| 0450       | 511.1200 Temporary<br>Shoring (structure) 001.<br>B-53-73 **p** | 933.000<br>SF                    | .          |     | .          |     |
| 0460       | 516.0500 Rubberized<br>Membrane Waterproofing<br>**p**          | 18.000<br>SY                     | .          |     | .          |     |
| 0470       | 520.8000 Concrete<br>Collars for Pipe                           | 5.000<br>EACH                    | .          |     | .          |     |
| 0480       | 521.0118 Culvert Pipe<br>Corrugated Steel 18-Inch               | 14.000<br>LF                     | .          |     | .          |     |
| 0490       | 521.0124 Culvert Pipe<br>Corrugated Steel 24-Inch               | 26.000<br>LF                     | .          |     | .          |     |
| 0500       | 521.1018 Apron Endwalls<br>for Culvert Pipe Steel<br>18-Inch    | 1.000<br>EACH                    | .          |     | .          |     |
| 0510       | 521.1024 Apron Endwalls<br>for Culvert Pipe Steel<br>24-Inch    | 1.000<br>EACH                    | .          |     | .          |     |
| 0520       | 550.0010 Pre-Boring<br>Unconsolidated Materials                 | 115.000<br>LF                    | .          |     | .          |     |

## Wisconsin Department of Transportation

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|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0530       | 550.2126 Piling CIP<br>Concrete 12 3/4 X 0.<br>375-Inch     | 2,875.000<br>LF                  | .          |     | .          |     |
| 0540       | 603.8000 Concrete<br>Barrier Temporary<br>Precast Delivered | 1,374.000<br>LF                  | .          |     | .          |     |
| 0550       | 603.8125 Concrete<br>Barrier Temporary<br>Precast Installed | 2,174.000<br>LF                  | .          |     | .          |     |
| 0560       | 604.0500 Slope Paving<br>Crushed Aggregate **p**            | 271.000<br>SY                    | .          |     | .          |     |
| 0570       | 606.0200 Riprap Medium                                      | 20.000<br>CY                     | .          |     | .          |     |
| 0580       | 611.0642 Inlet Covers<br>Type MS                            | 3.000<br>EACH                    | .          |     | .          |     |
| 0590       | 611.0654 Inlet Covers<br>Type V                             | 1.000<br>EACH                    | .          |     | .          |     |
| 0600       | 611.3220 Inlets 2x2-FT                                      | 1.000<br>EACH                    | .          |     | .          |     |
| 0610       | 611.3901 Inlets Median 1<br>Grate                           | 1.000<br>EACH                    | .          |     | .          |     |
| 0620       | 611.3902 Inlets Median 2<br>Grate                           | 1.000<br>EACH                    | .          |     | .          |     |
| 0630       | 612.0406 Pipe Underdrain<br>Wrapped 6-Inch **p**            | 115.000<br>LF                    | .          |     | .          |     |

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|------------|--|----------------------------------|------------|-----|------------|-----|
|            |  |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0640       | 614.0150 Anchor<br>Assemblies for Steel<br>Plate Beam Guard                      | 5.000<br>EACH                    | .          |     | .          |     |
| 0650       | 614.0905 Crash Cushions<br>Temporary   | 5.000<br>EACH                    | .          |     | .          |     |
| 0660       | 614.2300 MGS Guardrail 3   | 1,275.000<br>LF                  | .          |     | .          |     |
| 0670       | 614.2500 MGS Thrie Beam<br>Transition  | 197.000<br>LF                    | .          |     | .          |     |
| 0680       | 614.2610 MGS Guardrail<br>Terminal EAT   | 5.000<br>EACH                    | .          |     | .          |     |
| 0690       | 614.2620 MGS Guardrail<br>Terminal Type 2  | 1.000<br>EACH                    | .          |     | .          |     |
| 0700       | 616.0100 Fence Woven<br>Wire (height) 001. 4-FT<br>***p**                        | 75.000<br>LF                     | .          |     | .          |     |
| 0710       | 618.0100 Maintenance And<br>Repair of Haul Roads<br>(project) 001.<br>1003-10-88 | 1.000<br>EACH                    | .          |     | .          |     |
| 0720       | 618.0100 Maintenance And<br>Repair of Haul Roads<br>(project) 002.<br>1005-10-84 | 1.000<br>EACH                    | .          |     | .          |     |
| 0730       | 619.1000 Mobilization  | 1.000<br>EACH                    | .          |     | .          |     |

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|------------|--|----------------------------------|------------|-----|------------|-----|
|            |  |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0740       | 624.0100 Water   | 670.000<br>MGAL                  | .          |     | .          |     |
| 0750       | 625.0500 Salvaged<br>Topsoil ***                       | 16,391.000<br>SY                 | .          |     | .          |     |
| 0760       | 627.0200 Mulching                                      | 12,791.000<br>SY                 | .          |     | .          |     |
| 0770       | 628.1504 Silt Fence                                    | 3,950.000<br>LF                  | .          |     | .          |     |
| 0780       | 628.1520 Silt Fence<br>Maintenance                     | 3,360.000<br>LF                  | .          |     | .          |     |
| 0790       | 628.1905 Mobilizations<br>Erosion Control              | 10.000<br>EACH                   | .          |     | .          |     |
| 0800       | 628.1910 Mobilizations<br>Emergency Erosion<br>Control | 7.000<br>EACH                    | .          |     | .          |     |
| 0810       | 628.2004 Erosion Mat<br>Class I Type B                 | 14,940.000<br>SY                 | .          |     | .          |     |
| 0820       | 628.6510 Soil Stabilizer<br>Type B                     | 2.000<br>ACRE                    | .          |     | .          |     |
| 0830       | 628.7005 Inlet<br>Protection Type A                    | 2.000<br>EACH                    | .          |     | .          |     |
| 0840       | 628.7010 Inlet<br>Protection Type B                    | 5.000<br>EACH                    | .          |     | .          |     |

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|------------|------------------------------------|----------------------------------|------------|-----|------------|-----|
|            |                                    |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0850       | 628.7504 Temporary Ditch<br>Checks | 125.000<br>LF                    | .          |     | .          |     |
| 0860       | 628.7555 Culvert Pipe<br>Checks    | 20.000<br>EACH                   | .          |     | .          |     |
| 0870       | 628.7560 Tracking Pads             | 4.000<br>EACH                    | .          |     | .          |     |
| 0880       | 629.0205 Fertilizer Type<br>A      | 17.000<br>CWT                    | .          |     | .          |     |
| 0890       | 630.0120 Seeding Mixture<br>No. 20 | 170.000<br>LB                    | .          |     | .          |     |
| 0900       | 630.0130 Seeding Mixture<br>No. 30 | 321.000<br>LB                    | .          |     | .          |     |
| 0910       | 630.0200 Seeding<br>Temporary      | 390.000<br>LB                    | .          |     | .          |     |
| 0920       | 630.0300 Seeding Borrow<br>Pit     | 50.000<br>LB                     | .          |     | .          |     |
| 0930       | 633.0100 Delineator<br>Posts Steel | 11.000<br>EACH                   | .          |     | .          |     |
| 0940       | 633.0500 Delineator<br>Reflectors  | 11.000<br>EACH                   | .          |     | .          |     |
| 0950       | 633.5200 Markers Culvert<br>End    | 3.000<br>EACH                    | .          |     | .          |     |

## Wisconsin Department of Transportation

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|------------|--|----------------------------------|------------|-----|------------|-----|
|            |  |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 0960       | 638.2102 Moving Signs<br>Type II   | 10.000<br>EACH                   | .          |     | .          |     |
| 0970       | 638.4000 Moving Small<br>Sign Supports   | 8.000<br>EACH                    | .          |     | .          |     |
| 0980       | 642.5201 Field Office<br>Type C  | 1.000<br>EACH                    | .          |     | .          |     |
| 0990       | 643.0200 Traffic Control<br>Surveillance and<br>Maintenance (project)<br>001. 1003-10-88 | 80.000<br>DAY                    | .          |     | .          |     |
| 1000       | 643.0200 Traffic Control<br>Surveillance and<br>Maintenance (project)<br>002. 1005-10-84 | 109.000<br>DAY                   | .          |     | .          |     |
| 1010       | 643.0300 Traffic Control<br>Drums  | 25,767.000<br>DAY                | .          |     | .          |     |
| 1020       | 643.0420 Traffic Control<br>Barricades Type III  | 586.000<br>DAY                   | .          |     | .          |     |
| 1030       | 643.0705 Traffic Control<br>Warning Lights Type A  | 950.000<br>DAY                   | .          |     | .          |     |
| 1040       | 643.0715 Traffic Control<br>Warning Lights Type C  | 11,677.000<br>DAY                | .          |     | .          |     |
| 1050       | 643.0800 Traffic Control<br>Arrow Boards   | 476.000<br>DAY                   | .          |     | .          |     |

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|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 1060       | 643.0900 Traffic Control<br>Signs                               | 7,134.000<br>DAY                 | .          |     | .          |     |
| 1070       | 643.0920 Traffic Control<br>Covering Signs Type II              | 17.000<br>EACH                   | .          |     | .          |     |
| 1080       | 643.1000 Traffic Control<br>Signs Fixed Message                 | 3.750<br>SF                      | .          |     | .          |     |
| 1090       | 643.1050 Traffic Control<br>Signs PCMS                          | 573.000<br>DAY                   | .          |     | .          |     |
| 1100       | 643.1055.S Truck or<br>Trailer Mounted<br>Attenuator            | 23.000<br>DAY                    | .          |     | .          |     |
| 1110       | 645.0120 Geotextile<br>Fabric Type HR                           | 35.000<br>SY                     | .          |     | .          |     |
| 1120       | 646.0106 Pavement<br>Marking Epoxy 4-Inch                       | 17,130.000<br>LF                 | .          |     | .          |     |
| 1130       | 646.0126 Pavement<br>Marking Epoxy 8-Inch                       | 400.000<br>LF                    | .          |     | .          |     |
| 1140       | 646.0600 Removing<br>Pavement Markings                          | 64,830.000<br>LF                 | .          |     | .          |     |
| 1150       | 649.0400 Temporary<br>Pavement Marking<br>Removable Tape 4-Inch | 6,000.000<br>LF                  | .          |     | .          |     |

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|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 1160       | 649.0402 Temporary<br>Pavement Marking Paint<br>4-Inch                              | 40,900.000<br>LF                 | .          |     | .          |     |
| 1170       | 649.0802 Temporary<br>Pavement Marking Paint<br>8-Inch                              | 800.000<br>LF                    | .          |     | .          |     |
| 1180       | 690.0150 Sawing Asphalt   | 50.000<br>LF                     | .          |     | .          |     |
| 1190       | 690.0250 Sawing Concrete  | 8,195.000<br>LF                  | .          |     | .          |     |
| 1200       | 715.0415 Incentive<br>Strength Concrete<br>Pavement                                 | 500.000<br>DOL                   | 1.00000    |     | 500.00     |     |
| 1210       | 715.0502 Incentive<br>Strength Concrete<br>Structures                               | 2,240.000<br>DOL                 | 1.00000    |     | 2240.00    |     |
| 1220       | SPV.0035 Special 001.<br>Roadway Embankment   | 7,700.000<br>CY                  | .          |     | .          |     |
| 1230       | SPV.0060 Special 001.<br>Baseline CPM Progress<br>Schedule                          | 2.000<br>EACH                    | .          |     | .          |     |
| 1240       | SPV.0060 Special 002.<br>CPM Progress Schedule<br>Updates And Accepted<br>Revisions | 14.000<br>EACH                   | .          |     | .          |     |
| 1250       | SPV.0060 Special 003.<br>Salvage Terminal<br>High-Tension Cable TL-3,<br>Safence    | 1.000<br>EACH                    | .          |     | .          |     |



## SCHEDULE OF ITEMS

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CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160209002

1003-10-88

N/A

1005-10-84

N/A

CONTRACTOR : \_\_\_\_\_

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|------------|---|----------------------------------|------------|-----|------------|-----|
|            |   |                                  | DOLLARS    | CTS | DOLLARS    | CTS |
| 1260       | SPV.0060 Special 004.<br>Terminal High-Tension<br>Cable TL-3, Gibraltar                         | 2.000<br>EACH                    | .          |     | .          |     |
| 1270       | SPV.0060 Special 005.<br>Terminal High-Tension<br>Cable TL-3, Safence                           | 1.000<br>EACH                    | .          |     | .          |     |
| 1280       | SPV.0090 Special 001.<br>High-Tension Cable TL-3,<br>Socketed, Gibraltar                        | 1,520.000<br>LF                  | .          |     | .          |     |
| 1290       | SPV.0090 Special 002.<br>Removing HMA Pavement<br>Safety Wedge<br>Longitudinal Joint<br>Milling | 6,100.000<br>LF                  | .          |     | .          |     |
| 1300       | SPV.0090 Special 003.<br>Salvage High-Tension<br>Cable TL-3, Socketed,<br>Safence               | 1,510.000<br>LF                  | .          |     | .          |     |
| 1310       | SPV.0090 Special 201.<br>Traffic Control GawK<br>Screen Furnished                               | 524.000<br>LF                    | .          |     | .          |     |
| 1320       | SPV.0090 Special 202.<br>Traffic Control GawK<br>Screen Installed                               | 524.000<br>LF                    | .          |     | .          |     |
| 1330       | SPV.0105 Special 001.<br>Survey Project<br>1003-10-88   | LUMP                             | LUMP       |     | .          |     |
| 1340       | SPV.0105 Special 002.<br>Survey Project<br>1005-10-84   | LUMP                             | LUMP       |     | .          |     |
|            | SECTION 0001 TOTAL  |                                  |            |     | .          |     |
|            | TOTAL BID   |                                  |            |     | .          |     |



**PLEASE ATTACH SCHEDULE OF ITEMS HERE**