HIGHWAY WORK PROPOSAL

Proposal Number: 0 1

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Rock	1003-10-84	WISC 2017 326	Illinois State Line – Madison STH 11 to CTH O	IH 39
Rock	1005-10-76	WISC 2017 327	Illinois State Line – Madison CTH O to USH 14 Interchange North	IH 39
Rock	1005-11-71		Illinois State Line – Madison Racine St Inch/Midland Ct Park & Ride	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, $ 1,000,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: July 11, 2017 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time May 21, 2020	
Assigned Disadvantaged Business Enterprise Goal 10 %	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	
Grading, base aggregate, HMA pavement, concrete pavement, concrete barrier, guardrail, Structures B-53-0214/0215/0229/0230/0330/0331/0332/0333/0334/0335/0336/0337, R-53-35/36/38/39/40/41, N-53-10/11/12/13/14/15/16/17/18, S-53-76/77/107/108 culvert pipe, storm sewer, boring and jacking, concrete curb and gutter, concrete sidewalk, permanent signing, pavement marking, lighting and ITS.	
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 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 web site.
2. Use Expedite™ software to enter a unit price for every item in the schedule of items.
3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
4. Submit the bid before the hour and date the Notice to Contractors designates.
5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.

(3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:

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

Use Expedite ™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

(3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.

(4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

(5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

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

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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.

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.

4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.

7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

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

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

(1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project Projects 1003-10-84, Illinois State Line – Madison, STH 11 to CTH O, IH 39/90; ID 1005-10-76, Illinois State Line – Madison, CTH O to USH 14 Interchange North, IH 39/90; ID 1005-11-71, Illinois State Line – Madison, Racine Street Inch/Midland Ct Park & Ride, IH 39/90 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, 2017 Edition, as published by the department, the City of Janesville Standard Specifications for Public Works Construction, Current Edition, and these special provisions. In the event of a conflict with the City of Janesville Standard Specifications for Public Works Construction, Current Edition, the governing order of documents in standard spec 105.4 take precedence.

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 (20161130)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate, HMA pavement, concrete pavement, concrete barrier, guardrail, Structures B-53-0214/0215/0229/0230/0330/0331/0332/0333/0334/0335/0336/0337, R-53-35/36/38/39/40/41, N-53-10/11/12/13/14/15/16/17/18, S-53-76/77/105/106/107/108, culvert pipe, storm sewer, boring and jacking, concrete curb and gutter, concrete sidewalk, permanent signing, pavement marking, lighting, ITS 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 ten calendar days before the approved start date.

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

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment. Included in this "Prosecution and Progress" special provision are interim and final completion dates. These dates indicate that work efforts will possibly require multiple or concurrent controlling operations to occur at the same time. This information is included to assist the contractor and its subcontractors and shall not be interpreted as a demonstration of specified means and methods or work periods other than intermediate and completion dates. Indicate on the proposed schedule of operations that a large force and adequate equipment will be needed to assure that the work will be completed within the established contract time.

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.

Winter weather work, excavation for frozen ground, high ground water and dewatering during winter months shall not be considered adverse weather delays to construction. Cost of dewatering is considered incidental to construction.

Anticipate cold weather and early spring concrete paving and ancillary concrete work (curb, median barrier, etc.). Plan to heat aggregates and water for mixes and that the heating of the aggregate and water is considered incidental to those concrete items. There will be no adverse weather delay for cold weather construction.

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.

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

In accordance to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal, but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

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

Fish Spawning
There shall be no instream disturbance of Spring Brook as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts to developing fish eggs and substrate for aquatic organisms.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.
Fish (20090901)

A Schedule of Operations
Project 1003-10-84
The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Grading/drainage pipe installation adjacent to the Wisconsin and Southern Railroad and CTH O (west of IH 39/90); Traffic control to accommodate work completed under project 1005-10-76
- Stage 2 – Reconstruct IH 39/90 northbound; Widen/redeck B-53-230
- Stage 3 – Construct temporary ramp crossover pavement in the IH 39/90 median and place temporary barrier and pavement marking for Stage 4 bi-directional traffic
- Stage 4 – Reconstruct IH 39/90 southbound; Widen/redeck B-53-229
- Stage 5 – Complete IH 39/90 median

Project 1005-10-76
The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Construct crossovers and place temporary barrier and pavement marking for Stage 2 bi-directional traffic
- Stage 2 – Reconstruct IH 39/90 northbound
- Stage 3 – Construct IH 39/90 northbound inside shoulder, median and crossovers and place temporary barrier and pavement marking for Stage 4 bi-directional traffic
- Stage 4 – Reconstruct IH 39/90 southbound
- Stage 5 – Complete IH 39/90 median

Project 1005-11-71

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

- Stage 2 Phase 2 and 3 – construct park and ride and access road

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, lighting, tubular marker posts, barricades, and traffic control drums for the stage are in place, and conflicting pavement markings and signs are removed as shown in the traffic control plans and as directed by the engineer.

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 1003-10-84, 1005-10-76, and 1005-11-71. 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, City of Janesville, City of Janesville Transit, Town of La Prairie 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.

Coordination with projects 1003-10-76/81 and 1005-10-77 will be required for traffic control staging.

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

Shift IH 39/90 traffic to their respective locations as shown in Stage 2, Phase 2 prior to 12:01 A.M. on April 1, 2018. This IH 39/90 traffic shift will not be allowed prior to 5:00 A.M. on March 15, 2018, unless approved by the engineer.

Shift IH 39/90 traffic to their respective locations as shown in Stage 2, Phase 4 (between Station 665+50 and the end of the project limits) for project 1003-10-84 and Stage 3 for project 1005-10-76 prior to 12:01 A.M. on October 4, 2018.

Shift IH 39/90 traffic to their respective locations as shown in Stage 4, Phase 1 prior to 12:01 A.M. on April 1, 2019. This IH 39/90 traffic shift will not be allowed prior to 5:00 A.M. on March 15, 2019, unless approved by the engineer.

Shift IH 39/90 traffic to their respective locations as shown in Stage 5 prior to 12:01 A.M. on December 20, 2019.

Project 1003-10-84

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

Shift IH 39/90 traffic to their respective locations as shown in Stage 3 (between the begin project limit and Station 665+50) prior to 12:01 A.M. on November 15, 2018.

The IH 39/90 northbound entrance-ramp from STH 11/Avalon Road will be allowed to be closed for one night during allowable time periods to allow for the placement of concrete barrier temporary precast and pavement markings along temporary ramp VAX2 during Stage 2 Phase 2. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 northbound entrance-ramp from STH 11/Avalon Road will be allowed to be closed for one night during allowable time periods to allow for the removal of the temporary ramp connection adjacent to the newly constructed VA ramp during Stage 2 Phase 4. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for up to three nights during allowable time periods to allow for the construction of temporary ramp VDX2 adjacent to the newly constructed VD ramp during Stage 3A. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for up to one night during allowable time periods to allow for the placement of concrete barrier temporary precast and pavement markings along temporary ramp VDX2 during Stage 4 Phase 1. Do not reopen the ramp until all debris and equipment are removed from the traveled

way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for up to one night during allowable time periods to allow for the installation of the storm sewer run between inlet structure 600B and inlet structure 600C during Stage 4 Phase 1. Do not reopen the ramp until the storm sewer trench is backfilled, paved with HMA Pavement 4 MT 58-28 S, and all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for up to one night during allowable time periods to allow for the removal of the temporary ramp connection adjacent to the newly constructed VD ramp during Stage 4 Phase 2. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

CTH O will be allowed to be closed for two consecutive calendar days for the removal of the existing IH 39/90 bridge decks over CTH O during each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229). Do not reopen CTH O until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen CTH O until all signs, drums, barricades, and traffic control devices required to close CTH O are covered, moved, or removed.

CTH O will be allowed to be closed for two consecutive calendar days for the placement of new girders over CTH O during each of the following stages: Stage 2 Phase 2 (B-53-230) and Stage 4 Phase 1 (B-53-229). Do not reopen CTH O until all equipment is removed from the traveled way of the local road and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen CTH O until all signs, drums, barricades, and traffic control devices required to close CTH O are covered, moved, or removed.

CTH O will be allowed to be closed for three consecutive calendar days for constructing structure deck falsework over CTH O during each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229). Do not reopen CTH O until all debris and equipment are removed from the traveled way and its clear zone

as defined in the Traffic Article of these special provisions. Do not reopen CTH O until all signs, drums, barricades, and traffic control devices required to close CTH O are covered, moved, or removed.

CTH O will be allowed to be closed for two consecutive calendar days for removing structure deck falsework over CTH O during each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229). Do not reopen CTH O until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen CTH O until all signs, drums, barricades, and traffic control devices required to close CTH O are covered, moved, or removed.

The IH 39/90 southbound entrance-ramp from STH 11/Racine Street will be allowed to be closed for two consecutive calendar days to minimize potential bridge deck vibration during the deck pour and initial cure period at structure B-53-229 during each of the following stages: Stage 4 Phase 1 and Stage 4 Phase 2. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

Project 1005-10-76

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

One night of rolling stop closures will be allowed on IH 39/90 for the sign truss installation of structure S-53-77. The rolling stop closures will occur in 15 minute increments and can continue until the installation of the sign truss completed. See the Traffic article of these special provisions for allowed time periods.

Palmer Drive, Ruger Avenue, and Mt Zion Avenue will each be allowed to be closed for two consecutive calendar days for the removal of each of the existing IH 39/90 bridges over the associated local road. Do not reopen the local road until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open the local road until all signs, barrels, barricades, and traffic control devices required to close the local road are covered, moved, or removed.

Milwaukee Street will be allowed to be closed for four consecutive calendar days for the removal of the existing IH 39/90 bridges over the associated local road. Do not reopen the local road until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open the local road until all signs, barrels, barricades, and traffic control devices required to close the local road are covered, moved, or removed.

Palmer Drive, Ruger Avenue, Milwaukee Street and Mt Zion Avenue will each be allowed to be closed for two consecutive calendar days for the placement of girders for each of the

new IH 39/90 bridges over the associated local road. Do not reopen the local road until all debris and equipment are removed from the traveled way of the local road and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open the local road until all signs, barrels, barricades, and traffic control devices required to close the local road are covered, moved, or removed.

Palmer Drive, Ruger Avenue, Milwaukee Street and Mt Zion Avenue will each be allowed to be closed for three consecutive calendar days for constructing deck falsework over roadway areas for each of the new IH 39/90 bridges over the associated local road. Do not reopen the local road until all debris and equipment are removed from the traveled way of the local road and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open the local road until all signs, barrels, barricades, and traffic control devices required to close the local road are covered, moved, or removed.

Palmer Drive, Ruger Avenue, Milwaukee Street and Mt Zion Avenue will each be allowed to be closed for two consecutive calendar days for removing deck falsework over roadway areas for each of the new IH 39/90 bridges over the associated local road. Do not reopen the local road until all debris and equipment are removed from the traveled way of the local road and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open the local road until all signs, barrels, barricades, and traffic control devices required to close the local road are covered, moved, or removed.

Once construction activities begin along Randolph Road complete all work within fourteen calendar days.

Closure of Mt. Zion Avenue will not be allowed while Milwaukee Street is closed.

Closure of Milwaukee Street will not be allowed while Mt. Zion Avenue is closed.

Closure of Palmer Drive will not be allowed while Ruger Avenue is closed.

Closure of Ruger Avenue will not be allowed while Palmer Drive is closed.

Removing existing structure operations, pile driving operations, temporary shoring placement and pavement breaking operations are not allowed from 10:00 PM to 6:00 AM.

Project 1005-11-71

Complete Project 1005-11-71 between April 1, 2018 and August 31, 2018. Once construction activities begin the complete the project within 42 calendar days.

Do not close traffic lanes or shoulders on Midland Court outside the allowed time periods specified in the Traffic article of these special provisions.

D Other Electrical Work Requirements

Project 1005-10-76

The engineer will authorize the removal of existing City of Janesville lighting systems components. Minimize the duration of lighting system outages to the greatest extent possible for the underpasses of Palmer Drive, Ruger Road, Spring Brook Trail, Milwaukee Street and Mt. Zion Road.

Obtain a City of Janesville Electrical Permit from the Housing, Building, and Development Services Division prior to performing any work. Pay all permit fees.

Stage the construction operations to ensure that the camera, Bluetooth sensor, and wireless mesh node located at Milwaukee Street (CCTV-53-0107, WDS-0107, and WMN-0064) are not down for more than five consecutive days.

E Interim and Final Completion of Work

Projects 1003-10-84 and 1005-10-76

If the contractor fails to complete all work as shown in Stage 2, Phase 1, 1A and 1B and shift traffic to their respective locations as shown in Stage 2, Phase 2 prior to 12:01 A.M. on April 1, 2018, the department will assess the contractor $20,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 A.M., April 1, 2018. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 2, Phase 2 beyond 12:01 A.M., April 1, 2018.

If the contractor fails to complete all work as shown in Stage 2, Phase 3 and shift traffic to their respective locations as shown in Stage 2, Phase 4 (between Station 665+50 and the end of the project limits) for project 1003-10-84 and Stage 3 for project 1005-10-76 prior to 12:01 A.M. on October 4, 2018, the department will assess the contractor $20,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 A.M., October 4, 2018. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 2, Phase 4 (between Station 665+50 and the end of the project limits) for project 1003-10-84 and Stage 3 for project 1005-10-76 beyond 12:01 A.M., October 4, 2018.

If the contractor fails to complete all work as shown in Stage 3 and shift traffic to their respective locations as shown in Stage 4, Phase 1 prior to 12:01 A.M. on April 1, 2019, the department will assess the contractor $20,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 A.M., April 1, 2019. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 4, Phase 1 beyond 12:01 A.M., April 1, 2019.

If the contractor fails to complete all work as shown in Stage 4, Phase 2 and shift traffic to their respective locations as shown in Stage 5 prior to 12:01 A.M. on December 20, 2019, the department will assess the contractor $20,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 A.M., December 20, 2019.

An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 5 beyond 12:01 A.M., December 20, 2019.

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If the contractor fails to complete all work as shown in Stage 2, Phase 4 (between the begin project limit and Station 665+50) and shift traffic to their respective locations as shown in Stage 3 (between the begin project limit and Station 665+50) prior to 12:01 A.M. on November 15, 2018, the department will assess the contractor $8,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 A.M., November 15, 2018. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 3 (between the begin project limit and Station 665+50) beyond 12:01 A.M., November 15, 2018.

If the contractor fails to complete all work necessary to reopen CTH O to traffic within two consecutive calendar days of beginning bridge deck removal activities during each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229), the department will assess the contractor $2,065 in interim liquidated damages for each calendar day CTH O remains closed to traffic beyond two consecutive calendar days for each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-230). An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each stage.

If the contractor fails to complete all work necessary to reopen CTH O to traffic within two consecutive calendar days of beginning girder placement activities during each of the following stages: Stage 2 Phase 2 (B-53-230) and Stage 4 Phase 1 (B-53-229), the department will assess the contractor $2,065 in interim liquidated damages for each calendar day CTH O remains closed to traffic beyond two consecutive calendar days for each of the following stages: Stage 2 Phase 2 (B-53-230) and Stage 4 Phase 1 (B-53-229). An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each stage.

If the contractor fails to complete all work necessary to reopen CTH O to traffic within three consecutive calendar days of beginning bridge deck falsework activities over CTH O during each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229), the department will assess the contractor $2,065 in interim liquidated damages for each calendar day CTH O remains closed to traffic beyond three consecutive calendar days for each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229). An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each stage.

If the contractor fails to complete all work necessary to reopen CTH O to traffic within two consecutive calendar days of beginning bridge deck falsework removal activities over CTH O during each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229), the department will assess the contractor $2,065 in interim liquidated damages for each calendar day CTH O remains closed to traffic beyond two consecutive calendar days for each of the following stages: Stage 2 Phase 2 (B-53-230), Stage 4 Phase 1 (B-53-229), and Stage 4 Phase 2 (B-53-229). An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each stage.

If the contractor fails to complete all work necessary to reopen the IH 39/90 southbound entrance-ramp from STH 11/Racine Street to traffic within two consecutive calendar days of beginning the B-53-229 structure deck pour activities for each of the following stages: Stage 4 Phase 1 and Stage 4 Phase 2, the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the IH 39/90 southbound entrance-ramp from STH 11/Racine Street remains closed to traffic beyond two consecutive calendar days for each of the following stages: Stage 4 Phase 1 and Stage 4 Phase 2. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each stage.

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If the contractor fails to complete all work to reopen the local roads within two consecutive calendar days of beginning bridge removal activities for structures B-53-29, B-53-30, B-53-59, B-53-60, B-53-61, B-53-62, B-53-63, and B-53-64, the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the local road remains closed beyond two consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each structure.

If the contractor fails to complete all work to reopen the local road within four consecutive calendar days of beginning bridge removal activities for structures B-53-214 and B-53-215, the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the local road remains closed beyond four consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each structure.

If the contractor fails to complete all work to reopen the local roads within two consecutive calendar days of beginning girder placement activities for structures B-53-214, B-53-215, B-53-330, B-53-331, B-53-334, B-53-335, B-53-336 and B-53-337, the department will assess the contractor $2065 in interim liquidated damages for each calendar day the local road remains closed beyond two consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each structure.

If the contractor fails to complete all work to reopen the local roads within three consecutive calendar days of beginning deck falsework activities over roadway areas for structures B-53-214, B-53-215, B-53-330, B-53-331, B-53-334, B-53-335, B-53-336 and B-53-337, the department will assess the contractor $2065 in interim liquidated damages for each calendar day the local road remains closed beyond three consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each structure.

If the contractor fails to complete all work to reopen the local roads within two consecutive calendar days of beginning deck falsework removal over roadway areas for structures B-53-214, B-53-215, B-53-330, B-53-331, B-53-334, B-53-335, B-53-336 and B-53-337, the department will assess the contractor $2065 in interim liquidated damages for each calendar day the local road remains closed beyond two consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M. Interim liquidated damages will be assessed separately for each structure.

If the contractor fails to complete all work along Randolph Road within fourteen consecutive calendar days of beginning the Randolph Road construction, the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the local road remains closed beyond fourteen consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 A.M.

Project 1005-11-71

If the contractor fails to complete all work at park and ride and access road within forty-two consecutive calendar days of beginning construction activities, the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the contract work remains incomplete beyond forty-two consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 A.M.

The department will not grant time extensions for the following:

1. Severe weather as specified in standard spec 108.10.2.2.
2. Labor disputes that are not industry wide.
3. Delays in material deliveries.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed in accordance to subsection 108.11 of the standard specifications.

4. Lane Rental Fee Assessment.

A General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside

of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

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

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

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, 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.

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

- $10,000 per lane, per direction of travel, per hour broken into 15 minute increments

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

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

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

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

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires prior to the completion of specified work in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.
stp-108-065 (20161130)

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.

Do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in this article.

Any revisions to the traffic control plans shall adhere to the Notice to Contractor, Revisions to Traffic Control Plans article of these special provisions.

IH 39/90, STH 11 (Racine Street), CTH O and local roads 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 article of these special provisions.

Do not close IH 39/90 travel lanes, local road travel lanes, or IH 39/90 ramps prior to or after the specified times provided in this article. If the contractor closes lanes or ramps prior to or fails to open lanes of traffic or ramps by the specified times, then a fee based upon the Lane Rental Fee Assessment article of these special provisions will be assessed to the contractor.

B Traffic Operations During All Stages

- Maintain two lanes of traffic in each direction at all times on IH 39/90*.
- Maintain the existing number of lanes of traffic in each direction at all times on local roads*.
- Maintain traffic on ramps at all times**.
- Maintain mainline traffic on IH 39/90, STH 11 (Racine Street), CTH O and local roads 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 ramps.
- Maintain a minimum lane width of 11-feet on STH 11 (Racine Street), CTH O and local roads.

**Lane, shoulder, and rolling stop closures allowed as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.*

***Ramp closures allowed as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.*

C Traffic Operations

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- Stage 1, Phase 1
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - Traffic will be maintained on all existing lanes at all times along the IH 39/90 southbound exit-ramp and northbound entrance-ramp at the STH 11/Avalon Road interchange.
  - CTH O traffic will be maintained on all existing lanes at all times.

- Stage 1, Phase 2
  - IH 39/90 traffic will be maintained on all existing lanes except near the end project limit where IH 39/90 northbound traffic will be shifted towards the outside shoulder to match the traffic operations of project 1005-10-76. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - Traffic will be maintained on all existing lanes at all times along the IH 39/90 southbound exit-ramp and northbound entrance-ramp at the STH 11/Avalon Road interchange.
  - CTH O: One lane of traffic will be maintained in the westbound direction and one lane of traffic will be maintained in the eastbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 2, Phase 1
  - IH 39/90: Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - Traffic will be maintained on all existing lanes at all times along the IH 39/90 southbound exit-ramp and northbound entrance-ramp at the STH 11/Avalon Road interchange.
  - CTH O: One lane of traffic will be maintained in the westbound direction and one lane of traffic will be maintained in the eastbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 2, Phase 2
  - IH 39/90 northbound traffic will use the crossover constructed by others under project 1003-10-81 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will use a crossover constructed under project 1005-10-76 to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will be shifted to the outside of southbound IH 39/90. Traffic will switch at the

completion of Stage 2, Phase 1. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will switch from the existing northbound entrance-ramp to temporary ramp crossover 'VAX2', constructed in Stage 2, Phase 1, at the completion of Stage 2, Phase 1. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
- IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
- CTH O: One lane of traffic will be maintained in the westbound and eastbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 2, Phase 3
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the southbound side of IH 39/90. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will continue to use temporary ramp crossover 'VAX2', constructed in Stage 2, Phase 1. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Racine Street interchange will switch to temporary ramp crossover 'X1' constructed in Stage 2, Phase 2 at the completion of Stage 2, Phase 2. IH 39/90 northbound exit-ramp traffic at the STH 11/Racine Street interchange will be maintained at all times.
  - CTH O traffic will be maintained on all existing lanes at all times.

- Stage 2, Phase 4
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the southbound side of IH 39/90 between the begin project limits and Station 665+50. Between Station 665+50 and the end project limits, IH 39/90 northbound traffic will use mainline crossover 'X4' constructed in Stage 2, Phase 2 to switch to the new northbound side of IH 39/90 constructed in Stage 2, Phase 2/Phase 3 to match the traffic operations of project 1005-10-76. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp crossover 'VAX2' to temporary ramp 'VAX3' on the new northbound side of IH 39/90, constructed in Stage 2, Phase 2/Phase 3 to merge into mainline crossover 'X4.' IH 39/90 northbound entrance ramp traffic at the STH 11/Avalon Road interchange will switch upon the completion of the new northbound side of IH 39/90 within the limits of the 'VAX3' temporary ramp. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
- IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
- CTH O traffic will be maintained on all existing lanes at all times.

- Stage 3
  - Between the begin project limits and Station 665+50, IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90 and IH 39/90 northbound traffic will be shifted to the outside of northbound IH 39/90 at the completion of Stage 2, Phase 4 using a mainline crossover constructed by others under project 1003-10-81. Between Station 665+50 and the end project limits, IH 39/90 northbound traffic will remain on the outside of northbound IH 39/90 and southbound will remain on the outside of southbound IH 39/90. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp 'VAX3' to the IH 39/90 northbound entrance-ramp 'VA' constructed in Stage 2. IH 39/90 northbound entrance ramp traffic at the STH 11/Avalon Road interchange will switch at the completion of Stage 2, Phase 4. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - CTH O traffic will be maintained on all existing lanes at all times.

- Stage 4, Phase 1
  - IH 39/90 northbound traffic will continue to use the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will use a mainline crossover constructed under project 1005-10-76 to switch to the inside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will use a mainline crossover constructed by others under project 1003-10-81 to switch back to the southbound side of IH 39/90. Traffic will switch at the completion of Stage 3. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be

maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will continue to use the IH 39/90 northbound entrance-ramp 'VA' constructed in Stage 2. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
- IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch from the existing southbound exit-ramp to temporary ramp crossover 'VDX2' constructed in Stage 3A at the completion of Stage 3. IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
- IH 39/90 southbound entrance-ramp traffic at the STH 11/Racine Street interchange will switch to temporary ramp crossover 'X2' constructed in Stage 2, Phase 2/Stage 3 at the completion of Stage 3.
- CTH O: One lane of traffic will be maintained in the westbound and eastbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 4, Phase 2
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the new northbound side of IH 39/90 completed in Stage 2. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will continue to use the IH 39/90 northbound entrance-ramp 'VA' constructed in Stage 2. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp crossover 'VDX2' to temporary ramp 'VDX3'at the completion of Stage 4, Phase 1. IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - IH 39/90 southbound entrance-ramp traffic at the STH 11/Racine Street interchange will switch to temporary ramp crossover 'X3' constructed in Stage 4, Phase 1 at the completion of Stage 4, Phase 1.
  - CTH O: One lane of traffic will be maintained in the westbound direction and one lane of traffic will be maintained in the eastbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 5
  - IH 39/90 northbound traffic will continue to use the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will switch to the outside of the new southbound side of IH 39/90 at the completion of Stage 4, Phase 2. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.
  - IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will continue to use the IH 39/90 northbound entrance-ramp 'VA' constructed in Stage 2. IH 39/90 northbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp 'VDX3' to the IH 39/90 southbound exit-ramp 'VD' constructed in Stage 4, Phase 1. IH 39/90 southbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - CTH O: One lane of traffic will be maintained in the westbound direction and one lane of traffic will be maintained in the eastbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections.

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- Stage 1, Phase 1
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Traffic will be maintained on all existing lanes at all times along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90.
  - Palmer Drive traffic will be maintained on all existing lanes at all times.
  - Ruger Avenue traffic will be maintained on all existing lanes at all times.
  - Milwaukee Street traffic will be maintained on all existing lanes at all times.
  - Mt. Zion traffic will be maintained on all existing lanes at all times.

- Stage 1, Phase 2
  - IH 39/90 northbound traffic will shift to utilize the repaired outside shoulder constructed in Stage 1, Phase 1. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Traffic will be maintained on all existing lanes at all times along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90.
  - Palmer Drive traffic will be maintained on all existing lanes at all times.
  - Ruger Avenue traffic will be maintained on all existing lanes at all times.
  - Milwaukee Street traffic will be maintained on all existing lanes at all times.
  - Mt. Zion traffic will be maintained on all existing lanes.

- Stage 2, Phase 1
  - IH 39/90 northbound traffic will utilize an existing crossover north of Palmer Drive to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will utilize crossover 'XNB' constructed in Stage 2, Phase 1 to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will shift to the outside of southbound IH 39/90. Traffic will switch at the completion of Stage 1, Phase 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Traffic will be maintained on all existing lanes at all times along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90.
  - Palmer Drive traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 2, Phase 2
  - IH 39/90 northbound traffic will utilize a crossover constructed by others under project 1003-10-81 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will continue to utilize crossover 'XNB' constructed in Stage 2, Phase 1 to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will continue to be shifted to the outside of southbound IH 39/90. Traffic will switch at the completion of Stage 2, Phase 1. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Northbound on and off-ramp traffic at the STH 11/Racine Street interchange will be switched from the existing northbound on and off-ramps to the temporary ramps 'TRA' and 'TRB' constructed in Stage 1, Phase 2 and Stage 2, Phase 1 at the completion of Stage 2, Phase 1. Traffic will be maintained on all existing lanes at all times.
  - Southbound on and off-ramp traffic at the STH 11/Racine Street interchange will be maintained on all existing lanes at all times.
  - Palmer Drive traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 2, Phase 3
  - IH 39/90 northbound traffic will continue to utilize a crossover constructed by others under project 1003-10-81 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will continue to utilize crossover 'XNB' constructed in Stage 2, Phase 1 to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will continue to be shifted to the outside of southbound IH 39/90. Traffic will switch at the completion of Stage 2, Phase 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Northbound on and off-ramp traffic at the STH 11/Racine Street interchange will be switched from the temporary northbound on and off-ramps 'TRA' and 'TRB' to the new northbound on and off ramps 'RA' and 'RB' constructed in Stage 2, Phase 2. Traffic will be switched at the completion of Stage 2, Phase 2. Traffic will be maintained on all existing lanes at all times.
  - Southbound on and off-ramp traffic at the STH 11/Racine Street interchange will be maintained on all existing lanes at all times.
  - Palmer Drive traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 3
  - IH 39/90 northbound traffic will utilize a crossover constructed by others under project 1003-10-81 to switch to the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will continue to be shifted to the outside of southbound IH 39/90. Traffic will switch at the completion of Stage 2, Phase 3. Two lanes of traffic will be maintained in the

northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Northbound on and off-ramp traffic at the STH 11/Racine Street interchange will continue to use the new northbound on and off ramps 'RA' and 'RB' constructed in Stage 2, Phase 2. Traffic will be maintained on all existing lanes at all times.
  - Southbound on and off-ramp traffic at the STH 11/Racine Street interchange will be maintained on all existing lanes at all times.
  - Palmer Drive traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 4, Phase 1
  - IH 39/90 northbound traffic will continue to utilize the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 northbound traffic will utilize the mainline crossover 'XML' to switch to the southbound side of IH 39/90 to accommodate project 1005-10-77. IH 39/90 southbound traffic will utilize mainline crossover 'XML' to switch to the inside of the new northbound side of IH 39/90. IH 39/90 southbound traffic will utilize a crossover constructed by others under contract 1003-10-81 to switch back to the southbound side of IH 39/90. Traffic will switch at the completion of Stage 3. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Northbound on and off-ramp traffic at the STH 11/Racine Street interchange will continue to use the new northbound on and off ramps 'RA' and 'RB' constructed in Stage 2, Phase 2. Traffic will be maintained on all existing lanes at all times.
  - Southbound on and off-ramp traffic at the STH 11/Racine Street interchange will be switched from the existing southbound on and off-ramps to the temporary ramps 'TRC' and 'TRD' constructed in Stage 3 at the completion of Stage 3. Traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Palmer Drive traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 4, Phase 2
  - IH 39/90 northbound traffic will continue to utilize the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 northbound traffic will continue to utilize the mainline crossover 'XML' to switch to the southbound side of IH 39/90 to accommodate project 1005-10-77. IH 39/90 southbound traffic will continue to utilize mainline crossover 'XML' to switch to the inside of the new northbound side of IH 39/90. IH 39/90 southbound traffic will utilize a crossover constructed by others under contract 1003-10-81 to switch back to the southbound side of IH 39/90. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Northbound on and off-ramp traffic at the STH 11/Racine Street interchange will continue to use the new northbound on and off ramps 'RA' and 'RB' constructed in Stage 2, Phase 2. Traffic will be maintained on all existing lanes at all times.
  - Southbound on and off-ramp traffic at the STH 11/Racine Street interchange will be switched from the temporary southbound on and off-ramps 'TRC' and 'TRD' to the new southbound on and off-ramps 'RC' and 'RD' constructed in Stage 4, Phase 1 at the completion of Stage 4, Phase 1. Traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Palmer Drive traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
  - Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Stage 5
  - IH 39/90 northbound traffic will continue to utilize the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 northbound traffic

will continue to utilize the mainline crossover 'XML' to switch to the southbound side of IH 39/90 to accommodate project 1005-10-77. IH 39/90 southbound traffic will switch to the new southbound side of IH 39/90 constructed in Stage 4. IH 39/90 traffic will switch at the completion of Stage 4, Phase 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- Northbound on and off-ramp traffic at the STH 11/Racine Street interchange will continue to use the new northbound on and off ramps 'RA' and 'RB' constructed in Stage 2, Phase 2. Traffic will be maintained on all existing lanes at all times.
- Southbound on and off-ramp traffic at the STH 11/Racine Street interchange will continue to utilize the southbound on and off-ramps 'RC' and 'RD' constructed in Stage 4, Phase 1. Traffic will be maintained on all existing lanes at all times.
- Palmer Drive traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Ruger Avenue traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Milwaukee Street traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Mt. Zion traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

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- Stage 2, Phase 2 and 3
  - Midland Court traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder 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, and conflicting pavement markings and signs are removed as shown in the traffic control plans and as directed by the engineer.

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. Temporary lane closures and/or halting of traffic within open roadways and pedestrian paths require flaggers and will not be permitted outside of the permitted closure times listed in this article.

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 driveways in front of residential access points. Notify property owners at least two working days prior to closing their access point. Maintaining property access is included in 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 outside the allowed time periods specified in the Traffic article of these special provisions.

For temporary shoring installations, store materials and operate equipment within the work zone and not within the limits of adjacent lane closures.

D Lane and Shoulder Closures

Single lane closures on IH 39/90 may be permitted during nighttime hours as defined below in this article. 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.

Projects 1003-10-84 and 1005-10-76

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

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

Single lane closures in each direction along Milwaukee Street will be permitted at any time if required by the work operation. Provide seven calendar days advance notification to the engineer for approval of lane closures. Include justification for the lane closure and the anticipated duration in the request. A request does not constitute approval. Failure to obtain approval or reopen closed lanes at the required time shall be subject to assessments specified under the Lane Rental Fee Assessment of these special provisions.

Request approval from the engineer for all lane closures in accordance with 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 prior to the end of the Permitted Lane Closure Times. Failure to obtain approval or reopen closed lanes at the required time shall be subject to assessments specified under the Lane Rental Fee Assessment article 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.

Provide arrow boards for use during all single lane closures in accordance 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.

Flagging operations will be allowed along CTH O, Randolph Avenue, Midland Court, Palmer Drive, Ruger Avenue, Milwaukee Street, and Mt. Zion to accommodate the roadway and structure work between one hour after sunrise and one 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.

E Roadway, Ramp, and Rolling Stop 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.

Place Traffic Control Signs PCMS for all lane, roadway and ramp closures as shown on the plans at least seven days prior to the lane, roadway or ramp closure. Install all signing and devices for detour routes. Obtain approval from the department for all messages for the Traffic Control Signs PCMS. The engineer shall 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.

Roadway and Ramp Closures - Projects 1003-10-84 and 1005-10-76

Roadway closures will be allowed at CTH O, Palmer Drive, Ruger Avenue, Milwaukee Street, and Mt. Zion Avenue to accommodate the roadway and structure work as defined in the Prosecution and Progress article of these special provisions.

Ramp closures will be allowed at the IH 39/90 southbound entrance-ramp at the STH 11/Racine Street interchange as defined in the Prosecution and Progress article of these special provisions. The contractor shall have a superintendent or representative present during all hours that closures of the IH 39/90 southbound entrance-ramp at the STH 11/Racine Street interchange occur. During ramp closures, the superintendent or representative shall monitor the work activities to ensure that emergency vehicles are able to access the ramp. Refer to the nighttime ramp closures - Project 1003-10-84 section of this article for additional ramp closure information.

Rolling Closures

Permitted IH 39/90 Rolling Stop Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM

Contractor operations shall not require state patrol cars to stop IH 39/90 traffic for more than the number of nights listed in the Prosecution and Progress article of these special provisions during the times listed above. The necessary flag persons, advanced signing and law enforcement personnel are required to be on site prior to and during this operation. Make arrangements for implementing the rolling stops and closures on IH 39/90 through Jeff Gustafson at the Southwest Region Madison Office at (608) 516-6400, with the Southwest Region Office of the Wisconsin State Patrol, the Rock County Sheriff's Department, and the Dane County Sheriff's Department at least 10 days prior to any stoppage.

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

Nighttime Ramp Closures - Project 1003-10-84

The nighttime ramp closures of the IH 39/90 southbound exit-ramp and northbound entrance-ramp at the STH 11/Avalon Road interchange are specified in the Prosecution and Progress article of these special provisions.

Permitted IH 39/90 Southbound Exit-Ramp and Northbound Entrance-Ramp Nighttime Closure Hours at the STH 11/Avalon Road Interchange	
Day of the Week	Hours
Monday - Sunday	8:00 PM – 5:00 AM

Failure to reopen the ramps at the required times shall be subject to assessments specified under the Lane Rental Fee Assessment articles of these special provisions.

The contractor shall have a superintendent or representative present during all hours that closures of the southbound exit-ramp at STH 11/Avalon Road interchange and the northbound entrance-ramp at the STH 11/Avalon Road interchange occur. During ramp closures, the superintendent or representative shall monitor the work activities to ensure that emergency vehicles are able to access the ramp.

F Local Access to Project

Maintain local traffic access during the construction of the local roads. Stage construction activities as required to maintain local traffic access in accordance with the permitted closure and flagging operation times listed in this article of these special provisions.

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 eleven 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.

G Pedestrian Access

Maintain sidewalk at all times except during roadway closures and the construction of the bridge sub structure and MSE walls. Obtain approval from the engineer prior to closing any sidewalks. In areas of sidewalk construction, 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 temporary asphaltic surface, skid resistant steel plating, or alternative material as approved by the engineer. Gravel or base course material is not acceptable. Maintaining sidewalk is considered incidental to the contract.

When sidewalks are closed provide clear signage to direct pedestrians to an alternate pedestrian route except along Palmer Drive, Ruger Avenue, Milwaukee Street, and Mt. Zion Avenue where no alternative route will be provided. All temporary curb ramps shall meet the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and have a temporary detectable warning field.

Temporary crosswalks shall meet requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and shall consist of 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. Maintain ADA accessible pedestrian walkways that are free from mud, sand, and construction debris.

H 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 included in the Traffic Control Surveillance and Maintenance (Project) bid item.

I Advance Notification

Notify the Town of La Prairie, Riteway Bus Service, City of Janesville Police Department, Fire Department and Director of Public Works, 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, 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 Janesville School District along with Janesville Transit 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 to be included in the Traffic Control Surveillance and Maintenance (Project) bid item.

J 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 concrete barrier temporary precast. The construction clear zone for IH 39/90 is 20 feet. The construction clear zone for the southbound entrance-ramp at the STH 11/Racine Street interchange with IH 39/90, the southbound exit-ramp at STH 11/Avalon Road interchange with IH 39/90, and the northbound entrance-ramp at the STH 11/Avalon Road interchange with IH 39/90 is 18 feet. The construction clear zone for CTH O is 18 feet. The construction clear zone for

Palmer Drive, Ruger Avenue, Milwaukee Street, Mt. Zion Avenue, Randolph Road and Midland Court is 10 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. 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.

K 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.

L Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

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 shall contact the Southwest Region Madison Office Traffic Management Coordinator, Jeff Gustafson, (608) 516-6400.
108-057 (20160607)

M 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.

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

O Construction Access
All construction access is subject to approval of the engineer.

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

U-Turns at existing maintenance crossovers or temporary crossovers between IH 39/90 northbound and southbound will only be allowed 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.

P Winter Maintenance

During winter months park equipment outside of the clear zone to prevent damage to equipment from snow plowing operations. Do not store equipment or materials within the work zone which may interfere with horizontal sight distances along IH 39/90.

Snow may be plowed from the traveled roadway into the work zone by the maintaining authority. The contractor is responsible for any snow removal from the work zone that may be required to continue work operations.

The contractor is responsible for plowing any areas which may need to be cleared of snow or ice to accommodate changes in traffic control and to facilitate construction staging during winter months. The local maintaining authority will not provide snow plowing operations in areas outside of the active traveled lanes.

Re-install or adjust any traffic control devices that may be damaged, removed, or shifted as part of normal winter maintenance operations. Clean and maintain traffic control devices as necessary or directed as a result of winter maintenance operations.

Anticipated locations of traffic control devices are shown in the plans. Review the work zone with the engineer for locations where additional area may be available to maximize lane and shoulder widths over winter months to aid in winter maintenance operations and to maximize snow storage area. Adjust traffic control devices in these areas.

The contractor is responsible for snow and ice removal from any temporary sidewalk placed within the project. Maintain pedestrian access during winter months except as noted in the Pedestrian Access section of this article.

Snow plowing, ice removal including any road salt which may be required, maintenance and cleaning of traffic control devices, and other winter maintenance activities are incidental other items of work under this contract.

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 STH 11 (Racine Street) traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, September 1, 2017 to 6:00 AM Tuesday, September 5, 2017 for Labor Day;
- From 12:00 AM Monday October 9, 2017 to 11:59 PM Monday, October 9, 2017 for Columbus Day;
- From noon Friday, November 17, 2017 to 6:00 AM Monday, November 20, 2017 for Deer Hunting;
- From noon Wednesday, November 22, 2017 to 6:00 AM Monday, November 27, 2017 for Thanksgiving;
- From noon Friday, December 22, 2017 to 6:00 AM Tuesday, January 2, 2018 for Christmas and New Year's Eve;
- From noon Friday, March 30, 2018 to 6:00 AM Monday, April 2, 2018 for Easter;
- From noon Friday, May 25, 2018 to 6:00 AM Tuesday, May 29, 2018 for Memorial Day;
- From noon Friday, June 29, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day;
- From noon Friday, August 31, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day;
- From 12:00 AM Monday October 8, 2018 to 11:59 PM Monday, October 8, 2018 for Columbus Day;
- From noon Friday, November 16, 2018 to 6:00 AM Monday, November 19, 2018 for Deer Hunting;
- From noon Wednesday, November 21, 2018 to 6:00 AM Monday, November 26, 2018 for Thanksgiving;
- From noon Friday, December 21, 2018 to 6:00 AM Wednesday, January 2, 2019 for Christmas and New Year's Eve;
- From noon Friday, April 19, 2019 to 6:00 AM Monday, April 22, 2019 for Easter;
- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 28, 2019 for Memorial Day;
- From noon Wednesday, July 3, 2019 to 6:00 AM Monday, July 8, 2019 for Independence Day;
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019 for Labor Day;
- From 12:00 AM Monday October 14, 2019 to 11:59 PM Monday, October 14, 2019 for Columbus Day;
- From noon Friday, November 22, 2019 to 6:00 AM Monday, November 25, 2019 for Deer Hunting;
- From noon Wednesday, November 27, 2019 to 6:00 AM Monday, December 2, 2019 for Thanksgiving;
- From noon Friday, December 20, 2019 to 6:00 AM Thursday, January 2, 2020 for Christmas and New Year's Eve;
- From noon Friday, April 10, 2020 to 6:00 AM Monday, April 13, 2020 for Easter;
- From noon Friday, May 22, 2020 to 6:00 AM Tuesday, May 26, 2020 for Memorial Day.

stp-107-005 (20050502)

7. Railroad Insurance and Coordination.

A Description
Comply with standard spec 107.17 for all work affecting Wisconsin and Southern Railroad (WSOR) property and any existing tracks.

A.1 Railroad Insurance Requirements
In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of WSOR.

Notify evidence of the required coverage, and duration to Roger Schaalma at (608) 620-2044, 1890 East Johnson Street, Madison, WI 53704. Include the following information on the insurance document:

Project 1003-10-84 and 1005-10-76
Route Name IH 39/90, Rock County
Crossing ID 392396L
Railroad Subdivision Fox Lake
Railroad Milepost 95.17

A.2 Work by Railroad
The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. None

A.3 Names and addresses of Railroad Representatives for Consultation and Coordination
Contact Roger Schaalma, Superintendent of Maintenance of Way, Wisconsin and Southern Railroad Co., 1890 East Johnson Street, Madison, WI 53704; TELEPHONE (608) 620-2044; Ext. 4201; FAX (608) 243-9225; email rschaalma@watcocompanies.com for consultation on railroad requirements during construction.

Amend standard spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

A.4 Temporary Grade Crossing
If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 several weeks prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

A.5 Train Operation
Crossing ID 392396L
Approximately 0 passenger trains and 6 through freight trains operate daily through the construction site. Passenger trains operate at up to 0 mph. Through freight trains operate at up to 30 mph. One switching train movement occurs daily through the crossing.

A.6 Temporary Clearances During Construction

Replace subparagraphs (3) 4.1 and (3) 4.2 of standard spec 107.17.1 with the following:

Provide 12 feet 0 inches (3.66 m) plus 1.5 inches (38 mm) per degree of track curvature, measured horizontally from the track center line.

Provide 21 feet 0 inches (6.4 m) plus compensation for super-elevated track, measured vertically above the top of the highest rails.

B Railroad Flagging

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in standard spec 107.17.1 are not maintained during construction operations. The following conditions may also warrant flagging:

1. Cranes swinging or handling materials or equipment within 25 feet of the centerline of any track.
2. Construction operations that are in proximity of power lines or railroad signal and communication lines, underground cables, fuel oil facilities or pipe lines and which might result in fire or damage to such facilities, danger to railroad operations or danger to the public in the transaction of business on railroad premises.
3. Excavation, tunneling, blasting, pile driving, placing, or removing cofferdams or sheeting, or similar activities might cause the railroad's tracks or buildings to be undermined, heaved out of normal level, shifted out of alignment, or otherwise impaired.
4. Bridge painting activities including rigging of falsework, scaffolding or similar activities within 25 feet of the centerline of any track.
5. Deck removal activities within 25 feet of the centerline of any track.
6. Pouring of bridge decks in spans over an operated track.
7. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

Projects with heavy contractor activity within 25 feet of the centerline of any track or unusual or heavy impact on railroad facilities will normally require a full-time flagger.

The department and railroad will monitor operations for compliance with the above flagging requirements. Violations may result in removal from railroad property until arrangements to adhere to the flagging requirements are satisfied. If the railroad imposes additional flagging requirements beyond the above flagging requirements due to the previous violations, the contractor shall bear all costs of the additional flagging requirements.

C Flagging by Railroad– Railroad Does Not Pay Flagging Costs

C.1 General

Replace paragraph (3) of standard spec 107.17.1 with the following:

Comply with the railroad's rules and regulations regarding operations on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad. Notify the appropriate railroad representative as listed in section A.3 above, in writing, at least three business days before starting work near a track. Provide the specific time planned to start the operations.

Extended Duration Work or Longer Work Day (to be used when requiring a flagger for longer periods of time, 4-weeks or more, or working longer than an 8-hour work day, or as defined in section B.1.)

Work that requires railroad flaggers to occupy the work zone for longer duration or longer than the normal work day will require 40 day written notice to the railroad.

C.2 Rates – Wisconsin and Southern Railroad Company

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

$90 per hour for up to nine-hours at the work-site per day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$135 per hour for all hours over nine in any week-day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$135 per hour for up to nine hours at the work-site on Saturdays (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$180 per hour for all hours over nine on Saturdays (including wages, labor surcharges, meal, lodging, vehicle and mileage expenses).

$180 per hour for up to nine hours on Sundays or holidays (including wages, labor surcharges, meal, lodging, vehicle and mileage expenses).

C.3 Reimbursement Provisions

The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in section B above, the department will reimburse 50% of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event actual flagging rates exceed the rates stated above, the department will reimburse 100% of the portion of the rate that is greater than the rates stated above.

C.4 Excluded Conditions
The department will not reimburse any of the cost for additional flagging attributable to the following:

1. Additional flagging requirements imposed by the railroad beyond the flagging requirements provided in subsection B above due to violations by the contractor.
2. Temporary construction crossings arranged for by the contractor.

The contractor shall bear all costs of the additional flagging requirements for the excluded conditions.

C.5 Payment for Flagging
Railroads may issue progressive bills. Notify the railroad when the work is completed and request a final bill from the railroad. The railroad will issue a final bill. Promptly pay railroad-flagging bills, less any charges that may be in dispute. The department will pay for flagging reimbursement under the Railroad Flagging Reimbursement administrative item. The department will withhold flagging reimbursement until any disputed charges are resolved and the final bill is paid. No reimbursement for flagging will be made by the department if a violation of subsection B is documented.

D Rail Security Awareness and contractor Orientation
Prior to entry on railroad right-of-way, the contractor shall arrange for on-line security awareness and contractor orientation training and testing, and be registered through "e-RAILSAFE" for all contractor and subcontractor employees working on railroad right-of-way. See e-railsafe.com "Information". The security awareness and contractor orientation training is shown under the railroad's name. The department has secured right of entry to railroad property; neither the contractor nor subcontractors or their employees will be required to sign a right-of-entry form. The security awareness and contractor orientation certification is valid for 2 year(s) and must be renewed for projects that will carry over beyond the 2 year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.
stp-107-034 (20130615)

8. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.
stp-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 1003-10-84
The following utility companies have facilities within the project area.

Alliant Energy (Electric and Gas) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Dean Copp, 1428 Wolcott St., Beloit, WI 53511, (608) 364-6431, e-mail: deancopp@alliantenergy.com.

AT&T Wisconsin (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703, (608) 252-2385: e-mail: ca2624@att.com.

CenturyLink (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Tim Kroeze, 201 Stark Street, Randolph, WI 53956, (920) 326-2224, e-mail: tim.kroeze@centurylink.com.

Windstream (McLeod USA) (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Nathan Becker, 13935 Bishops Drive, Brookfield, WI 53005, (262) 792-7938, e-mail: Nathan.becker@windstream.com.

Wisconsin Independent Network, LLC (WIN) (Communication) – has facilities within the project limits. No conflicts are anticipated. An abandoned underground facility (old duct) exists along the north side of CTH O, just north of the existing structure columns.

The field contact is Jim Birkenheier, W207 S. 8222 Hillendale Drive, Muskego, WI 53150, (715) 838-4007, e-mail: jbirkenheier@wins.net.

Project 1005-10-76
Alliant Energy (Electric) – The existing electric facility along Randolph Rd will remain in place and will be exposed during the placement of storm sewer.

The existing electric facility along the south side of Milwaukee Street, near Station 51+00'MK' will be shifted and lowered. No conflicts are anticipated. This work will occur prior to roadway construction.

The existing electric facility along Palmer Drive near Station 23+50'PD' will be relocated during construction. Contact Wisconsin Power & Light Company (Alliant Energy) 14 days prior to beginning work. This work is anticipated to take one day to complete.

The existing electric facility along Palmer Drive near Station 27+10'PD' will be relocated during construction. Contact Wisconsin Power & Light Company (Alliant Energy) 14 days prior to beginning work. This work is anticipated to take one day to complete.

The existing overhead facility that crosses IH 39/90 south of Mount Zion Avenue will be converted to an underground facility and placed under the eastbound lane of Mount Zion Avenue. One existing anchor will remain in place (Station 862+01, 92'). All other anchors will be removed. Wisconsin Power & Light Company (Alliant Energy) will need to be notified when the electric service to the DOT meter at Station 863+18'SB', LT needs to be retired. This work will occur prior to roadway construction.

The existing poles near the existing right of way to the east of IH 39/90 near Stations 800+25 and 801+75 will be removed and replaced with poles at Stations 800+07 and 802+00. Contact Wisconsin Power & Light Company (Alliant Energy) 14 days prior to beginning work and seven days prior to beginning work to provide a representative. Coordination with Wisconsin Power & Light Company (Alliant Energy) following the clearing and grubbing stage in this area will need to occur in order to create access to remove and replace the poles. This work is anticipated to take two days to complete.

Any time that construction activities expose Wisconsin Power & Light Company (Alliant Energy) cables or pipes, Wisconsin Power & Light Company (Alliant Energy) must be notified 14 days prior to beginning work and 72 hours prior to beginning work and a watchdog will be required, unless noted otherwise in the text above. No facilities can be left exposed overnight.

The field contact is Dean Copp, 1428 Wolcott St., Beloit, WI 53511, (608) 364-6431, e-mail: deancopp@alliantenergy.com.

Alliant Energy (Gas) – The existing gas main along Randolph Rd will remain in place and will be exposed during the placement of storm sewer.

The existing gas main along Mount Zion Avenue will be discontinued and a new main will be placed to the north of this existing line during construction. At approximately Station 67+25'MZ', RT, caution will need to be taken due to the close proximity of the proposed storm sewer. Abrasion barrier will be placed between the proposed gas main and proposed storm sewer once the line crossing is exposed. This work will occur prior to roadway construction.

The existing gas main along the south side of Milwaukee Street, near Station 51+50'MK' will be lowered. No conflicts are anticipated. This work will occur prior to roadway construction.

The existing gas main along Ruger Avenue will be discontinued and a new main will be placed to the north of this existing line during construction. It is not anticipated that the line be conflict with the proposed culvert crossing near Station 47+30'RU'. Expose the gas

facility prior to being work to determine if the gas facility is in conflict. This work will occur prior to roadway construction.

Any time that construction activities expose Wisconsin Power & Light Company (Alliant Energy) cables or pipes, Wisconsin Power & Light Company (Alliant Energy) must be notified 14 days prior to beginning work and seventy-two hours prior to beginning work and a watchdog will be required, unless noted otherwise in the text above. No facilities can be left exposed overnight. Prior to backfilling around any steel gas main that has been exposed, Wisconsin Power & Light Company (Alliant Energy) must be notified to provide a visual inspection.

The field contact is Dean Copp, 1428 Wolcott St., Beloit, WI 53511, (608) 364-6431, e-mail: deancopp@alliantenergy.com.

ANR Pipeline Company (Gas) – The existing gas mains crossing IH 39/90 at approximately Station 889+00 will be lowered. This work will be completed before construction. No conflicts are anticipated. The following procedures are to be followed:

No ground disturbance shall be made within the TransCanada right of way or within 25 feet, measured at right angles, of our pipeline(s) except in the presence of a company representative.

Notice of at least 72 hours in advance of construction must be provided.

TransCanada will arrange for a representative to be on site when work is occurring on or near the Right of Way area, or within 25-feet of the pipelines. After hours call (800) 447-8066.

The field contact is Ike Wille, 6827 Consolidated School Road, Janesville, WI 53019, (608) 373-6941 or (920) 375-0485, e-mail: eric_wille@transcanada.com.

ATC (Electric) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Mike Olsen, 801 O'Keefe Road, P.O. Box 6113, De Pere, WI 54115-6113, (902) 338-6582: e-mail: molsen@atcllc.com.

AT&T Wisconsin (Telephone) – The existing facility along Palmer Drive will be relocated to the south within the right of way crossing of IH 39/90 at Station 777+50. It is required that when fence is placed at approximately Station 24+31'PD' RT and Station 27+38'PD' RT, no post is driven at those line crossing locations.

The pole and pedestal at Station 35+57'BK', 33' LT will be discontinued. A line will be bored from the existing box at Station 798+50 155' RT to the north to a proposed manhole on Ruger Avenue approximately 800'. The center of the proposed manhole (15'x6'x7') at Ruger Avenue will be placed at approximately Station 47+70'RU', 24' RT. Proposed 9-4"

PVC conduit will be placed from 47+70'RU', 24' RT to the existing manhole at Station 43+75 'RU',23' RT. Prior to placing the new manhole on the east side of the highway, AT&T requests that the pole on Ruger Avenue at Station 47+71'RU', 30.37' RT be shifted to the back of the sidewalk in order to shift the existing conduit into the new manhole location. This work will take approximately 10 days to complete The splicing work will take approximately 30 days to complete.

At Station 815+40, the existing line will be lowered prior to construction.

This work will be completed before construction. No conflicts are anticipated.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703, (608) 252-2385: e-mail: ca2624@att.com.

Charter Communications (Fiber) – The existing facility along the NB IH 39/90 east right of way will be discontinued from approximately Station 800+00 to Station 806+00. New lines will be placed from the existing pedestal box along the rear yards of houses along Canterbury Lane within the existing utility easement to the existing pedestal box along the east right of way at approximately Station 783+25. From this location, new lines will be placed to the north within the existing utility easement to connect to the existing pedestal box at Station 798+50.

The existing facility along the south right of way at Ruger Avenue at Station 45+95'RU' RT will be discontinued. A new line will be installed beyond the limits of the project.

The existing facility along the south right of way at Milwaukee Street from Station 50+00'MK' to Station 56+50'MK' will be discontinued. A new line will be installed beyond the limits of the project.

The existing facility along the west side of Green Valley Drive at the intersection with Randolph Rd will stay in place. Coordination with the contractor to work around the proposed storm sewer is required. Contact Charter one week prior to beginning work.

This work will be completed before construction. No conflicts are anticipated.

The field contact is Randy Steurer, 1348 Plainfield Avenue, Janesville, WI 53545, (608) 373-7544 or (608) 209-3194: e-mail: randy.steurer@charter.com.

City of Janesville (Lighting, Sanitary Sewer, and Watermain) has facilities within the project area. Adjustments to lighting, sanitary sewer and watermain are included in this project.

The field contact is Dennis Ryan, 18 N. Jackson Street, P.O. Box 5005, Janesville, WI 53547-5005, (608) 755-3171 or (608) 289-2146: e-mail: ryand@ci.janesville.wi.us.

McLeod USA Telecommunications Services (Fiber) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Nathan Becker, 13935 Bishops Drive, Brookfield, WI 53005, (262) 792-7938: e-mail: nathan.becker@windstream.com

Project 1005-11-71

Alliant Energy (Electric) – The existing electric facility crossing the Park & Ride access road near Station 20+05'RPR' will be lowered. No conflicts are anticipated. This work will occur prior to roadway construction.

Any time that construction activities expose Wisconsin Power & Light Company (Alliant Energy) cables or pipes, Wisconsin Power & Light Company (Alliant Energy) must be notified 14 days prior to beginning work and seventy-two hours prior to beginning work and a watchdog will be required, unless noted otherwise in the text above. No facilities can be left exposed overnight.

The field contact is Dean Copp, 1428 Wolcott St., Beloit, WI 53511, (608) 364-6431, e-mail: deancopp@alliantenergy.com.

Alliant Energy (Gas) – The existing gas main along Midland Court at the location of the proposed intersection with the Park & Ride will be lowered. This work will occur prior to roadway construction.

Any time that construction activities expose Wisconsin Power & Light Company (Alliant Energy) cables or pipes, Wisconsin Power & Light Company (Alliant Energy) must be notified 14 days prior to beginning work (good faith notice, per Trans 220) and seventy-two hours prior to beginning work and a watchdog will be required, unless noted otherwise in the text above. No facilities can be left exposed overnight. Prior to backfilling around any steel gas main that has been exposed, Wisconsin Power & Light Company (Alliant Energy) must be notified to provide a visual inspection.

The field contact is Dean Copp, 1428 Wolcott St., Beloit, WI 53511, (608) 364-6431, e-mail: deancopp@alliantenergy.com.

AT&T Wisconsin (Telephone) – The existing facility along Midland Court at the location of the proposed intersection with the Park & Ride will be lowered.

This work will be completed before construction. No conflicts are anticipated.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703, (608) 252-2385: e-mail: ca2624@att.com.

Charter Communications (Fiber) – The existing facility along Midland Court at the location of the proposed intersection with the Park & Ride will be discontinued. A new line will be spliced at the southwest corner of Midland Road and Midland Court and will

continue to the north, across Midland Court. The new line will then cross back to the west side of Midland Court and will be spliced into the existing pedestal at the south parcel line of the Baker Tilly building.

This work will be completed before construction. No conflicts are anticipated.

The field contact is Randy Steurer, 1348 Plainfield Avenue, Janesville, WI 53545, (608) 373-7544 or (608) 209-3194: e-mail: randy.steurer@charter.com.

City of Janesville (Watermain) has facilities within the project area. Adjustments to lighting, sanitary sewer and watermain are included in this project.

The field contact is Dennis Ryan, 18 N. Jackson Street, P.O. Box 5005, Janesville, WI 53547-5005, (608) 755-3171 or (608) 289-2146: e-mail: ryand@ci.janesville.wi.us.

9. Referenced Construction Specifications.

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

Conform to the referenced construction specifications for the following:

Adjusting Water Valve Boxes, Item SPV.0060.651
Adjusting Sanitary Manholes, Item SPV.0060.652
Corporation Stop, 1-Inch, Item SPV.0060.653
Curb Stop and Box, 1-inch Service, Item SPV.0060.654
Water Service Lateral, 1-Inch, Item SPV.0090.650

10. Other Contracts.

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 1003-10-76/81
These projects involve the reconstruction of IH 39/90 from Hart Road to Avalon Road. Coordination with these projects will be required for traffic control staging.

Project 1003-11-72, 1005-11-70 and 1007-11-83
These projects involve placing landscape plantings along IH 39/90 from Stateline Road to the Union Pacific Railroad. Coordination with these projects will be required for the placement of landscape plantings.

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 1005-10-77
This project involves the reconstruction of IH 39/90 from USH 14 to Kennedy Road. Coordination with this project will be required for traffic control staging.

11. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

The Spring Brook is classified as a navigable waterway.
stp-107-060 (20150630)

12. Environmental Protection, Treatment of Water Adjacent to Waterways.

Spoil material shall be stockpiled on uplands an adequate distance from a stream, wetland, and/or any open water created by excavation. Filter fabric silt fence shall be installed between spoil material and the stream or wetland, and between the entire disturbed area and the waterway.

If dewatering is required for any reason, the water must be pumped into a properly sized and constructed dewatering basin before the clean/filtered water is allowed to enter any waterway or wetland. The "clean/filtered" water must be free of suspended solids and contaminants. A properly designed and constructed dewatering basin will take into consideration the amount of space for construction, desired pumping speed, number/size of pumps likely to be used, and the sedimentation rate of soils to be encountered. See DNR Technical Standard 1061 for method selection by soil type.

13. 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 stormwater runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

Detail each construction phase per year; include plans for staging large fills and detailed plans for placing temporary and permanent erosion control items to provide for winterization of the project.

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.
(5/14/2013)

14. Information to Bidders, U.S. Army Corps of engineers Section 404 Permit.

The department has obtained a U.S. Army Corps of engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Jennifer Grimes at (608) 884-1147, Jennifer.Grimes@dot.wi.gov.
stp-107-054 (20080901)

15. Erosion Control Structures.

Within seven calendar days after the commencement of work on the bridge superstructure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. These devices shall be in place in the area under the bridge and on both sides of the roadway, from the waterway to a point 100-feet behind the backwall of the abutment. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as directed by the engineer. Prior to initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.
stp-107-070 (20030820)

16. 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.
stp-108-060 (20141107)

17. 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.

Workshop	Timeframe
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 & 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) & Submittals workshop will have two primary topics outlined below:

<u>Cost Reduction Incentives</u>

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, submittal reviews, and material fabrications and deliveries. 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, Fabrication, and Delivery Dates
   - 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. Submittal schedule data shall be incorporated into CPM progress schedule to reflect submittal preparation durations and dates, submittal approval durations and dates, and material fabrication periods with forecasted delivery dates. Reference Baseline CPM Progress Schedule in these special provisions.

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 anticipated fabrication and delivery durations for long lead material procurements, 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.

18. 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)

stp-105-005 (20151210)

19. Municipality Acceptance of Sanitary Sewer and Water Main Construction.

Both the department and the City of Janesville personnel will inspect construction of sanitary sewer and water main under this contract. However, approval of testing and acceptance of the sanitary sewer and water main construction will be by the City of Janesville.

20. Notice to Contractor – Construction Safety.

Add the following to standard spec 107:

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 (OECP).

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 & 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 (OECP) 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.

Work near American Transmission Company (ATC) 69 kV, 138 kV, and 345 kV Overhead Electric Lines

WisDOT is aware of possible induced voltage on metal objects from overhead 69 kV, 138 kV, and 345 kV electric lines. WisDOT staff are utilizing personal protective equipment (PPE) in the form of insulated gloves when inspecting or working on metal objects in the vicinity of these lines. Please use PPE according to your company policies and OSHA requirements. Consult the current version of the ATC guidance document "Induced Voltage and Nuisance Shocks" (ATC, 2013) for best practices to prevent nuisance shocks when working around these overhead lines.

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]

i. Emergency escape procedures and emergency escape route assignments
ii. Procedures to be followed by employees who remain to operate critical equipment before they evacuate
iii. Procedures to account for all employees after emergency evacuation has been completed
iv. 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.

v. The preferred means of reporting fires and other emergencies
vi. Prime contractor's alarm system
vii. 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]

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

Structures B-53-229/230 (CTH O)
John Roelke, License Number AII-119523, inspected the referenced structures 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 Southwest Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

Structures B-53-61/62 (Palmer Drive), B-53-63/64 (Spring Brook), B-53-214/215 (Milwaukee Street), B-53-59/60 (Mt. Zion Avenue)
John Roelke, License Number AII-119523, inspected the referenced structures for asbestos on June 5, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT Southwest Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

Structures B-53-29/30 (Ruger Avenue)
John Roelke, License Number AII-119523, inspected the referenced structures 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 Southwest Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at

least 10 working days prior to beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Jennifer Grimes, WisDOT Southwest Region, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147 and DOT BTS-ESS attn: Hazardous Materials Specialist PO Box 7965, Madison, WI. 53707-7965 and to the engineer. In addition, comply with all local or municipal asbestos requirements.

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

1003-10-84

- Site Name: B-53-229, IH 90 eastbound over WSOR RR and CTH O
- Site Address: 0.6 miles east of STH 11
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 13 years old. This structure was constructed in 2003
- Area: 16,990 SF of deck

- Site Name: B-53-230, IH 39 northbound/90 westbound over WSOR RR and CTH O
- Site Address: 7.4 miles west of junction CTH S
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 12 years old. This structure was constructed in 2004
- Area: 16,598 SF of deck

1005-10-76

- Site Name: B-53-29, IH 39/90 southbound over Ruger Avenue
- Site Address: Latitude 42°41’06”N Longitude 88°59’02”W
- Section 32 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2003.
- Area: 7620 SF of deck

- Site Name: B-53-30, IH 39/90 northbound over Ruger Avenue
- Site Address: Latitude 42°41’06”N Longitude 88°59’01”W
- Section 32 Town 3N Range 13E
- City of Janesville, Rock County

- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2003.
- Area: 5092 SF of deck

- Site Name: B-53-59, IH 39/90 southbound over Mt. Zion Avenue
- Site Address: Latitude 42°42'01"N Longitude 88°59'03"W
- Section 29 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2003.
- Area: 7358 SF of deck

- Site Name: B-53-60, IH 39/90 northbound over Mt. Zion Avenue
- Site Address: Latitude 42°42'01"N Longitude 88°59'02"W
- Section 29 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2004.
- Area: 6656 SF of deck

- Site Name: B-53-61, IH 39/90 southbound over Palmer Drive
- Site Address: Latitude 42°40'39"N Longitude 88°59'02"W
- Section 32 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2003.
- Area: 7618 SF of deck

- Site Name: B-53-62, IH 39/90 northbound over Palmer Drive
- Site Address: Latitude 42°40’39”N Longitude 88°59’01”W
- Section 32 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131 Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2004.
- Area: 6891 SF of deck

- Site Name: B-53-63, IH 39/90 southbound over Spring Brook
- Site Address: Latitude 42°40’59”N Longitude 88°59’02”W
- Section 32 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2003.
- Area: 7464 SF of deck

- Site Name: B-53-64, IH 39/90 northbound over Spring Brook
- Site Address: Latitude 42°40’59”N Longitude 88°59’01”W
- Section 32 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1959 with a concrete overlay in 1986 and a widening in 2004.
- Area: 6773 SF of deck

- Site Name: B-53-214, IH 39/90 southbound over Milwaukee Street
- Site Address: Latitude 42°41’48”N Longitude 88°59’03”W
- Section 29 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 13 years old. This structure was constructed in 2003.

- Area: 9748 SF of deck

- Site Name: B-53-215, IH 39/90 northbound over Milwaukee Street
- Site Address: Latitude 42°41'49"N Longitude 88°59'02"W
- Section 29 Town 3N Range 13E
- City of Janesville, Rock County
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 12 years old. This structure was constructed in 2004.
- Area: 8775 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20120615)

22. Notice to Contractor, Creosote Bridge Timbers.

The Wisconsin Department of Natural Resources requires proper disposal of the creosote timbers that will result from the removal of the existing Structures B-53-61, B-53-62, B-53-63, and B-53-64. Proper creosote timber disposal includes, but is not limited to, landfill disposal or use as landscape timbers. Under no circumstances should this material be burned or buried on site. Beneficial reuse of this material is an option and the contractor can contact Randy Maass (608) 275-3224 at the WDNR South Central Region Headquarters for additional information on disposal options.

This work will be considered incidental to Removing Old Structure.

23. 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 shall 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 seven calendar days in advance of the contractor's anticipated implementation.

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

- Anna Varney, FHWA, Anna.Varney@dot.gov
- Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov
- Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

(10/3/2016)

24. Notice to Contractor – New or Revised Temporary Construction Access to I-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 I-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 I-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 I-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 I-39/90. The request will be reviewed, and if warranted, concurred with designated I-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 shall correspond with the following FHWA and department staff for concurrence:

- Anna Varney, FHWA, Anna.Varney@dot.gov
- Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov
- Jeff Gustafson, I-39 CMT Traffic, 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.
(10/3/2016)

25. Notice to Contractor - Airport Operating Restrictions - Site Specific.

The Federal Aviation Administration (FAA) has height restrictions surrounding select airports. The department has obtained Temporary Determination of No Hazard to Air Navigation for all temporary structure (i.e. crane) erections associated with bridge, noise barrier, and retaining wall construction at the following location. A copy of the determination can be obtained through the engineer.

Project ID	Structure	Location	Latitude	Longitude	Heights	Issue Date	Expiration Date	Aeronautical Study No.
1003-10-84	Crane (Temporary for S-53-105)	I-39 SB	42-38-23.38 N	88-58-59.67 W	90 feet AGL 845 feet AMSL	02/02/2017	08/02/2018	2017-AGL-499-OE
1003-10-84	Crane (Temporary for S-53-106)	I-39 SB	42-38-49.19 N	88-59-0.34 W	85 feet AGL 852 feet AMSL	02/02/2017	08/02/2018	2017-AGL-500-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 NB	42-38-56.67 N	88-58-58.40 W	40 feet AGL 848 feet AMSL	02/02/2017	08/02/2018	2017-AGL-503-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 NB	42-39-4.74 N	88-58-58.52 W	45 feet AGL 849 feet AMSL	02/02/2017	08/02/2018	2017-AGL-504-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 SB	42-39-5.66 N	88-59-0.71 W	40 feet AGL 851 feet AMSL	02/02/2017	08/02/2018	2017-AGL-505-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 NB	42-39-12.79 N	88-58-58.59 W	40 feet AGL 848 feet AMSL	02/02/2017	08/02/2018	2017-AGL-506-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 NB	42-39-20.53 N	88-58-58.93 W	35 feet AGL 850 feet AMSL	02/02/2017	08/02/2018	2017-AGL-507-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 SB	42-39-21.90 N	88-59-1.06 W	35 feet AGL 852 feet AMSL	02/02/2017	08/02/2018	2017-AGL-508-OE
1003-10-84	Bucket Truck (Type 1 sign)	I-39 NB	42-39-28.25 N	88-58-58.89 W	35 feet AGL 850 feet AMSL	02/02/2017	08/02/2018	2017-AGL-509-OE
1003-10-84	Crane (Temporary for S-53-107)	I-39 SB	42-39-37.15 N	88-59-1.36 W	90 feet AGL 852 feet AMSL	02/02/2017	08/02/2018	2017-AGL-501-OE
1003-10-84	Crane (Temporary for S-53-108)	I-39 NB	42-39-52.53 N	88-58-59.38 W	85 feet AGL 842 feet AMSL	02/02/2017	08/02/2018	2017-AGL-502-OE
1003-10-84	Crane (Temporary for B-53-229/230)	I-39 CTH O/WSOR Overpass	42-39-55.23 N	88-59-00.19 W	160 feet AGL 845 feet AMSL	02/02/2017	08/02/2018	2017-AGL-1889-OE
1005-10-76	Crane (Temporary for B-53-331/330)	I-39 Palmer Drive Crossing	42-40-38 N NAD 83	88-59-00 W	160 feet AGL 1002 feet AMSL	11/29/2016	05/29/2018	2016-AGL-15355-OE

1005-10-76	Crane (Temporary for B-53-333/332)	I-39 Spring Brook Crossing	42-40-59 N NAD 83	88-59-02 W	160 feet AGL 975 feet AMSL	11/29/2016	05/29/2018	2016-AGL-15360-OE
1005-10-76	Crane (Temporary for B-53-335)	I-39 NB Ruger Avenue Crossing	42-41-07 N NAD 83	88-59-01 W	160 feet AGL 984 feet AMSL	11/29/2016	05/29/2018	2016-AGL-15939-OE
1005-10-76	Crane (Temporary for B-53-334)	I-39 SB Ruger Avenue Crossing	42-41-07 N NAD 83	88-59-02 W	160 feet AGL 984 feet AMSL	11/29/2016	05/29/2018	2016-AGL-15940-OE
1005-10-76	Crane (Temporary for B-53-215)	I-39 NB Milwaukee Street Crossing	42-41-48 N NAD 83	88-59-02 W	160 feet AGL 1034 feet AMSL	11/29/2016	05/29/2018	2016-AGL-15941-OE
1005-10-76	Crane (Temporary for B-53-336)	I-39 SB Mt. Zion Avenue Crossing	42-42-02 N NAD 83	88-59-03 W	160 feet AGL 1026 feet AMSL	11/29/2016	05/29/2018	2016-AGL-15944-OE

As a condition of the Determinations, cranes shall be marked and/or lit according to FAA Advisory Circular 70/7460-1 L Change 1.

For all other locations not listed under the lighting requirements above, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, the contractor is encouraged to install and maintain it according to FAA Advisory Circular 70/7460-1 L Change 1.

Lower any temporary structure (i.e. crane) to the ground when not in use and also during the hours between sunset and sunrise.

Notify the manager of JVL Airport at (608) 757-5768 at least three business days prior to any temporary structure being erected and again when the temporary structure is removed from the site.

It is required that the manager of JVL Tower at (608) 758-1723 be notified at least five business days prior to any temporary structure being erected and again when any temporary structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

Any failure or malfunction that lasts more than 30 minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867, so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Any height of a temporary structure exceeding above ground level (AGL) or above mean sea level (AMSL), as listed in the temporary determination, will result in a substantial adverse effect and will warrant a Determination of Hazard to Air Navigation.

The determination expires unless extended, revised or terminated by the issuing FAA office. If an extension is needed, the contractor must request an extension to the effective period of the determination. The request must be postmarked or delivered, to the office below, at least 30 days prior to the expiration date:

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

For questions on extensions to the effective period of the determinations, contact the FAA office at (847) 294-7575 and reference the Aeronautical Study Number.

Any changes in coordinates and/or heights will void the determination. Any future construction or alteration, including increase to height, requires a separate notice to the FAA.

Determinations include temporary construction equipment such as cranes, derricks, and other equipment, which may be used during actual construction. Equipment shall not exceed the overall heights as indicated in the determination. The contractor must request separate notice to the FAA if equipment has a height greater than the determination.

The contractor must copy the engineer on any correspondence with the FAA.

A determination concerns the effect of temporary structures on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body. (1/5/2015)

26. Design Model Data.

The department will provide design model data for projects 1003-10-84 and 1005-10-76. The data provided is for the bidder's general knowledge only and is not a part of the contract. The department assumes no responsibility for discrepancies between the data provided and the contract documents.

The department will provide the following design model data before the project let date, files are available for download at the following location:

http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/prelim-plan-sw.aspx

The pre-let design model data consists of the following:

1. Field Control data, LandXML v1.2 file
2. Reference line alignments and proposed profile information, LandXML v1.2 file

3. Surface models in LandXML v1.2, and in AutoCAD DWG files containing 3D face objects representing surface TIN triangles of surface models as follows:
    a. Existing ground surface
    b. Ultimate top surface
        i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
        ii. Top of shoulder and top of pavement within the roadway subgrade.
    c. Ultimate datum surface
        i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
        ii. Subgrade surface within the roadway subgrade shoulder points.
    d. Ultimate top of subbase surface
    e. Ultimate base course surface
4. Right of Way in LandXML v1.2 files right of way and easement line as alignments.
5. Slope stake report
6. Surface Model outer boundaries, 3D in AutoCAD DWG file
7. Superelevation transition information in a comma separated value (csv) text file.
8. Proposed roadway features, 2D in AutoCAD DWG files
9. Existing topographic mapping, 2D in AutoCAD DWG files
10. Metadata information

Upon request, the department will provide the following design model data within 4 weeks of the request.

The post-let design model data consists of the following:

1. Surface models in LandXML v1.2, and in AutoCAD DWG files containing 3D face objects representing surface TIN triangles of surface models as follows:
    a. Ultimate pavement surface, post let delivery upon request only
2. All proposed surface model longitudinal breaklines, 3D in AutoCAD DWG file.

(3/29/2017)

27. 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

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

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

a) 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.

b) 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.

2. Regulated items.

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

a) The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.
b) Ash trees.
c) Ash limbs, branches, and roots.
d) Ash logs, slabs or untreated lumber with bark attached.
e) Cut firewood of all non-coniferous species.

f) Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.

g) 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

1) 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.
2) May be buried on site within the right-of-way according to standard spec 201.3 (14).
3) 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).
4) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).

(8/18/2014)

28. Debris Containment Structure B-53-0061, Item 203.0225.S.001; B-53-0062, Item 203.0225.S.002; B-53-229, Item 203.0225.S.003; B-53-230, Item 203.0025.S.004; B-53-0029, Item 203.0225.S.005; B-53-0030, Item 203.0225.S.006; B-53-0214, Item 203.0225.S.007; B-53-0215, Item 203.0225.S.008; B-53-0059, Item 203.0225.S.009; B-53-0060, Item 203.0225.S.010.

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 CTH O & Wisconsin

& Southern Railroad, Palmer Drive, Ruger Avenue, Milwaukee Street and Mt. Zion Avenue 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 removal, 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:

1. Emmanuel Yartey, P.E.
   WisDOT I-39/90 Construction Manager
   111 Interstate Blvd.
   Edgerton, WI 53534-9399
   (608) 884-7131
   emmanuel.yartey@dot.wi.gov
2. Roger Schaalma
   Wisconsin and Southern Railroad Company
   1890 East Johnson Street
   Madison, WI 53704
   (608) 620-2044 ext. 4201
   rschaalma@watcocompanies.com

D Measurement

The department will measure Debris Containment Structure (structure) 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
203.0225.S.001	Debris Containment Structure B-53-0061	LS
203.0225.S.002	Debris Containment Structure B-53-0062	LS
203.0225.S.003	Debris Containment Structure B-53-229	LS
203.0225.S.004	Debris Containment Structure B-53-230	LS
203.0225.S.005	Debris Containment Structure B-53-0029	LS
203.0225.S.006	Debris Containment Structure B-53-0030	LS
203.0225.S.007	Debris Containment Structure B-53-0214	LS
203.0225.S.008	Debris Containment Structure B-53-0215	LS
203.0225.S.009	Debris Containment Structure B-53-0059	LS
203.0225.S.010	Debris Containment Structure B-53-0060	LS

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

stp-203-010 (20080902)

29. Removing Old Structure Over Waterway Station 799+63'SB', Item 203.0500.S.001; Station 799+63, Item 203.0500.S.002.

Conform to standard spec 203 as modified in this special provision.

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands
203.3.6.2 Removing Old Structure Over Waterway

(1) Remove the existing Structure B-53-63 and B-53-64 over the Spring Brook conforming to the contractor's approved structure removal and clean-up plan. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. Remove large pieces of the structure within 36 hours. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:
   1. Methods and schedule to remove the structure.
   2. Methods to control potentially harmful environmental impacts.
   3. Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
   4. Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

Add the following Removing Old Structure bid item to standard spec 203.5.1:

ITEM NUMBER	DESCRIPTION	UNIT
203.0500.S.001	Removing Old Structure Over Waterway Station 799+63'SB'	LS
203.0500.S.002	Removing Old Structure Over Waterway Station 799+63	LS

stp-203-015 (20090105)

30. Abandoning Sewer, Item 204.0291.S.

A Description
This special provision describes abandoning existing sewer by filling it with cellular concrete according to the pertinent requirements of standard spec 204 and standard spec 501, as shown in the plans, and as hereinafter provided.

B Materials
Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.5.3 Provide water meeting the requirements of standard spec 501.2.4.

C Construction
Fill the abandoned sewer pipe with cellular concrete as directed by the engineer. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

D Measurement
The department will measure Abandoning Sewer in volume by the cubic yard according to standard spec 109.1.3.

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.
stp-204-050 (20080902)

31. Removing Crash Cushion, Item 204.9060.S.001.

A Description
This special provision describes removing crash cushions according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Crash Cushion as each individual crash cushion, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Crash Cushion	Each

stp-204-025 (20150630)

32. Removing Apron Endwalls, Item 204.9060.S.005.

A Description
This special provision describes removing apron endwalls according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Apron Endwalls in each, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.005	Removing Apron Endwalls	Each

stp-204-025 (20150630)

33. Removing Electrical Equipment, Item 204.9105.S.001.

A Description
This special provision describes removing electrical equipment according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B Materials
Provide all tools and equipment necessary to remove the electrical equipment. Electrical equipment includes all existing electrical equipment upstream of the pole-mounted cabinet's electrical service breaker disconnect box, including but not limited to, wood poles, overhead wire, electrical service breaker disconnect box, and electrical service meter socket.

C Construction
Carefully remove the electrical equipment at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement
The department will measure Removing Electrical Equipment, completed according to the contract and accepted, as a single complete lump sum unit of work.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.001	Removing Electrical Equipment	LS

34. Removing Concrete Flumes, Item 204.9180.S.001.

A Description
This special provision describes removing concrete flumes according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Concrete Flumes in square yards, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9180.S.001	Removing Concrete Flumes	SY

stp-204-025 (20150630)

35. Roadway Excavation.

Excavation of frozen ground directed by the engineer to maintain work as scheduled will be paid for as common excavation. Backfilling of these excavated areas will be paid for as either Roadway Embankment or Select Borrow as directed by the engineer. This does not relieve the contractor of their responsibility to protect the subgrade from further freezing of the soils prior to or after this excavation or the timely backfilling of any areas excavated due to frozen conditions.

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.
(6/29/2015)

36. 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.

Supplement standard spec 208.4 with the following:

The department will not measure embankment material from its source.

Supplement standard spec 208.5 with the following:

The department will not pay directly for work specified under this section pertaining to Borrow. This work is included in the Roadway Embankment bid item.
(5/31/2016)

37. Select Borrow, Item 208.1100.

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

Materials
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 15% by weight passing the No. 200 sieve.

As a contractor's option, the department will allow the use of select crushed material for select borrow. The material shall conform to the requirements of standard spec 312, and will be measured and paid for as Select Borrow.

Measurement
Replace standard spec 208.4 with the following:

The department will measure select borrow 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 select borrow 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 select borrow material beyond the limits of the required slopes as shown on the plans.
(11/29/2016)

38. Backfill Coarse Aggregate Size No. 1, Item 209.0300.S.001.

A Description
This special provision describes furnishing and placing coarse aggregate backfill as shown on the plans and as hereinafter provided.

B Materials
Provide clean concrete aggregate graded according to the requirements as specified under standard spec 501.2.5.4.5. The soundness and wear requirements are deleted from this material.

C Construction
Construct the coarse aggregates according to standard spec 209.3.

D Measurement
The department will measure Backfill Coarse Aggregate Size No. 1 in volume by the cubic yard in the vehicle.

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

ITEM NUMBER	DESCRIPTION	UNIT
209.0300.S.001	Backfill Coarse Aggregate Size No. 1	CY

Payment is full compensation for furnishing and installing the aggregate.
stp-209-030 (20161130)

39. 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 and paid for under the Aggregate Detours, 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://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

A.2 Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a contract 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:

A.2.1 Quality Control Plan

(1) Submit an abbreviated quality control plan consisting of the following:

1. Organizational chart including names, telephone numbers, current certification(s) with HTCP number(s) and expiration date(s), and roles and responsibilities of all persons involved in the quality control program for material under affected bid items.

A.2.2 Contractor Testing

(1)

Contract Quantity	Minimum Required Testing per source
≤ 6000 tons	One stockpile test prior to placement, and two production or one loadout test.
> 6000 tons and ≤ 9000 tons	One stockpile and Three placement tests[3] [4] [5]

[1] Submit production 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.

[2] If the actual quantity overruns 6,000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[3] If the actual quantity overruns 9000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.
[4] For 3-inch material or lift thickness of 3-inch or less, obtain samples at load-out.
[5] Divide the aggregate into uniformly sized sublots for testing

(2) Stockpile testing for concrete pavement recycled in place will be sampled on the first day of production.

(3) Until a four point running average is established, individual placement tests will be used for acceptance. 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) Material represented by a sublot 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.

A.2.3 Department Testing

(1) The department will perform testing as specified in B.8 except as follows:

- Department stockpile verification testing prior to placement is optional for contract quantities of 500 tons or less.

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:

Required Certification Level:	Sampling or Testing Roles:
Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling[1]
Aggregate Technician I (AGGTEC-I) Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

[1] 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://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx

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 one business day after obtaining a sample. 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 one business day after obtaining a sample. 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 placement tests, include only QC placement 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) Perform one stockpile test from each source prior to placement.

(3) Test gradation once per 3000 tons of material placed or fraction thereof. 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 or lift thickness of 3-inch or less 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.

(4) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

(5) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.

(6) 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.

(7) 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 two 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 four 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 four 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 two 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. Perform one stockpile test from each source prior to 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 or for a lift thickness of 3-inch or less, the department will collect samples 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 according to CMM 8-10.5.2 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.

stp-301-010 (20161130)

40. 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.
(1/5/2017) (SWR 305.01-09212015)

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

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	3 - 10 [1]

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

(1/5/2017) (SWR 305.02-08032016)

42. Rout and Seal, Item 415.6000.S.

A Description
This special provision describes routing, cleaning, drying, and sealing the longitudinal edge of pavement joints in new asphaltic pavement shoulders immediately adjacent to the edge of the concrete pavement. The work shall conform to the plan details and as hereinafter provided.

B Materials
Furnish material that conforms to the requirements of the Specifications for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements, ASTM Designation: D 6690, Type II, modified to require that the bond strength test be run at -20 degrees F. (The unmodified ASTM D 6690, Type II allows this test to be run at either 0 degrees F or -20 degrees F.)

Deliver each lot or batch of sealing compound to the jobsite in the manufacturer's original sealed container. Mark each container with the manufacturer's name, batch or lot number, and the safe heating temperature. Present the manufacturer's certification stating that the

compound meets the requirements of this specification. Prior to applying the sealant, furnish to the engineer a certificate of compliance and a copy of the manufacturer's recommendations on heating and applying the sealant.

C Construction

C.1 Equipment

Heat the sealing compound to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. If and when using the heating kettle on concrete or asphaltic pavement, properly insulate the heating kettle to ensure heat is not radiated to the pavement surface.

Make rout cuts in a single pass. Two-pass cutting will not be allowed. Use a self-propelled mechanical router capable of routing the bituminous pavement to provide a 1.0:1.0 depth to width ratio of all routed cracks. The router blade or blades shall be of such size and configuration to cut the desired joint reservoir in one pass. No spacers between blades shall be allowed unless the contractor can demonstrate to the engineer that the desired reservoir and rout cut can be obtained with them. Either wet or dry routing will be permitted provided the above conditions are met. Use a pressure distributor for applying sealing material through a hand-operated wand or nozzle according to sealant manufacturer's instructions.

C.2 Methods

Conduct the operation so that the routing, cleaning, and sealing are continuous operations. Traffic shall not be allowed to knead together or damage the routed joints. Rerout, if necessary, routed joints not sealed before traffic is allowed on the pavement when routing and sealing operations resume at no additional cost to the department. Do not perform rout cutting, cleaning, and sealing, within 48 hours of the placement of the shoulder's surface course.

Rout the longitudinal joint to a minimum width of ¾-inches and a minimum depth of ¾-inches. Use a power vacuum or equivalent to immediately remove any routing slurry, dirt, or deleterious matter adhering to the joint walls or remaining in the joint cavity, or both. Prior to sealing, dry the cleaned joints either by air-drying or by using a high capacity torch. Immediately prior to sealing, blow out the dried crack with a blast of compressed air, 80-psi minimum. Continue cleaning until the joint is dry, and until all dirt, dust, or deleterious matter is removed from the joint and adjacent pavement to the satisfaction of the engineer. If the air compressor produces dirt or other residue in the joint cavity, the contractor shall be required to clean the joint again.

If cleaning operations could cause damage to, or interfere with, traffic in adjacent lanes, or both, provide protective screening that is subject to the approval of the engineer to the cleaning operation.

Following cleaning, dry the routed joints and warm them with a hot air lance. Take care not to burn the pavement surface. Under no circumstances shall more than two minutes elapse between the time the hot air lance is used and the sealant is placed.

Provide positive temperature control and mechanical agitation. Do not heat the sealant to more than 20 degrees F below the safe heating temperature. The safe heating temperature can be obtained from the manufacturer's shipping container. Provide a direct connecting pressure type extruding device with nozzles shaped for insertion into the joint. Immediately remove sealant spilled on the surface of the pavement.

Seal the joints when the sealant material is at the pouring temperature recommended by the manufacturer. Fill the joint such that after cooling, the sealant is flush with the adjacent pavement surface. Do not overfill the joint; the engineer may allow a very slight overband. Sand shall not be spread on the sealed joints to allow for opening to traffic. Before opening to traffic, the sealant shall be tack free.

D Measurement
The department will measure Rout and Seal in length by the linear foot, completed according to the contract and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
415.6000.S	Rout and Seal	LF

Payment is full compensation for rout cutting; cleaning the joint; furnishing and installing all materials, including sealant.
stp-415-100 (20140630)

43. HMA Pavement Modification.

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

Replace the noted HMA mixture values in Table 460-2 under 460.2.7 with the following:

1. LA Wear (AASHTO T96) – LT, MT, HT, and SMA mixtures:
   - 100 revolutions – 13% loss maximum
   - 500 revolutions – 40% loss maximum

2. Soundness (AASHTO T104) (sodium sulfate) – LT, MT, HT, and SMA mixtures:
   - 9.0% loss maximum

3. Freeze/ Thaw (AASHTO T103) (specified counties) – LT, MT, HT, and SMA mixtures:
   - 12% loss maximum

Replace Note 3 at the end of Table 460-2 under 460.2.7 with the following:

[3] For No. 5 (9.5 mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 73 – 76%.

(07/13/2016)

44. 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 Comparison of Nuclear Gauges

B.3.2.1 Comparison 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 comparison process. The section does not have to be the same mix design.

(2) Compare the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the comparison 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/ft3. 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/ft3 and repeat comparison process from B.3.2.1 (2).

(5) Furnish one of the QC gauges passing the allowable comparison tolerances to perform density testing on the project.

B.3.2.2 Comparison Monitoring

(1) After performing the gauge comparison 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 comparison 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/ft3 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/ft3 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 sublot 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 sublot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate sublot for that partial quantity.

(5) Randomly select test locations for each sublot 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.

Lane Width	No. of Tests	Transverse Location
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 sublot 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 sublot and perform the number of random tests as specified in Table 2.

Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage	Minimum Number of Tests Required
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 sublot densities using the individual test results in each sublot.

(2) If all sublot 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 sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot 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 sublot 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 sublot 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 sublot. Testing in a previously accepted sublot 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 sublot 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 sublot and lot densities.

(6) If 2 consecutive sublot 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 sublot 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 sublot using the same testing requirements and frequencies as the QC tester.

(3) If the verification sublot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.

(4) If the verification sublot average is more than one percent below the specified target density, compare the QC and QV sublot averages. If the QV sublot average is within 1.0 lb/ft3 of the QC sublot average, use the QC tests for acceptance.

(5) If the first QV/QC sublot average comparison shows a difference of more than 1.0 lb/ft3 each tester will perform an additional set of tests within that sublot. Combine the additional tests with the original set of tests to compute a new sublot average for each tester. If the new QV and QC sublot averages compare to within 1.0 lb/ft3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft3 after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

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

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

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

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

B.7 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

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

E.3 Incentive for HMA Pavement Density

(1) The department will administer density incentives according to standard spec 460.5.2.3.

stp-460-020 (20161130)

45. Aggregates for 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) The department will sample and test aggregates as follows:

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
Lightweight Pieces[1]……	AASHTO T 113

[1] Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces by dividing the weight of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

Contact the engineer a minimum of 4 weeks prior to paving to collect a sample of the aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

(2) The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete pavement.

(3) 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.

(4) 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
Lightweight Pieces	5.0

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. (10/25/2016)

46. Concrete Pavement.

Modify standard spec 415.3.6 with the following:

415.3.6 Placing Concrete

Add the following as standard spec 415.3.6.4:

415.3.6.4 Concrete Protective Surface Treatment

(1) This specification applies to all sawed concrete joints on the IH 39/90 interstate mainline and ramps, also including sawed joints on concrete shoulders, and to all concrete placement methods. Treat sawed surfaces of transverse and longitudinal joints

with a silane joint sealant found on the department approved products list for Concrete Protective Surface Treatments. Prepare surface by pressure washing all saw slurry from sawed joints and allow to dry thoroughly prior to application of silane sealer. Apply the product directly to the interior of the sawed joint. Do not use the broadcast spray method of application.

(1/5/2017)

47. Optimized Aggregate Gradation and Concrete Mixtures.

Description

This special provision describes optimized aggregate gradation, optional optimized mixture designs, and associated additional requirements for class 1 concrete used in concrete pavements. Conform to standard specification part 7 and as follows:

Optimized Aggregate Gradation

A Job Mix Formula (JMF) contains all of the following:

1. Proportions for each aggregate fraction conforming to Table 1.

2. Individual gradations for each aggregate fraction.

3. Composite gradation of the combined aggregates including working ranges on each sieve in accordance with Table 2.

4. Submit the target JMF and aggregate production gradation test results to the engineer for review 10 business days before initial concrete placement.

TABLE 1 TARANTULA CURVE GRADATION BAND

SIEVE SIZES	PERCENT RETAINED
2 in.	0
1 1/2 in.	≤5
1 in.	<16
3/4 in.	<20
1/2 in.	4-20
3/8 in.	4-20
No. 4	4-20
No. 8[1]	<12
No. 16[1]	<12
No. 30[1] [2]	4-20
No. 50[2]	4-20
No. 100[2]	≤10
No. 200[2]	≤2.3

[1]Minimum of 15% retained on the sum of the #8, #16, and #30 sieves.
[2]Conform to 24-34% retained of fine sand on the #30-200 sieves.

TABLE 2 – JMF WORKING RANGE

SIEVE SIZES	WORKING RANGE[1] (PERCENT)
2 in.	**±5**
1 1/2 in.	**±5**
1 in.	**±5**
3/4 in.	**±5**
1/2 in.	**±5**
3/8 in.	**±5**
No. 4	**±5**
No. 8	**±4**
No. 16	**±4**
No. 30	**±4**
No. 50	**±3**
No. 100	**±2**
No. 200	**≤ 1.6**

[1] Working range limits of composite gradation based on moving average of 4 tests.

Test each component aggregate once per 1,500 cubic yards during concrete production. Take samples by one of the following sampling methods:

1. At the belt leading to the weigh hopper.
2. Working face of the stock piles at the concrete plant if approved by the engineer.

The department will take independent QV samples using the same sampling method the contractor uses for QC sampling. QV samples may be taken by the contractor's QC personnel if witnessed by the department's QV personnel. The department will split each QV sample and retain half for all dispute resolutions. 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.

If, during concrete production, the moving average of four for any sieve fall outside the allowable JMF working range do the following:

1. Notify the engineer of the test results within 1 business day from the time of sampling.
2. Make immediate adjustments to the JMF, within the limits specified in Table 3;
3. Review JMF adjustments with the engineer. Both the contractor and engineer will sign the adjusted JMF if the adjustments comply with Table 3.
4. If the moving average of four falls outside the adjusted allowable working range, stop production and provide a new mix design including JMF to the engineer.

TABLE 3 – ALLOWABLE JMF ADJUSTMENTS

SIEVE SIZES	ALLOWABLE ADJUSTMENT (PERCENT)
≥ No. 4	±5
No. 8 – No. 30	±4
No. 50	±3
No. 100	±2

Dispute Resolution
The department will resolve disputes as specified in standard spec 106.3.4.3.5 using QV split samples.

Sublot and Lot Size
A sublot consists of up to 1,500 cubic yards. A lot consists of two sublots.

Optimized Concrete Mixtures
The contractor may use a reduced cementitious content for concrete pavement placed if the contractor does the following:

1. Use an optimized aggregate gradation as defined in this special provision.
2. Conform to the additional testing requirements for flexural strength as specified in the contract special provisions.
3. Submit aggregate gradation result records no more than 2 years old when developing the mix design.
4. Determine the volume of voids in the optimized aggregates using ASTM C29.
5. Download and follow the instructions tab of the Optimized Gradation and Mix Design Spreadsheet located at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
6. Design an appropriate paste content based upon the Performance-based PCC Mix Design Guide located at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
7. Provide a minimum Vpaste/Vvoids of 1.25. (Paste/Void ratio equals the volume of paste divided by the volume of voids.).
8. Evaluate workability of trial batches by following section 6.8 of AASHTO Draft Performance engineered Concrete Pavement Mixtures Specifications located at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
9. Submit trial batch workability results when submitting the mix design.
10. Submit the CP Tech center computer spreadsheet concrete mix design to the engineer for review at least 3 business days before producing concrete.
11. Provide a minimum cement content of 520 pounds per cubic yard, except if using type I, IL, or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.
12. The contractor may use class C fly ash or grade 100 or 120 slag as a partial replacement for cement. For binary mixes use up to 30% fly ash or slag. For

ternary mixes use up to 30% fly ash plus slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.

13. See CMM 8-70.2.2.3 for additional guidance.

48. Ice Hot Weather Concreting, Item 501.1000.S.

Conform to standard spec 501.3.8.2 except the department will pay for ice at the contract unit price under the Ice Hot Weather Concreting bid item. This special provision only applies to work done under the following contract bid items:

Concrete Masonry Bridges	Concrete Masonry Retaining Walls
Concrete Masonry Bridges HES	Concrete Masonry Retaining Walls HES
Concrete Masonry Culverts	Concrete Masonry Endwalls
Concrete Masonry Culverts HES	Concrete Masonry Overlay Decks

High Performance Concrete (HPC) Masonry Structures

Replace standard spec 501.4 and 501.5 with the following:

501.4 Measurement

(1) The department will measure Ice Hot Weather Concreting by the pound, acceptably completed, measured only if the conditions prescribed in standard spec 501.3.8.2 are met.

501.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
501.1000.S	Ice Hot Weather Concreting	LB

(2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.

(3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; for preparing, transporting, storing, protecting and curing concrete; and for contractor requirements related to testing specified in standard spec 501.3.10.

(4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

stp-501-010 (20151210)

49. Expansion Device, B-53-0214 and B-53-0215.

A Description

This special provision describes furnishing and installing an expansion device in accordance to standard spec 502, as shown on the plans, and as hereinafter provided.

B Materials

The minimum thickness of the polychloroprene strip seal shall be ¼-inch for non-reinforced elastomeric glands and 1/8-inch for reinforced glands. Furnish the strip seal gland in lengths suitable for a continuous one-piece installation at each individual expansion joint location. Provide preformed polychloroprene strip seals that conform to the requirements ASTM D3542, and have the following physical properties:

Property Requirements	Value	Test Method
Tensile Strength, min.	2000 psi	ASTM D412
Elongation @ Break, min	250%	ASTM D412
Hardness, Type A, Durometer	60 ± 5 pts.	ASTM D2240
Compression Set, 70 hours @212˚F, max.	35%	D395 Method B Modified
Ozone Resistance, after 70 hrs. at 100˚F under 20% Strain with 100 pphm ozone	No Cracks	ASTM D1149 Method A
Mass Change in Oil 3 after 70 hr. 212˚F Mass Change, max.	45%	ASTM D471

Install the elastomeric strip seal gland with tools recommended by the manufacturer, and with a lubricant adhesive conforming to the requirements of ASTM D4070.

The manufacturer and model number shall be one of the following approved strip seal expansion device products:

	Model Number Strip Seal Gland Size*		
Manufacturer	**4-Inch**	**5-Inch**	**6-Inch**
D.S. Brown	SSA2-A2R-400	SSA2-A2R-XTRA	SSA2-A2R-XTRA
R.J. Watson	RJA-RJ400	RJA-RJ500	RJA-RJ600
Watson Bowman Acme	A-SE400	A-SE500	A-SE800
Commercial Fabricators	A-AS400	-----	-----

*Expansion device strip seal gland size requirement of 4", 5", and 6" shall be as shown on the plans.

Furnish manufacturer's certification for production of polychloroprene represented showing test results for the cured material supplied, and certifying that it meets all specified requirements.

The steel extrusion or retainer shall conform to ASTM designation A 709 grade 36 steel. After fabrication, steel shall be galvanized conforming to the requirements ASTM A123.

Manufacturer's certifications for adhesive and steel shall attest that the materials meet the specification requirements.
stp-502-020 (20110615)

50. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description

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

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

B Materials

B.1 General

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

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

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

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

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

B.2 Fabrication

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

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

B.3 Control of Material

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

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

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

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

C Construction

C.1 General

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

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

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

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

C.2 Splices

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

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new

lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

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

The department will measure the Bar Couplers Stainless bid items as each individual coupler acceptably completed.

E Payment

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

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

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

Payment for the Bar Couplers Stainless bid items is full compensation for providing couplers; including bar steel that is part of the coupler and not detailed in the plan; for threading reinforcing bars; for installing and coating the splice; and for supplying and testing 3 couplers.

stp-505-005 (20141107)

51. Preparation and Coating of Top Flanges B-53-0214, Item 517.0900.S.001; B-53-0215, Item 517.0900.S.002.

A Description

This special provision describes thoroughly cleaning and coating the top surface and edges of the top flanges, removing loose paint, rust, mill scale, dirt, oil, grease, or other foreign substances until the specified finish is obtained.

B (Vacant)

C Construction

For top flanges and edges that have no paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean the top surface and edges of the top flanges and paint them with one coat of an approved zinc rich primer. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-I) is not allowed.

For top flanges and edges that have paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean all areas of rust and loose paint on the top surface and edges of the top flanges. Wash the top surface and edges of the top flanges and paint them with one coat of an approved zinc-rich primer according to paint manufacture's recommendations. If flash rusting occurs prior to the application of the primer, stop painting application, remove the flash rusting and paint cleaned surface. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-I) is not allowed.

Where plans call for the cleaning of other painted structural steel including hanger assemblies, bearings, field splices, and connections, clean areas of loose paint and rust according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, or and according to paint manufacture's cleaning recommendations. Sound paint need not be removed with the exception of an area 12-inch on either side of hanger assembly centerlines. Clean this area to base metal according to the paint manufacture's cleaning recommendations and paint them one coat of an approved zinc-rich primer according to paint manufacture's recommendations. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-I) is not allowed.

For areas of exposed steel members that are to be imbedded in new concrete and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, thoroughly clean the surface area of exposed steel members that are to be imbedded in the new concrete and solvent wash and paint one coat of an approved zinc rich primer according to paint manufacture's recommendations to these areas. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-I) is not allowed.

According to the approved project specific hazardous material containment plan, furnish and erect tarpaulins or other materials to collect all of the spent paint containing material resulting from blasting or hand and power tool cleaning and coating. Minimize dust during all clean-up activities. Collect and store waste material at the end of each work day or more often if needed. Store waste materials in the hazardous waste containers provided. Lock and secure all waste containers at the end of each work day. Cover the container(s) at all times except when adding or removing waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain or exposed to standing water. Transportation and disposal of such waste material will be the responsibility of the department.

Damage to existing painted surfaces as a result of construction operations, shall be restored to the approval of the engineer at the contractor's expense.

D Measurement

The department will measure Preparation and Coating of Top Flanges (Structure) as a single complete lump sum unit of work for the structure, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.0900.S.001	Preparation and Coating of Top Flanges B-53-0214	LB
517.0900.S.002	Preparation and Coating of Top Flanges B-53-0215	LB

Payment is full compensation for preparing and cleaning the designated surfaces; and for furnishing and applying the coating.

stp-517-010 (20140630)

52. Concrete Staining B-53-0330, Item 517.1010.S.001; B-53-0331, Item 517.1010.S.002; B-53-0332, Item 517.1010.S.003; B-53-0333, Item 517.1010.S.004; B-53-0334, Item 517.1010.S.005; B-53-0335, Item 517.1010.S.006; B-53-0336, Item 517.1010.S.007; B-53-0337, Item 517.1010.S.008; R-53-0035, Item 517.1010.S.009; R-53-0036, Item 517.1010.S.010; R-53-0038, Item 517.1010.S.011; R-53-0039, Item 517.1010.S.012; R-53-0040, Item 517.1010.S.013; R-53-0041, Item 517.1010.S.014; S-53-0076, Item 517.1010.S.015; S-53-0077, Item 517.1010.S.016.

A Description

Furnish and apply a two coat concrete stain to the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

B Materials

B.1 Mortar

Use mortar for sack rubbing the concrete surfaces as given in standard spec 502.3.7.5 or use one of the following products:

Preblended, Packaged Type II Cement: Tri-Mix by TK Products
Thoroseal Pearl Gray by Thoro Products

The mortar shall contain one of the following acrylic bonding admixtures mixed and applied according to manufacturer's recommendations:

Acrylic Bonding Admixture: TK-225 by TK Products
Achro 60 by Thoro Products
Achro Set by Master Builders

B.2 Concrete Stain

Use concrete stain manufactured for use on exterior concrete surfaces, consisting of a base coat and a pigmented sealer finish coat. Use the following products, or equal as approved by the department, as part of the two coat finish system:

Tri-Sheen Concrete Surfacer, Smooth by TK Products
Tri-Sheen Acrylic by TK Products
TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products
Safe-Cure & Seal EPX by Chem Masters
H&C Concrete Stain Solid Color Water Based by Sherwin-Williams

C Construction

C.1 General

Furnish, prepare, apply, cure, and store all materials according to the product manufacturer's specifications for the type and condition of application required.

Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining.

C.2 Preparation of Concrete Surfaces

Provide a sack rubbed finish according to standard spec 502.3.7.5, using mortar as indicated above on concrete surfaces with open voids or honeycombing.

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material and that the surface will accept the coating material according to product requirements. As a minimum, clean the surface using a 3000-psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to produce an acceptable surface texture. Correct any surface problems resulting from the surface preparation methods. Grit blasting of the concrete surface is not allowed.

C.3 Staining Concrete Surfaces

Apply the concrete stain according to the manufacturer's recommendations.

Apply the concrete stain when the temperature of the concrete surface is 45º F or higher, or as given by the manufacturer.

The color of the stain shall be as given on the plan. Tint the base coat to match the finish coat; the two coats shall be compatible with each other.

Do not begin staining the structure until earthwork operations are completed to a point where this work can begin without receiving damage. Where this work is adjacent to exposed soil or pavement areas, provide temporary covering protection from overspray or splatter.

C.4 Test Areas

Prior to applying stain to the structure, apply the stain to sample panels measuring a minimum of 48-inches x 48-inches and constructed to demonstrate workmanship in the use of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining. Prepare the concrete surfaces of the sample panels and apply

stain using the same materials and in the same manner as proposed for the structure, including staining of the joints between the stones produced by the form liner if applicable. Do not apply stain to the structure until the department approves the test panels.

C.5 Surfaces to be Coated.
Apply concrete stain to the surfaces according to the plan.

D Measurement
The department will not measure Concrete Staining (Structure). The department will use pay plan quantity conforming to standard spec 109.1.1.2.

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.001	Concrete Staining B-53-0330	SF
517.1010.S.002	Concrete Staining B-53-0331	SF
517.1010.S.003	Concrete Staining B-53-0332	SF
517.1010.S.004	Concrete Staining B-53-0333	SF
517.1010.S.005	Concrete Staining B-53-0334	SF
517.1010.S.006	Concrete Staining B-53-0335	SF
517.1010.S.007	Concrete Staining B-53-0336	SF
517.1010.S.008	Concrete Staining B-53-0337	SF
517.1010.S.009	Concrete Staining R-53-0035	SF
517.1010.S.010	Concrete Staining R-53-0036	SF
517.1010.S.011	Concrete Staining R-53-0038	SF
517.1010.S.012	Concrete Staining R-53-0039	SF
517.1010.S.013	Concrete Staining R-53-0040	SF
517.1010.S.014	Concrete Staining R-53-0041	SF
517.1010.S.015	Concrete Staining S-53-0076	SF
517.1010.S.016	Concrete Staining S-53-0077	SF

Payment is full compensation for furnishing and applying the two coat system; for preparing the concrete surface; and for preparing the sample panels.
stp-517-110 (20140630)

53. Architectural Surface Treatment B-53-0330, Item 517.1050.S.001; B-53-0331, Item 517.1050.S.002; B-53-0332, Item 517.1050.S.003; B-53-0333, Item 517.1050.S.004; B-53-0334, Item 517.1050.S.005; B-53-0335, Item 517.1050.S.006; B-53-0336, Item 517.1050.S.007; B-53-0337, Item 517.1050.S.008; R-53-0035, Item 517.1050.S.009; R-53-0036, Item 517.1050.S.010; R-53-0038, Item 517.1050.S.011; R-53-0039, Item 517.1050.S.012; R-53-0040, Item 517.1050.S.013; R-53-0041, Item 517.1050.S.014.

A Description

Construct a concrete masonry architectural surface treatment on the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

B Materials

Use form liners that attach easily to the forming system, and do not compress more than 1/4-inch when poured at a rate of 10 vertical feet/hour.

Use a release agent that is compatible with the form liner and coloring materials.

Wall ties shall have set "break-backs" at a minimum of 3/4-inches from the finished concrete surface.

C Construction

C.1 Equipment

Equipment and tools necessary for performing all parts of the work shall be satisfactory as to design, capacity, and mechanical condition for the purposes intended. Repair, improve, replace, or supplement all equipment that is not maintained in full working order, or which is proven inadequate to obtain the results prescribed.

C.2 Form Liner Preparation

Clean the form liner prior to each pour and ensure that it is free of any build-up. Visually inspect each liner for blemishes or tears, and repair if necessary per manufacturer's recommendations.

Apply form release per manufacturer's recommendations.

C.3 Form Liner Attachment

Place adjacent liners less than 1/4-inch from each other, attach liner securely to forms according to the manufacturer's recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

C.4 Surface Finishing

Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

D Measurement

The department will not measure Architectural Surface Treatment (structure). The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1050.S.001	Architectural Surface Treatment B-53-0330	SF
517.1050.S.002	Architectural Surface Treatment B-53-0331	SF
517.1050.S.003	Architectural Surface Treatment B-53-0332	SF
517.1050.S.004	Architectural Surface Treatment B-53-0333	SF
517.1050.S.005	Architectural Surface Treatment B-53-0334	SF
517.1050.S.006	Architectural Surface Treatment B-53-0335	SF
517.1050.S.007	Architectural Surface Treatment B-53-0336	SF
517.1050.S.008	Architectural Surface Treatment B-53-0337	SF
517.1050.S.009	Architectural Surface Treatment R-53-0035	SF
517.1050.S.010	Architectural Surface Treatment R-53-0036	SF
517.1050.S.011	Architectural Surface Treatment R-53-0038	SF
517.1050.S.012	Architectural Surface Treatment R-53-0039	SF
517.1050.S.013	Architectural Surface Treatment R-53-0040	SF
517.1050.S.014	Architectural Surface Treatment R-53-0041	SF

Payment is full compensation for producing the proposed architectural surface treatment including: preparing the foundation; finishing and protecting the surface treatment; and for properly disposing of surplus material.
stp-517-150 (20110615)

54. Surface Drain Pipe Corrugated Metal Slotted, 12-Inch, Item 521.2005.S.001; 18-Inch, Item 521.2005.S.002.

A Description
This special provision describes furnishing and installing slotted corrugated metal pipe surface drain as shown on the plans, according to standard spec 521, and as hereinafter provided.

B Materials
Furnish backfill material that is grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501.2 as modified in standard spec 716. Provide QMP for class III ancillary concrete as specified in standard spec 716.

C Construction
Prior to backfilling, plug the upper end of the slotted drain as shown on the plans or as approved by the engineer.

Prior to backfill operations adjacent to the slotted area of the slotted corrugated metal pipe surface drain pipe, install timber blocks in the slots according to the details as shown on the plans. Remove any material entering the pipe at no expense to the department.

Keep the timber blocks in place until final clean up operations are completed; at which time, remove the timber blocks.

Exercise care to avoid damage to the slotted corrugated metal pipe surface drain pipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drain pipe at no expense to the department.

D Measurement
The department will measure Surface Drain Pipe Corrugated Metal Slotted (size), completed according to the contract and accepted, in place by the 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
521.2005.S.001	Surface Drain Pipe Corrugated Metal Slotted 12-Inch	LF
521.2005.S.002	Surface Drain Pipe Corrugated Metal Slotted 18-Inch	LF

Payment is full compensation for furnishing all materials; hauling and placing the pipe, including bands; making connections to existing inlets; furnishing concrete, end plug or cap; and for cleaning out and restoring site of work.
stp-521-005 (20150630)

55. Apron Endwalls for Culvert Pipe (size).

Supplement standard spec 524.5(3) with the following:

Payment for the Apron Endwalls for Culvert Pipe Salvaged bid items include any necessary cleaning and reinstalling of existing attached pipe grates and relocating existing culvert end markers.

56. Noise Barriers Single-Sided Sound Absorptive N-53-010, Item 531.0200.S.001; N-53-011, Item 531.0200.S.002; N-53-012, Item 531.0200.S.003; N-53-013, Item 531.0200.S.004; N-53-014, Item 531.0200.S.005; N-53-015, Item 531.0200.S.006; N-53-016, Item 531.0200.S.007; N-53-017, Item 531.0200.S.008; N-53-018, Item 531.0200.S.009.

A Description
This special provision describes designing, fabricating, transporting, and erecting composite concrete single-sided sound absorptive noise barriers in accordance with the plans, portions of the standard specifications cited below, the department-approved installation specifications, and as hereinafter provided.

B Noise Wall System

B.1 System Pre-Qualification and Selection

The noise wall system supplied must be pre-qualified by the department. The department maintains a list of pre-qualified systems which can be viewed online at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx

Systems eligible for use on this project shall be pre-qualified prior to the award of this contract.

Provide the name of the selected system, and the intended fabricator to the engineer within 25 days after award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and prior to beginning design of the noise barrier. A representative of the fabricator of the noise barrier components shall attend this meeting.

B.2 Design

B.2.1 Structural and Foundation Design

The structural and foundation design of the noise barrier system shall conform to the current edition of "AASHTO LRFD Bridge Design Specifications" published by the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW, Suite 225, Washington, DC 20001, with the following exceptions:

Design the noise barrier to withstand wind pressure, applied perpendicular to the barrier, in each direction, of 28.5 pounds per square foot for ground mounted barriers, and 37.5 pounds per square foot for structure mounted barriers.

Design drilled shaft foundations using the Broms Method. Ignore the top 1-foot of supporting soil in the design of ground-mounted barrier foundations.

In addition to wind loads, design the bottom noise barrier panel to support the dead load (weight) of the panels directly above it and its own dead load. Assume this dead load to be distributed uniformly across the bottom panel acting as a simple beam supported at the posts.

Bottom noise barrier panels shall have a minimum amount of perimeter reinforcement of a #4 bar which shall be continuous around the comers. Reinforcing steel in the concrete core of noise barrier panels shall have a minimum clear cover of 1 inch. Clear cover does not include sound absorptive material. Design the reinforced concrete core to resist the loads without considering any composite action from other material in the panel.

Provide a neoprene bearing pad or equivalent material of ¼ inch minimum thickness between the foundation and the bottom panels. The allowable bearing stress shall not exceed 900 psi. Precast concrete pedestals placed between the foundation and bottom panels shall be reinforced if over l'-0" high. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80.

B.2.2 Fire Hose Access Openings
Design fire hose access openings, at locations shown on the plans, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity. Detail drawings shall show the additional reinforcement and method for attaching the Fire Hydrant Location Signs to the barrier panel.

B.2.3 Barrier Profile
Unless otherwise shown on the plan or approved by the engineer, design the top of the noise barrier to be horizontal and at or above the acoustic elevation line shown on the plans. The bottom elevation of the noise barrier shall be as shown on the plans. Changes in elevation shall be accomplished by stepping sections at posts. Steps shall not exceed 3-feet in height. All joints shall be horizontal or vertical and shall be aligned with the adjacent panels.

B.2.4 Panel Orientation
Design the panels to prevent entrapment and ponding of water. Avoid inadvertently providing areas for perching, nesting of birds or collecting of dirt and debris in the design of the noise barrier system.

B.2.5 Sound Transmission Loss (TL)
Design the noise barrier panel material to achieve a transmission loss equal to or greater than 20 decibels in all test frequency bands, as referenced in ASTM E90.

B.2.6 Noise Reduction Coefficient (NRC)
Design the noise barrier system so that the highway sides of the noise barrier panels have a minimum NRC of 0.80, as referenced in ASTM C423.

B.2.7 Design Coordination
Design the noise barrier post spacing so as not to interfere with the existing utility and drainage facilities.

Design the noise barrier post spacing so as not to interfere with proposed utility and drainage facilities shown in the plans. This includes proposed roadway lighting and ITS facilities. For noise barriers mounted behind or near proposed retaining walls, coordinate and design the noise barrier post spacing so as to not interfere with embedded portion of the proposed retaining walls, including MSE wall soil reinforcement and tieback anchors on soldier pile and timber lagging retaining walls.

For noise barriers mounted on proposed bridges and retaining walls, coordinate and design the noise barrier post spacing to coincide with noise barrier post and embedded noise barrier anchor assembly spacing shown on the bridge and retaining wall plans. Coordinate any required changes to the noise barrier post spacing and embedded noise barrier anchor assembly locations shown on the bridge and retaining wall plans, if required for the design of the noise barrier.

B.2.8 Weep Hole Openings
Design panels such that weep hole openings in noise wall to allow water to drain can be field installed per C.3 at locations shown on the plans.

B.2.9 Maintenance Doors
Design maintenance doors and door portals in noise walls, at locations shown on the plans, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity per B.2.1.

B.3 Materials
All materials used in the work shall conform to the requirements of the standard specifications cited below and as hereinafter specified. All required material certifications and testing are the responsibility of the contractor. All certifications and test reports shall carry the name and address of the fabrication facility where the specific material was produced.

B.3.1 Concrete Masonry
Provide grade A, A-2, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716 for concrete posts and the core component of composite concrete sound absorbing panels. Provide QMP for class II ancillary concrete as specified in standard spec 716.

B.3.2 Materials Testing - General
All test reports shall carry the name and address of the laboratory where testing was performed, and the name of the person in responsible charge of the specific tests for which data is presented. Materials tested shall be representative of materials manufactured for this specific contract. Panels tested or from which samples will be taken will be selected and appropriately marked by the engineer either at the manufacturer's plant or from panels delivered to the project at the engineer's option.

Testing as detailed below is required for each lot of material not to exceed 100,000 SF of noise barrier produced. Conduct testing on panels within the first 30,000 SF of production of each lot not exceeding 100,000 SF. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage. The first set of tests conducted for projects that do not exceed 100,000 SF shall be within the first third of the total square footage of the project. Provide the shipping record of the samples to the laboratory within five days of sampling. Commence testing as soon as practicable after sampling.

Test all materials as fabricated, including any specified finishing.

B.3.2.1 Noise Reduction Coefficient (NRC)
Test noise barrier panels in accordance with ASTM C423, and placed in accordance with ASTM E795, mounting type A, to determine the noise reduction coefficient (NRC) of the material. Submit to the engineer an independent laboratory test report that shows that the noise barrier panels achieve an NRC as specified in B.2.6 for the highway side of the barrier.

B.3.2.2 Long-term Durability
Test all sound absorbing composite concrete and composite concrete components for long--term durability in accordance with ASTM C672 and the following modifications and/or requirements:

B.3.2.2.1 Test Specimens
Three specimens of a full cross section of the composite panel at least 144 square inches in face area will be selected at random from the provided composite panel as defined in B.3. Sample specimens shall be representative of the manufacturer's continuous production operation, as selected and marked by the engineer. Specimens shall be 2D-symmetric and shaped according to the testing laboratory's accommodations.

Prepare the surfaces of the sample specimen(s) for testing as follows. Brush the surfaces of the sample to remove any loose particles. Prior to testing, submerge the test specimens be submerged in water for a period of 24 hours prior to testing. Immediately following this, cover the specimens with the sodium chloride solution as stated below.

B.3.2.2.2 Test Procedure
Place samples in a 5 sided water tight container, fully submerged in a solution of sodium chloride (concentration 3% by mass). Maintain ¼-inch of sodium chloride solution above the top surface of the fully submerged specimen within the container.

Subject the submerged specimens to continuous freeze-thaw cycles as follows:

After each five cycles, remove the salt solution and particles of deteriorated concrete from the slab and collect in a watertight container. The operation is best accomplished by tilting the slab in a funnel approximately 20-inches in diameter and washing the surface of the slab with a 3% sodium chloride solution. Continue this washing until all loose particles are removed from the sample. Strain the solution through a filter and dry the residue at 221 degrees Fahrenheit to a constant mass condition. Cumulatively weigh the residue after each five cycles. The dry residue is defined as the loss of mass. Calculate the loss of mass to the nearest 0.01 pounds per square foot, not including the exposed surface of any core material on the cast or cut edges, or any of the conventional concrete face of single-sided panels. Visually rate the surfaces in accordance with 10.1.5 of ASTM C672 including any delamination of the sound absorbing material from the concrete core for composite concrete materials. After each washing of each sample, re-establish the initial submerged condition with a new solution of 3% sodium chloride prior to continuing with freeze-thaw cycling.

Continue the test until 30 freeze-thaw cycles have been completed.

During the test position and support each specimen to allow free circulation of the test solution under, around, and over test pieces. Support the bottom of the specimens on blocks in a manner to facilitate movement of moisture through and around the test specimen(s).

B.3.2.2.3 Test Report
Submit to the engineer an independent testing laboratory test report which shows that all solid and composite concrete products meet or exceed the following criteria:

a. After 30 freeze-thaw cycles the test specimens shall not exhibit excessive deterioration in the form of cracks, spalls, aggregate disintegration, delamination or other objectionable features.
b. Compliance with the test requirements is based upon a loss of mass of not more than 0.2 pounds per square foot from the surface after 30 cycles of freezing and thawing.
c. The report shall include the following:
    1. Name of manufacturer.
    2. Location of production.
    3. Production description.
    4. Date product sample was cast.
    5. Commencement date of testing.
    6. Specimen identification.
    7. 5x7-inch color photographs of the test specimens before and after the 30 cycles of freeze-thaw test showing both sound absorbing faces and at least one representative side view of a cut (not cast) face, and any defects.
    8. A graph of the cumulative mass loss of each specimen plotted against the number of freeze-thaw cycles for 5, 10, 15, 20, 25, and 30 freeze-thaw cycles.
    9. Visual rating in accordance to ASTM C672 Section 10.1.5, including report of any delamination of the sound absorbing material from the concrete core for composite concrete components.

B.3.3 Materials Certification - General
Provide certification of compliance or sample fabrications as noted below. All material certifications shall reference the specific facility manufacturing the material and this contract. Certification is required for each lot of material not to exceed 100,000 SF of noise barrier produced, and shall include dates of fabrication for the lot being certified. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage.

B.3.3.1 Color and Surface Texture
Supply and deliver to the engineer a 3-foot x 5-foot minimum test panel for each panel type with the specified pattern and colors. Obtain the engineer's acceptance of the panel's pattern and color prior to production of the panels required for the contract. The accepted pattern and color test panels shall remain on the project site in a readily accessible location for the duration of the project. The accepted pattern and color sample panels will be the standard for all noise barriers on the project.

Manufacture noise barrier posts of the same materials throughout the project. Shop apply coating and coloring of the post and panels.

Unless otherwise shown and provided for in the plans, wall pattern shall contain textures with relief features of sufficient depth and quantity to be distinguishable at an observation

distance of 500-feet. The color(s) and texture(s) chosen will be within the following parameters; however, at the discretion of the engineer, a single color and/or a single texture may be selected for either side of the noise barrier.

	Freeway Side	**Residential Side**
Number of colors	2	2
In the proportion of	75:25 (±5%)	75:25 (±5%)
Number of textures	2	2
In the proportion of	75:25 (±5%)	75:25 (±5%)

The final color of the panels, posts and grout lines shall be as shown on the plans and match the Federal Standard color system list. Coating and coloring of the post and panels shall be shop applied.

Base Color – #30372
Accent Color – #30140

All individual noise barrier panels shall be the same color on both sides, unless otherwise approved by the engineer. Noise barrier posts shall be manufactured of the same materials throughout the project.

The engineer will visually inspect panels for color consistency upon arrival at the project. The panels shall have no substantial variation in color from the accepted sample panel submitted for the project. All panels with substantial color variation will be rejected and shall be removed from the project.

B.3.3.2 Structural Steel
Submit to the engineer certification of compliance, including mill certifications and heat numbers, that structural steel conforms to the properties required on the plans and shop drawings, and is galvanized after fabrication by the hot-dip process in accordance with ASTM A123. Galvanize all steel hardware and threaded fasteners, bolts, nuts, and washers in accordance with ASTM A153.

Shop coat all steel galvanized surfaces exposed to view with an approved paint system as hereinafter specified. Clean galvanizing surfaces to be painted in accordance with SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. Brush Blast clean the surfaces in accordance with SSPC-SP7 to create a slight angular surface profile (1.0 - 1.5 mils suggested) for adhesion. Do not fracture the galvanized finish or remove any dry film thickness during these processes.

After cleaning, provide a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface. The tie coat shall etch the galvanized surface and prepare the surface for the top coat. Apply a top coat matching the finished color specified in B.3.2. Use a pre-approved top coat that is resistant to the effects of the sun, and is suitable for use in a marine environment: Exercise care so as not to damage the painted surfaces during shipment and erection of the noise barriers.

Use one of the qualified paint sources and products given below. An equivalent system may be used with the written approval of the engineer. Supply the engineer with the product data sheets before applying any coating. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, the minimum drying time for shop applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

Producer	Coat	Products	Dry Film Minimum Thickness (mils)	Minimum Time Between Coats (hours)
Sherwin Williams Co. (847) 330-1250	Tie	Recoatable Epoxy Primer B67-5 Series/B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
Carboline Co. (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
Wasser Corp. (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

B.3.3.3 Sound Transmission Loss (TL)
Submit to the engineer certification of compliance that the sound transmission loss of the panel material, when tested in accordance with ASTM Standard E90, achieves a transmission loss as specified in B.2.5.

B.3.3.4 Accelerated Weathering
Submit to the engineer certification of compliance that all coatings on barrier components, with the exception of structural steel and wood components comply with the following requirements when tested in accordance with ASTM Standard G155, G153, or G152 after 2400 hours of exposure on a cement based test specimen(s):

1. No checking when rated in accordance with ASTM D660.
2. No cracking when rated in accordance with AS TM D661.
3. No blistering when rated in accordance with ASTM D714.
4. No difference in adhesion between the unexposed control sample and an exposed sample when tested in accordance with ASTM D3359, Method A.
5. No chalking less than #7 rating when rated in accordance with ASTM D4214.
6. No color change greater than 5 NBS units when measured in accordance with ASTM D2244, using illuminant D65 and the 1964 10-degree standard observer.

B.3.3.5 Corrosion Resistance (Salt Fog Exposure)
Submit to the engineer certification of compliance that all coated steel components, with the exception of structural steel, has a coating system that has been tested for corrosion resistance in accordance with ASTM B117 and comply with the following requirements:

1. No checking when rated in accordance with ASTM D660.
2. No blistering when rated in accordance with ASTM D714.
3. No loss of adhesion when tested in accordance with ASTM D3359 with no evidence of corrosion along the edges of the samples or along the score lines, or both, or other defects.

B.4 Project Submittal Requirements
Furnish required submittals according to the following:

B.4.1 Pre-Construction Submittals
Submit the following documents to the engineer for review by the Bureau of Structures Design Section, at least 14 calendar days prior to beginning any shop or field work:

1. Structural and foundation design calculations (1 set)
   Design calculations shall be on 8½ x 11-inch sheets, neatly bound with a title sheet listing the complete project identification number and sound barrier designation. Structural and foundation calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.
2. Detailed design/shop drawings (3 sets)
   Design/shop drawings shall conform to the contract plans and the requirements of these special provisions. The design/shop drawings shall consist of plan and profile sheets, details, explanatory notes, erection diagrams, aesthetic treatments, and other working plans. All dimensions, sizes of material, material information and other information necessary for the complete fabrication and construction of the noise barrier shall be designated on the appropriate sheets. The design/shop drawings shall be drawn to an appropriate scale on reproducible sheets 11 x 17 -inches including borders. Each sheet shall carry the complete project identification number and noise barrier designation. Design/shop drawings shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.
3. Specifications regarding installation requirements and sequence of construction, including a detailed bill of materials (1 set).
4. Detailed color plan of the aesthetic treatments and finishes for the entire noise barrier (1 set).
5. Shipping, handling, and storage plan identifying methods or practices to limit post production damage (1 set)

B.4.2 Pre-Installation Submittals
Supply and deliver to the engineer the sample panel required under Section B.3.3.1 at least 14 calendar days prior to beginning production and/or installation of job materials. Acceptance of the sample panel will be by the engineer. If the panel is not acceptable, a second panel shall be produced and submitted for acceptance. Sample panel to be representative of quality for precast panel work after acceptance. Deliver test panels to field office, for comparison purposes during production of project panels.

B.4.3 Payment Submittals
Submit certifications and test data as required under B.3 for all materials, including trade name of the products along with the name and address of the manufacturers.

B.4.4 Submittal Review
The engineer's review and acceptance of the drawings, calculations, and related material, submitted by the contractor, is for compliance with design intent only, and does not relieve the contractor from responsibility in regard to errors or omissions on said submittals.

The final accepted design documents and/or shop drawings will become a part of the contract. Any substitution of materials or dimensions contemplated by the contractor's submitted documents, different from materials or dimensions shown on the contract plans, shall be made only when approved by the engineer, and in such case, additional costs resulting from such substitution shall be borne by the contractor.

Ordering of materials by the contractor prior to acceptance of pertinent submittals shall be at the contractor's own risk.

C Construction
C.l General
Construct the noise barriers at the locations shown on the plans, in accordance to the contract specifications and design drawings and/or as directed by the engineer. Deliver all sound absorbing composite concrete components to the project site(s) as a finished component. A sound absorbing composite concrete system, which has the sound absorbing material glue-laminated or alternately affixed by a secondary adhesion method on the project site, will not be allowed.

Provide a minimum ten day notice to the engineer of the date that the fabrication of the noise barrier material will commence.

Inspect all materials delivered to the construction site for proper dimensions, honeycombing, cracks, voids, surface defects, consistency in color and texture, and any other damage or imperfections, prior to installation.

If any part of the noise barrier material fails to comply with any requirements of the contract specification, the component shall either be corrected, permanently marked as unacceptable and be disposed of by the contractor or accepted at a reduced price. The decision will be made by the engineer and is dependent on the severity of the specification deviation.

Erect noise barriers to avoid conflict with any existing facilities or utilities to remain in place. Any damage caused by construction activities shall be repaired by the contractor at no cost to the department.

C.2.1 Fire Hydrant Location Signs
Furnish and install fire hydrant location sign(s). These shall be attached to the noise barrier at each location shown on the plans by a method as shown on the department's approved

drawings. The signs shall conform and be of the type specified in the department's sign plate book, plate D9-54 and/or D9-54A.

Compensation for furnishing and placing the fire hydrant location signs shall be included in the contract price for Noise Barriers Single-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.2.2 Maintenance Door Location Signs
Furnish and install maintenance door location signs. These shall be attached to the noise barrier panels and maintenance doors at each location as shown on the plans. The method for attaching the signs to the noise barrier panels and maintenance doors shall be detailed in the shop drawings for approval by the engineer. The signs shall conform and be of the type specified in the department's sign plate book, plate D9-54 and D9-54A.

Compensation for designing, detailing in the shop drawings, furnishing and placing the maintenance door location signs on both the noise barrier panels and maintenance doors shall be included in the contract price for Noise Barriers Single-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.3 Weep Hole Openings
Furnish and install weep hole openings for drainage at the locations and sized as noted on the plan. Install weep holes by drilling through the wall after erection of the noise barrier. Use 6" PVC Schedule 40 pipe sleeve conforming to ASTM D-1785. Epoxy 6" PVC Schedule 40 pipe sleeve into bored weep hole. PVC pipe sleeve shall fit snugly in cored hole through wall. Epoxy PVC pipe sleeve into bored weep hole in noise barrier. Locate and construct weep holes in accordance with the plans and as the engineer directs. Weep holes shall be placed at the locations shown in the plans, unless approved by the engineer to adjust locations to fit field conditions. The engineer will field verify the height and location of the weep hole for positive drainage.

C.4 Name Plates
Furnish and install name plates conforming to the requirements of standard spec 506.2.4. Furnish and place one name plate on each noise barrier at the location indicated on the plans. Rigidly attach each plate to the barrier by a means approved by the engineer.
Compensation for furnishing and placing of name plates shall be included in the contract price for Noise Barriers, Single-Sided Sound Absorptive Structure and no additional compensation therefore will be allowed.

C.5 Structure Mounted Noise Barriers
Do not erect noise barriers mounted to bridge or retaining wall structures until after the concrete for bridge decks and parapets or retaining wall moment slabs and parapets have attained their specified 28-day strength.

For noise barriers mounted to moment slabs and parapets on top of MSE retaining walls, erection of the noise barrier is limited to two-thirds the height of the noise barrier acoustical line shown in the plans prior to placement of earth fill or pavement over the top of the

moment slab as shown in the plans. Erection of the noise barrier in excess of two-thirds its height to the full height of the noise barrier acoustical line shown on the plans may not occur until after the earth fill or pavement structure over the top of the moment slab shown in the plans is complete.

C.6 Construction Tolerances
Install the posts and panels comprising the noise barrier plumb within ½-inch in 15-feet. Locate the posts to the line and grades as shown in the plans to within +/- ¾-inch. Align horizontal joints of adjacent panels to a vertical tolerance of ¼-inch. Where vertical adjustments are required for alignment, use a mortar base or steel shims. Galvanize and prime coat steel shims in accordance with B.3.3.2.

D Measurement
The department will measure Noise Barriers Single-Sided Sound Absorptive by the square foot, acceptably completed, as the area the original plans show plus engineer-approved modifications to the plan quantity caused by plan corrections or revisions.

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

ITEM NUMBER	DESCRIPTION	UNIT
531.0200.S.001	Noise Barrier Single-Sided Sound Absorptive N-53-010	SF
531.0200.S.002	Noise Barrier Single-Sided Sound Absorptive N-53-011	SF
531.0200.S.003	Noise Barrier Single-Sided Sound Absorptive N-53-012	SF
531.0200.S.004	Noise Barrier Single-Sided Sound Absorptive N-53-013	SF
531.0200.S.005	Noise Barrier Single-Sided Sound Absorptive N-53-014	SF
531.0200.S.006	Noise Barrier Single-Sided Sound Absorptive N-53-015	SF
531.0200.S.007	Noise Barrier Single-Sided Sound Absorptive N-53-016	SF
531.0200.S.008	Noise Barrier Single-Sided Sound Absorptive N-53-017	SF
531.0200.S.009	Noise Barrier Single-Sided Sound Absorptive N-53-018	SF

Payment is full compensation for providing noise barrier including: coloring and aesthetic treatment on panels, preparing the design drawings and calculations, furnishing and delivering sample and test panels, materials testing, furnishing materials test reports and certifications, excavation, preparing the site, constructing foundations, erecting posts and panels, and disposing of waste materials.
stp-531-005 (20161130)

57. Reseal Crushed Aggregate Slope Paving, Item 604.9015.S.

A Description
Seal the existing crushed aggregate slope paving according to standard spec 604, as directed by the engineer, and as hereinafter provided.

B Materials
Furnish materials conforming to standard spec 604.2.

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

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

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

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

Payment is full compensation for cleaning the surface; furnishing and applying the asphalt.
stp-604-015 (20100709)

58. Adjusting Manhole Covers.

This work shall be according to the pertinent provisions of standard spec 611, as shown on the plans, and as hereinafter provided.

Adjust manhole covers located in pavement areas in two separate operations. Initially, remove designated manhole covers along with sufficient pavement to permit installation of temporary cover plate over the opening. Fill the excavated area with asphaltic pavement mixture, which shall remain in place until contract milling and paving operations permit setting the manhole frames to grade. During the second phase, remove the asphaltic pavement mixture surrounding the manhole plus the temporary cover plate, and set the manhole cover to final grade. The department will measure and pay for the items of asphaltic pavement mixture, temporary cover plate, milling, and paving separately.

Revise standard spec 611.3.7 by deleting the last paragraph.

Set the manhole frames so that they comply with the surface requirements of standard spec 450.3.2.9. At the completion of the paving, a 6-foot straightedge shall be placed over the centerline of each manhole frame parallel to the direction of traffic. A measurement shall be made at each side of the frame. The two measurements shall be averaged. If this average is greater than 5/8 inches, reset the manhole frame to the correct plane and elevation. If this average is 5/8 inches or less but greater than 3/8 inches, the manhole frame shall be allowed to remain in place but shall be paid for at 50 percent of the contract unit price.

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.
stp-611-005 (20030820)

59. Cover Plates Temporary, Item 611.8120.S.

A Description
This special provision describes furnishing, installing and removing a steel plate to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials
Provide a 0.25-inch minimum thickness steel plate that extends to the outside edge of the existing masonry.

C (Vacant)

D Measurement
The department will measure Cover Plates Temporary as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	Each

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.
stp-611-006 (20151210)

60. Pipe Grates 36-Inch, Item 611.9800.S.001; 48-Inch, Item 611.9800.S.002.

A Description
This special provision describes furnishing and installing pipe grates on the ends of pipes as shown in the plans, and as hereinafter provided.

B Materials
Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel pipe conforming to the requirements of standard spec 506.2.3.6.

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction
Repair pipes, rods, angles and brackets on which the galvanized coating has been damaged according to the requirements of AASHTO M36M.

D Measurement
The department will measure Pipe Grates in units of work, where one unit is one grate, completed and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S.001	Pipe Grates 36-Inch	Each
611.9800.S.002	Pipe Grates 48-Inch	Each

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to pipes.
stp-611-010 (20030820)

61. Insulation Board Polystyrene, 2-Inch, Item 612.0902.S.001.

A Description
This special provision describes furnishing and placing polystyrene insulation board as shown on the plans and as hereinafter provided.

B Materials
Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230, except as hereinafter revised.

Delete flammability requirement.

B.1 Certification
Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the engineer.

C (Vacant)

D Measurement
The department will measure Insulation Board Polystyrene (size) by area in square yards of work, completed and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
612.0902.S.001	Insulation Board Polystyrene 2-Inch	SY

Payment is full compensation for all excavation; and for furnishing and placing the insulation board.
stp-612-005 (20030820)

62. Fence Safety, Item 616.0700.S.

A Description
This special provision describes furnishing and installing a plastic fence at locations shown on the plans and as hereinafter provided.

B Materials
Furnish notched conventional metal "T" or "U" shaped fence posts.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction
Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement
The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, 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
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.
stp-616-030 (20160607)

63. Salvaged Topsoil.

Replace standard spec 625.3.3 (3) with the following:
For the upper two inches of the topsoil, 100 percent of the material must pass a one-inch sieve and at least 90 percent must pass the No. 10 sieve.

64. 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.
stp-638-010 (20150630)

65. 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.
stp-643-010 (20100709)

66. Traffic Control Surveillance and Maintenance 1003-10-84, Item 643.0200.S.001; 1005-10-76, Item 643.0200.S.002; 1005-11-71, Item 643.0200.S.003.

A Description
This special provision describes providing personnel to inspect and maintain the traffic control devices, furnished, and installed, in proper condition.

B Materials
Provide one person, called the traffic control specialist, all necessary vehicles, equipment, tools, and repair materials. Provide other personnel to accomplish the inspection and maintenance if needed.

C Construction
Inspection and maintenance includes all traffic control signs or devices included in the contract, including those on detour routes. Begin when the first traffic control sign or device is put into operation and end when the last traffic control sign or device is removed from operation.

1. Ensure that the traffic control specialist inspects the traffic control signs and devices at least twice each workday and once each non-workday with at least one of the daily inspections during daytime. Separate inspections done on workdays by at least 8 hours or the amount of time from the beginning to the end of that day's work operations, whichever is less. During each inspection, clean, repair, or replace each traffic control sign or device not performing as intended, as necessary.

2. Ensure that the traffic control specialist inspects each reflective traffic control sign or device at least once each week during hours of darkness. View the signs and devices using low beam vehicle headlights to ensure reflectorization is unimpaired. Clean, repair, or replace each reflectorized traffic control sign or device not performing as intended, as necessary, before sunset of the next calendar day, or as the engineer directs otherwise.

3. Ensure that the traffic control specialist meets once each workday with the department representative responsible for traffic control on the project to discuss possible problems with the traffic control.

4. Ensure that the traffic control specialist submits a written report weekly to the engineer documenting both daytime and nighttime inspections.

5. Make the control specialist, or other contractor-designated person, available 24 hours per day, 7 days per week to clean, repair, or replace traffic control devices not performing as intended throughout the period traffic control signs and devices are operating under this contract. Provide to the engineer, the County Sheriff, and the State Patrol Region Headquarters responsible for that county the telephone number to contact the control specialist or other contractor-designated person. Ensure that the control specialist, or other designated person, is able to reach any location within the contract limits, or on detour routes, within 2 hours of being contacted, and can promptly accomplish the necessary cleaning, repair, or replacement.

D Measurement

The department will measure the Traffic Control Surveillance and Maintenance bid items by the day, acceptably completed. The measured quantity will equal the number of calendar days from the date the first traffic control sign or device is placed into operation through the date the last traffic control sign or device is removed from operation.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.0200.S.001	Traffic Control Surveillance and Maintenance 1003-10-84	DAY
643.0200.S.002	Traffic Control Surveillance and Maintenance 1005-10-76	DAY
643.0200.S.003	Traffic Control Surveillance and Maintenance 1005-11-71	DAY

Payment is full compensation for Payment for the Traffic Control Surveillance and Maintenance bid items is full compensation for providing all labor, materials, tools, equipment, vehicles, and incidentals, including reports and telephone charges, necessary to complete the work; and for partially or fully covering or uncovering signs not paid separately under the Traffic Control Covering Signs bid items. The department will not pay for replaced traffic control signs or devices under this bid item; replacement is incidental to the respective contract bid item or items.

stp-643-016 (20160607)

67. 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.
(7/6/2014)

68. 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, 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	Revolving Type Light
360-degree lens	360-degree lens
60 to 90 flashes per minute	45 to 90 flashes per minute
5-inch minimum height	4-5/8 inch minimum height
3-3/4 inch minimum diameter	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 guardrail 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.

69. Temporary Pedestrian Surface Asphalt, Item 644.1410.S; Temporary Pedestrian Surface Plywood, Item 644.1420.S.

A Description
This special provision describes providing, maintaining, and removing temporary pedestrian surface.

B Materials
Furnish 1 1/4-inch dense graded aggregate conforming to standard spec 305.2. Furnish:

- Asphaltic surface conforming to standard spec 465.2.
- Pressure treated 2x4 framing lumber, pressure treated 3/4-inch plywood with skid resistant surface coating, and weather resistant deck screws 3-1/2-inch minimum for framing and 1-5/8-inch minimum for plywood.
- 1/4 inch minimum steel plate or commercially available prefabricated plates with skid resistant surface coating conforming to Americans with Disabilities Act Accessibility Guidelines. If placed in the roadway, must be able to handle a vehicle weight of 88,000 lbs.

C Construction
Place, compact, and level a dense graded aggregate foundation before placing the surface.

Provide a firm, stable, and slip-resistant surface layer with vertical joints no higher than 1/4 inch and horizontal joints no wider than 1/2 inch. Sheet materials up to 1 inch thick may be lapped if the edge is beveled at 45 degrees or flatter. Asphalt may also be used to ramp up to materials up to 1 inch thick. Construct conforming to the following:

- Asphalt surface a minimum of 2 inches thick compacted with compactors, tampers, or rollers.

- Framed plywood panels 4 feet wide with a skid resistant surface coating.
- Steel or prefabricated plate with a skid resistant surface coating.

Align parallel to the existing roadway grade or, if outside of a street or highway right-of-way, do not exceed 5 percent longitudinal slope. Provide cross slope of 1 to 2 percent unless the engineer approves a steeper cross slope in writing.

Maintain the surface with a 4-foot minimum clear width and the specified joint and slope requirements. Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 203.3.4 when no longer required.

D Measurement
The department will measure temporary pedestrian surface by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1410.S	Temporary Pedestrian Surface Asphalt	SF
644.1420.S	Temporary Pedestrian Surface Plywood	SF

Payment is full compensation for providing, maintaining, and removing temporary pedestrian surface.
stp-644-010 (20150630)

70. Temporary Curb Ramp, Item 644.1601.S.

A Description
This special provision describes providing, maintaining, and removing temporary curb ramps.

B Materials
Furnish materials as follows:
- Asphaltic surface conforming to standard spec 465.2.
- engineer-approved ready mixed concrete or ancillary concrete conforming to standard spec 602.2 except no QMP is required.
- Commercially available prefabricated curb ramps conforming to Americans with Disabilities Act Accessibility Guidelines.

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

C Construction
Provide and maintain temporary curb ramps, including detectable warning fields, throughout the project duration. Place and compact a dense graded aggregate foundation before placing the curb ramp, unless the curb ramp is to be placed on existing roadway surface.

Remove and dispose temporary curb ramps and associated detectable warning fields when no longer required.

D Measurement
The department will measure temporary curb ramps by each individual ramp, 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
644.1601.S	Temporary Curb Ramp	Each

Payment is full compensation for providing, maintaining, and removing temporary curb ramps.
stp-644-020 (20150630)

71. Temporary Pedestrian Safety Fence, Item 644.1616.S.

A Description
This special provision describes providing, maintaining, and removing the temporary pedestrian safety fence.

B Materials
Furnish notched metal "T" or "U" shaped fence posts weighing 1 1/3 pounds per foot or more.

Furnish select 2x4 dimensional lumber.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1-inch min to 3-inch max
Resin/Construction:	High density polyethylene mesh
Tensile Yield:	Avg. 2000 lb per 4-ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4-ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

The engineer may allow prefabricated fencing systems conforming to Americans with Disabilities Act Accessibility Guidelines.

C Construction
Provide a continuous safety fence with the top edge free of sharp or rough edges.

Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 204.3 when no longer required.

D Measurement
The department will measure Temporary Pedestrian Safety Fence 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
644.1616.S	Temporary Pedestrian Safety Fence	LF

Payment is full compensation for providing, maintaining, and removing the temporary pedestrian safety fence.
stp-644-025 (20150630)

72. Pavement Marking Grooved Epoxy 4-Inch, Item 646.0107.S.

A Description
This special provision describes providing grooved standard epoxy pavement marking.

Conform to standard spec 646 as modified in this special provision.

B Materials
Furnish 20 mils standard epoxy pavement marking from the department's approved products list. Provide AAASHTO M247 Type I bead gradation at a drop rate of 22.5 to 25.0 pounds per gallon of epoxy.

C Construction
C.1 General

Plane the grooved lines as the plans show. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth
Cut the groove to a depth of 60 mils ±10 mils deep from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Linear Markings
Cut the groove 1-inch wider than the width of the pavement marking.

C.4 Groove Position
Position the groove edge as the plans show. If necessary, groove a minimum of 4-inches but not greater than 12-inches from both ends of the pavement marking segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning
C.5.1 Concrete
Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. Do not let slurry harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and before applying pavement marking. Clean and dry the groove before applying adhesive and placing pavement marking. Use a high-pressure air blower with at least 185 cubic feet per minute air flow and 90 psi air pressure to clean the groove.

C.5.2 Asphalt
Groove pavement five or more days after paving.

If opening an asphalt lane to traffic that is not grooved, place temporary pavement marking. For asphalt lanes not open to traffic, temporary pavement marking is not required.

If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 cubic feet per minute air flow and 90 psi air pressure to clean the groove.

D Measurement
The department will measure the Pavement Marking Grooved Epoxy bid items by the linear foot of line, 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
646.0107.S	Pavement Marking Grooved Epoxy 4-Inch	LF

Payment is full compensation for providing grooved epoxy marking; for removing existing or temporary marking; and for grooving, cleaning, and preparing the pavement surface.
stp-646-012 (20160607)

73. Removing Pavement Markings Water Blasting, Item 646.0690.S.

A Description
This special provision describes removing pavement markings by water blasting. Conform to standard spec 646 and 647 as modified in this special provision.

B (Vacant)

C Construction
Use water blasting to remove the following:

- Markings in areas of temporary traffic shifts.
- Markings on bridge decks.
- Temporary markings on the final pavement surface.
- Where existing pavement is to remain and existing markings are in conflict with the final condition.
- Other locations as shown on the plan or directed by the engineer.

Completely remove pavement marking using a truck mounted ultra-high pressure pump and water tank capable of delivering a minimum of 30,000 psi and up to 40,000 psi to waterjet nozzles. Use equipment with a vacuum recovery system that contains wastewater and debris to provide a clean, damp-dry surface, without a secondary cleanup operation. Do not scar or damage the pavement during the removal process. Limit water blasting to when the ambient temperature is at least 36 F and rising.

Properly dispose of the accumulated material off site.

D Measurement
The department will measure Removing Pavement Markings Water Blasting by the linear foot, up to a single 8-inch wide line, 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
646.0690.S	Removing Pavement Markings Water Blasting	LF

Payment is full compensation for removal and disposal of all materials.
stp-646-075 (20160607)

74. Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch, Item 646.0841.S; 8-Inch, Item 646.0843.S.

A Description
This special provision describes furnishing, grooving and installing preformed wet reflective pavement marking contrast tape for grooved applications as shown on the plans, according to standard spec 646, and as hereinafter provided.

B Materials

Furnish wet reflective pavement marking contrast tape and adhesive material, per manufacturer's recommendation if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking contrast tape.

Plane the grooved lines according to details in the plan and per manufacturer's recommendations. Use grooving equipment with a free-floating, independent cutting head. Plane a minimum number of passes to create a grooved surface per manufacturer's recommendations.

C.2 Groove Depth

Cut the groove to a depth of 120 mils ± 10 mils from the pavement surface or, if tined, from the high point of the tined surface. To measure the depth, the contractor may use a depth plate placed in the groove and a straightedge placed across the plate and groove, or the contractor may use a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and the pavement marking tape. Use a high-pressure air blower with at least 185 ft^3/min air flow and 120 psi air pressure to clean the

groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt
Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt
Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application
Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive

1. For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:
   - Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations.
   - Apply P-50 during October 1 to April 30, both dates inclusive. –

2. For the remainder counties:
   - Apply either adhesive.

Refer to the manufacturer's instructions for determining when the surface preparation adhesive is set.

Tamp the wet reflective pavement marking contrast tape with a tamper cart roller, with a minimum of a 200-lb load, cut to fit the groove. Tamp a minimum of three complete cycles (6 passes) with grooved modified tamper roller cart.

D Measurement
The department will measure Pavement Marking Grooved Wet Reflective Contrast Tape (Width) for grooved applications in length by the linear foot of tape, placed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF
646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; and for removing temporary pavement marking, if necessary.
646-022 (20120615)

75. Pavement Marking Grooved Contrast Wet Reflective Epoxy 4-Inch, Item 646.0842.S.

A Description

This special provision describes furnishing, grooving, and installing wet reflective epoxy pavement marking as shown on the plans, according to standard spec 646, and as hereinafter provided.

B Materials

Furnish a 20 mils application of an epoxy binder pavement marking, from the Wisconsin's Approved Products List, in a grooved slot. Provide a double drop system of 5.3 pounds per gallon of wet reflective elements from Wisconsin's Approved Products List and Utah Performance beads mixture at a drop rate of 12-22 pounds per gallon.

Replace standard spec 646.2.3 (1) with the following:

Furnish Utah Performance beads with the following gradation:

Utah Bead Gradation

US Mesh	Percent Passing (ASTM D1214)
18	65-80
20	
25	
30	30-50
40	
50	0-5

Beads shall achieve a minimum of 275 mcd (dry reading), initial for white and 180 mcd (dry reading) for yellow.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of the grooved wet reflective epoxy.

Plane the grooved lines according to details in the plan. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove. Remove lane line and center line pavement markings during the grooving process.

C.2 Groove Depth

Cut the groove to a depth of 80 mils ±10 mils from the pavement surface. The department may periodically check groove depths.

C.4 Groove Width – Longitudinal Markings

Cut the groove 1inch wider than the width of the pavement marking.

C.5 Groove Position

Position the groove edge according to Standard Detail Drawing Pavement Marking (Mainline). If necessary, groove a minimum of 4 inches from both ends of the pavement marking segment. Achieve straight alignment with the grooving equipment.

C.6 Groove Cleaning

C.6.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the marking. Use a high-pressure air blower with at least 185 ft^3/min air flow and 120 psi air pressure to clean the groove.

C. 6.2 Asphalt

Groove pavement five or more days after paving.

If opening to traffic an asphalt lane that is not grooved, place temporary pavement marking. For asphalt lanes not open to traffic, temporary pavement marking is not required.

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

D Measurement
The department will measure Pavement Marking Grooved Wet Reflective Epoxy (width) bid items by the linear foot of line, acceptably completed.

The department will measure Pavement Marking Grooved Contrast Wet Reflective Epoxy (width) bid items by the linear foot of line, 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
646.0842.S	Pavement Marking Grooved Contrast Wet Reflective Epoxy 4-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the epoxy, 3M elements and beads; and for removing existing or temporary marking, if necessary.
stp-646-024 (20170227)

76. Pavement Marking Late Season, Item 646.0900.S.

A Description
This special provision describes providing and maintaining late season pavement marking as specified in standard spec 646.3.1.4.

B Materials
Use any pavement marking material from the department's approved products list.

C Construction
Provide and maintain late season marking conforming to standard spec 646.3.1.

D Measurement
The department will measure Pavement Marking Late Season by the linear foot of 4-inch wide line, acceptably completed. The department will not measure work required because of delays that are not the department's responsibility under standard spec 108.10.3.

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

ITEM NUMBER	DESCRIPTION	UNIT
646.0900.S	Pavement Marking Late Season	LF

Payment for Pavement Marking Late Season is full compensation for providing, maintaining, and removing late season temporary marking; and for resealing areas of

protective surface treatment on structures as required in standard spec 646.3.1.1. All costs for late season marking required because of delays that are not the department's responsibility under standard spec 108.10.3 are incidental to the contract.
stp-646-010 (20110615)

77. General Requirements of Electrical Work.

Amend standard spec 651.2, Materials, by adding the following paragraphs:

(7) The approved products list is located at:
http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/prods/qpl.aspx

Replace standard spec 651.3.2 (1) with the following:

Perform all electrical work using a journey worker electrician. Before performing electrical work, provide the documentation specified in standard spec 651.3.2(3) to the engineer proving that the electrician's performing the work have attained status as journey worker.

78. Install Conduit Into Existing Item, Item 652.0700.S.

A Description
This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials
Use 3-duct, 2-inch HDPE conduit, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

C Construction
Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for the entering conduit(s) at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement
The department will measure Install Conduit Into Existing System by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	Each

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.
stp-652-070 (20100709)

79. Underdeck Lighting (B-53-0332), Item 659.0600.003; Underdeck Lighting (B-53-0333), Item 659.0600.004.

Modify standard spec 659.2, Materials, to include the following:

(2) For underdeck lighting, furnish vandal guards consistent with the make, model and number of underdeck luminaires.

80. Intelligent Transportation Systems – General Requirements.

A Description

A.1 General

This contract includes furnishing and installing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as shown on the plans.

Unusual aspects of this project include:

1. The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment prior to installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16-inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in

the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. **Electrical Power:**
    a. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
    b. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
    c. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
5. **Temperature and Humidity:**
    a. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
    b. **Equipment in Controlled Environments** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber

optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable(s) entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage, and clamp the voltage between each wire and ground at 50 volts.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for the labeling method(s) prior to use.

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Statewide Traffic Operations Center or in communication hubs, which are not contained within a single cabinet, shall have at least 10 feet of slack.

C.4 System Operations
If the contractor's operations unexpectedly interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

C.5 Surge Protection
Arrange the equipment and cabinet wiring to minimize the distance between each conductor's point of entry and its protector. Locate the protector as far as possible from electronic equipment. Ensure that all wiring between the surge protectors and the point of entry is free from sharp bends.

D Measurement
No separate measurement will be made for the work described in this article.

E Payment
No separate payment will be made for the work described in this article. All work described in this article shall be included under the ITS items in the contract.
stp-670-010 (20100709)

81. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality
Supplement standard spec 106.2 with the following:

Existing equipment shall be salvaged and reinstalled by the contractor. This equipment includes the following:

Salvaged Items: ID 1003-10-84
(2) Solar Powered Bluetooth Sensor
(3) Microwave Detectors
(1) 30-ft Wood Pole
(1) Pole Type 5
(1) Lighting Arresters

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items
(1) Solar Power System for ITS Detectors
(10) Microwave Detectors
(1) 50-ft Camera Pole
(2) 5.8 GHz IP Radio
(2) Terminal Server – 4 Port

Contact Dean Beekman, State Traffic Operations Center (STOC), at (414) 227-2154 to obtain a copy of the manufacturer list and contact names for department-furnished equipment.

Pick-up small department-furnished equipment from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Large department-furnished equipment, such as camera poles will be delivered by the supplier to a contractor-controlled site within Rock County. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract's Notice to Proceed.

Transportation of the equipment between the electric shop and the field or interim location(s) shall be the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials
Supplement standard spec 106.3 with the following:

Design/Shop Drawings
Prior to the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 calendar days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 calendar days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 calendar days. At this time, the review and approval cycle described above will begin again.

82. Field System Integrator, Item 670.0100 and ITS Documentation, Item 670.0200.

Add the following to standard spec 670.5:

Payment is full compensation for projects 1003-10-84 and 1005-10-76.

83. Intelligent Transportation Systems – Conduit.

Add the following to standard spec 671.2:

671.2.4 Locate Wire
Furnish and install a No. 14 AWG stranded copper wire for future locate purposes through each conduit run. Connect the locate wire by using a wire nut at each pull box, manhole, or other access point. Alternatively, use a single wire through the access points. All material furnished under this item shall meet the requirements of standard spec 655.
stp-671-005 (20150630)

84. Install Pole Mounted Cabinet, Item 673.0225.S.

A Description

This special provision describes installing aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

Pole mounted cabinets will be salvaged from the project. These cabinets include attached plaques sequence identification and electrical service breaker disconnect box.

Use stainless steel bolts, nuts, and washers unless otherwise specified.

All conductors, terminals, and parts that could be hazardous to maintenance personnel shall be protected with suitable insulating material.

The cabinet will be equipped with service panels. Two panels shall be provided and mounted on the cabinet sidewalls. The left side panel shall be designated as "Input/Communications," and the right side panel shall be designated as the "Service Panel."

The service panel will be equipped with a four-outlet handi-box. Wire the handi-box to the series portion of the filtering surge protector.

Use metallic conduit, fittings, and adapters required from the underground conduit transition point to the cabinet as part of this item. A typical installation requires on 2-inch conduit. Use metallic conduit according to standard spec 652.

C Construction

Fasten the field cabinet securely onto a pole. Provide bolted stainless steel connections with lock washers, locking nuts, or other engineer-approved means to prevent the connection nuts from backing off. Isolate dissimilar materials from one another using stainless steel fittings. Make all power connections to the cabinet as specified in standard spec 656.

Drill and tap the cabinet, as necessary, to mount the terminal blocks and other attachments to the service panel, to provide an entrance on the back of the cabinet for cable from the pole mounted intelligent transportation systems equipment, and to mount the service panel to the cabinet as shown in the details. Remove all sharp edges or burrs, or both, caused by the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

Install metallic conduit on the exterior of the pole (for entrance to the cabinet from the ground) as shown in the plans, and according to the applicable requirements of standard spec 652.

D Measurement

The department will measure Install Pole Mounted Cabinet as each individual assembly, 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
673.0225.S	Install Pole Mounted Cabinet	Each

Payment is full compensation for installing the pole mounted cabinet, including the attached plaques sequence identification and electrical service breaker disconnect box; for making all connections and conduit/wire entrances; and for all testing.

85. Install Ethernet Switch, Item 675.0400.S.

A Description
This special provision describes installing an Ethernet switch or terminal server, and providing all necessary associated wiring.

B Materials
The Ethernet switches will be slaved from the project. The department will furnish the terminal servers. Provide all necessary cables between the Ethernet switch or terminal server and other devices.

C Construction
Install the Ethernet switch or terminal server in a new or existing field cabinet. Connect it to devices as shown on the plans, or as directed by the engineer.

D Measurement
The department will measure Install Ethernet Switch by the unit, installed according to the contract, tested, and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
675.0400.S	Install Ethernet Switch	Each

Payment is full compensation for installing an Ethernet switch or terminal server; furnishing all necessary incidental hardware; and making all necessary connections.

86. Concrete Pavement Flexural Strength.

This special provision describes accepting concrete pavement based on flexural strength. Conform to standard spec part 7 as modified in this special provision.

Add the following to standard spec table 701-2:

TEST	TEST STANDARD
Flexural Strength of Concrete	AASHTO T97

Replace standard spec 710.5.5 with the following:

710.5.5 Strength

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

(2) Provide facilities for initial curing. For up to 48 hours after casting, maintain the temperature adjacent to the specimens in the range of 60 to 80 F and prevent moisture loss. Between 24 and 48 hours after casting, transport the specimens to a department-qualified laboratory for standard curing until testing at 28 days.

(3) Determine the 28-day strength of each specimen in psi. Test each specimen to failure. Use a testing machine that automatically records the date, time, rate of loading, and maximum load of each specimen. Provide a printout of this information for each specimen tested.

Replace standard spec 715.2.1(2) *with the following:*

(2) The contractor need not provide separate laboratory mix designs for high early strength concrete nor provide routine 28-day strength tests during placement for high early strength concrete.

Replace standard spec 715.2.3.1(1) *with the following:*

(1) Use at least 5 pairs of beams to demonstrate the flexural strength of a mix design. Use either laboratory strength data for new mixes or field strength data for established mixes. Demonstrate that the 28-day flexural strength of the proposed mix will equal or exceed the 85 percent within limits criterion specified in standard spec 715.5.2.

Replace standard spec 715.3.1.1(1) *with the following:*

(1) Provide slump, air content, concrete temperature, and strength test results as specified in 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each sublot. Cast 3 specimens for strength evaluation.

Replace standard spec 715.3.1.3(1) *with the following:*

(1) The department will perform verification testing for air content, slump, temperature, and strength at a minimum of 1 verification test per lot.

Replace standard spec 715.3.2.1 with the following:

715.3.2.1 General

(1) The department will make pay adjustments for strength on a lot-by-lot basis using the strength of contractor QC specimens. The department will use flexural strength for pavements and compressive strength for structures. The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer approved non-shrink grout, and provide traffic control during coring.

(2) Randomly select 2 QC strength specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
- If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

Replace standard spec 715.3.2.2.1 with the following:

715.3.2.2.1 Pavement

(1) If a sublot strength is less than 500 psi, the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal. Cut and test cores according to AASHTO T24 as and where the engineer directs. Have an HTCP-certified PCC technician I perform or observe the coring.

(2) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi or greater or the engineer does not require coring.

(3) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

Replace standard spec 715.5.1 with the following:

715.5.1 General

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

ITEM NUMBER	DESCRIPTION	UNIT
715.0415	Incentive Strength Concrete Pavement	DOL
715.0502	Incentive Strength Concrete Structures	DOL

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Pavement and Disincentive Strength Concrete Structures administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to the lower specification limit of 650 psi for pavements and 4000 psi for structures. The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under standard spec 715.3.1.2.1.

(5) Submit strength results to the department electronically using the MRS software. The department will validate contractor data before determining pay adjustments.

(6) All coring and testing costs under standard spec 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

Replace standard spec 715.5.2 with the following:

715.5.2 Pavements

(1) The department will adjust pay for each lot using equation "QMP 6.01" as follows:

Percent within Limits (PWL)	Pay adjustment (dollars per square yard)
≥ 95 to 100	(0.2 x PWL) - 19
≥ 85 to < 95	0
≥ 50 to <85	(2.0/35 x PWL) - 170/35
<50	-2

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 600 psi by $2 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

87. Seismograph, Item 999.1000.S.

A Description
This special provision describes furnishing a seismograph(s) and employing trained operators to monitor construction-induced vibrations on buildings/structures, and submittal of all required documentation.

B Material
Use seismographs conforming to Wisconsin Department of Safety and Professional Services (SPS) 307.43, Wisconsin Administrative Code that are continuous data recorders supplied with all the accessories necessary for making vibration and noise monitoring observations.

C Construction
Conduct monitoring procedures conforming to SPS 307.44 and as follows: Take seismograph readings prior to construction activities to establish an ambient or background index.

During construction, place seismograph to monitor all vibration-inducing construction activities or as directed by the engineer. At a minimum utilize one seismograph. If more than one major construction activity per day is taking place, multiple seismographs may be required. Place the seismograph on a stable surface within 3 feet of the building/structure nearest to the construction operation. Provide data recorded for each vibration occurrence to the engineer which includes the following:

1. Identification of vibration monitoring instrument used.
2. Description of equipment used by the contractor.
3. Name of qualified observer and interpreter.
4. Distance and direction of recording station from the vibration area.
5. Type of ground at recording station and material on which the instrument is sitting.
6. Peak particle velocity and principal frequency in each component.
7. A dated and signed copy of records of seismograph readings.
8. A comparison of measured seismograph readings to maximum allowable readings identified in SPS 307.43 or as specified in this special provision.

If construction activities generate ground vibration in excess of the peak particle velocity limits as shown in SPS 307.44, stop the construction operation in progress and implement alternate construction methods to produce results within the allowable peak particle velocity limits.

D Measurement
The department will measure Seismograph as a single complete 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
999.1000.S	Seismograph	LS

Payment is full compensation for furnishing and operating a seismograph(s), any operator(s), and for producing documentation reports
stp-999-005 (20161130)

88. Crack and Damage Survey, Item 999.1500.S.

A Description
This special provision describes conducting a crack and damage survey of the residences located at:

Palmer House Apartments, 3007 Palmer Drive
110 Valley Drive (outbuilding)
229 Sioux Court
201 Sioux Court
3004 Ruger Avenue
3003 Ruger Avenue
407 Stafford Drive
1035 Somerset Drive
1111 Somerset Drive
3002/3004 Mt. Zion Avenue
1170 Ontario Drive (pool)

This Crack and Damage Survey shall consist of two parts. The first part, performed prior to construction activities, shall include a visual inspection, photographs, and a written report describing the existing defects in the building(s) being inspected. The second part, performed after the construction activities, shall also include a visual inspection, photographs, and written report describing any change in the building's condition.

B (Vacant)

C Construction
Prior to any construction activities, thoroughly inspect the building structures for existing defects, including interior and exterior walls. Submit a written report of the inspector's name, date of inspection, descriptions and locations of defects, and photographs. The intent of the written report and photographs is to procure a record of the general physical condition of the building's interior and exterior walls and foundation. The report shall be typed on bond paper and be in text form.

The photographs shall be taken by a professional photographer capable of producing sharp, grain free, high-contrast colored pictures with good shadow details. The photographs shall be 3½ inch by 5 inch color prints, glossy, and mounted in protective storage pages with clear slip-in pockets and clear background. Each sheet shall hold four prints. The back of each photograph shall contain the following information:

ID _____
Building Location _____
View looking _____
Date _____
Photographer _____

Prior to the start of any construction activities pertinent to this survey, submit a copy of the written report and photographs to the engineer.

After the construction activities are complete, conduct another survey in the same manner, take photographs, and submit another written report to the engineer.

In lieu of photographs, a professional videographer may be hired to use a video camera capable of producing a video with the clarity required to perform this work.

D Measurement
The department will measure Crack and Damage Survey as single complete unit of work.

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

ITEM NUMBER	DESCRIPTION	UNIT
999.1500.S	Crack and Damage Survey	LS

Payment is full compensation for providing the before and after written reports, and for photographs or video.
stp-999-010 (20130615)

89. Subsoiling, Item SPV.0005.001.

A Description
This special provision describes subsoiling designated areas as shown on the plans or as directed by the engineer, and as hereinafter provided.

B (Vacant)

C Construction
Subsoil the designated area as shown in the plans or as directed by the engineer after topsoil placement. Schedule a 500 square foot test area and demonstrate competence to the engineer for either swale and slope subsoiling, or basin subsoiling, prior to continuing operations. The engineer shall identify the test area. Loosen subsoiled areas to a depth of 20 inches of the in-place material and placed topsoil. After obtaining approval by the engineer that the equipment and methods are sufficient to perform the work, complete the subsoiling operation for the designated areas within the project. Work done without the engineer's approval will be considered as unauthorized work.

Create subsoiling channels with a commercially available, multi-shanked implement attached to track-type equipment. There shall be a minimum of two shanks on the equipment, with each shank located behind a track so that the soil is loosened after it is tracked. Do not pull the shanks through previous channels, but instead create multiple channels. The equipment shall be capable of exerting a penetration force necessary for the site. No disc cultivators, chisel plows, or spring-loaded equipment will be allowed. Space the grid channels 24 to 30 inches apart, depending on equipment, site conditions, and the plan. The channel depth shall be to a minimum of 20 inches. If soils are saturated, delay operations until the soil dries to field capacity or less. Field capacity is the amount of water retained in the soil after it has been saturated and allowed to drain freely.

C.1 Swale and Slope Subsoiling
Complete subsoiling in three passes for each ten feet of swale width. On erodible slopes steeper than 6 horizontal to 1 vertical (6:1), work at right angles to the direction of surface drainage whenever practical.

C.2 Basin Subsoiling
Perform the subsoiling in two sets of passes to form a two-directional (90°) grid.

C.3 Exceptions
Area exceptions to subsoiling include areas within the drip line of any existing trees, over utility installations within 30 inches of the surface, when trenching/drainage lines are installed, where compaction is by design (abutments, footings or inslopes steeper than 4:1), and inaccessible slopes, as approved by the engineer. In cases where exceptions occur, observe a minimum setback as directed by the engineer.

C.4 Finish grading
Upon completion and acceptance of the subsoiled area, finish grade topsoil as described in standard spec 625.3.3, except that only light-weight equipment as approved by the engineer may be used. Drive no other equipment over the subsoiled area after the topsoil has been finish-graded. Any subsoiled areas that are re-compacted shall be subsoiled and finish-graded at no expense to the department

D Measurement
The department will measure Subsoiling by the acre of area, 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.0005.001	Subsoiling	ACRE

Payment is full compensation for subsoiling designated areas shown on the plans or as directed by the engineer; and providing finished grading operations of these subsoiled areas. (1/5/2017)

90. 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 providing and placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation, or excavation for structure sections; or 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 providing material from roadway excavation or borrow material; and for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments.

The department will pay for all work associated with select borrow material separately as specified under the Select Borrow bid item.

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 628.5.1.
(10/31/2016)

ASP-5 will be applied to this item. The Fuel Usage Factor for this item is 0.23.

91. Roadside Infiltration Ditch Granular Backfill Sand, Item SPV.0035.002.

A Description
This special provision describes furnishing and placing roadside infiltration ditch granular backfill sand as shown on the plans and as hereinafter provided.

B Materials
Furnish sand consisting mostly of Silica (SiO2), but sand consisting of dolomite or calcium carbonate may also be used. Manufactured sand or stone dust is not allowed. Wash the sand to remove clay and silt particles, and well drain prior to use.

Furnish roadside infiltration ditch granular backfill sand conforming to the applicable requirements of subsection 209.2 of the standard specifications with the following gradation limits:

SIEVE SIZE	PERCENT PASSING (by weight)
3/8-Inch	100
No. 4	90-100
No. 16	45-85
No. 50	5-30
No. 100	0-10

C Construction
C.1 Construction Site Stabilization
Prevent construction site runoff from disturbed areas from entering and contaminating the roadside infiltration ditch.

Divert runoff from pervious areas away from the infiltration ditch until the pervious areas have undergone final stabilization. Include how this diversion will be accomplished as part of the Erosion Control Implementation Plan (ECIP) submittal.

Final stabilization is the condition achieved on pervious areas when uniform perennial vegetative cover has been established with a density of at least 70 percent.

If runoff from disturbed areas enters and contaminates the roadside infiltration ditch, restore the affected areas to their condition prior to the runoff contamination at no additional cost to the department.

C.2 Suitable Weather

Suspend roadside infiltration ditch construction operations during periods of rainfall or snowmelt. Suspend roadside ditch infiltration construction if ponded water is present or if residual soil moisture contributes significantly to the potential for soil smearing, clumping or other forms of compaction.

C.3 Preparation of Roadside Infiltration Ditch Prior to Backfilling with Roadside Infiltration Ditch Granular Backfill Sand

As detailed in the plans, excavate the roadside infiltration ditch to a depth so as to completely remove the existing topsoil, clay layers and soils not conducive to infiltration to a depth of 6-inches below the top of the existing sand and gravel strata. The depths of the above soils to be excavated vary. Subsurface exploration soil boring reports are available from the Wisconsin Department of Transportation–Southwest Region by contacting Hassen Hassen, I-39 Geotechnical Engineer, (608) 884-7490.

Payment for work described under section C.3 of this article is paid for under bid item Excavation Common.

C.4 Placement of Roadside Infiltration Ditch Granular Backfill Sand

Place roadside infiltration ditch granular backfill sand on top of the existing exposed sand and gravel strata within the same calendar day of exposing the sand and gravel strata. Place roadside infiltration granular backfill sand in lifts up to 3 feet in depth.

Lightly compact the roadside infiltration ditch granular backfill sand by lightly tamping the material. Compacting using vibrating-style plate compactors or other vibratory compactors are not allowed.

C.5 Compaction Avoidance

During the roadside infiltration ditch construction, cordon off the area dedicated to the roadside infiltration ditch to prevent access by equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires. Acceptable equipment for constructing the infiltration ditch includes light equipment with turf type tires and/or marsh equipment or wide-track loaders.

Avoid compaction during the preparation of the roadside infiltration ditch and placement of the roadside infiltration ditch granular backfill sand, beyond that allowed in section C.4. Placement of Roadside Infiltration Ditch Granular Backfill Sand."

Avoid smearing of the exposed sand and gravel strata along the bottom of the roadside infiltration ditch and the roadside infiltration ditch granular backfill sand layer.

C.6 Compaction Remediation
If compaction occurs, beyond that allowed in section C.4 "Placement of Roadside Infiltration Ditch Granular Backfill Sand", re-fracture the soil to a depth of at least 12 inches. If smearing occurs, correct the smeared areas of the interface by raking or rototilling. Restore compacted or smeared areas at no additional cost to the department.

D Measurement
The department will measure Roadside Infiltration Ditch Granular Backfill Sand by the cubic yard acceptably completed in its final position.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.002	Roadside Infiltration Ditch Granular Backfill Sand	CY

Payment for roadside infiltration ditch granular backfill sand is full compensation for preparing the foundation; for providing, stockpiling, loading, hauling, and placing the material; and for providing necessary protection from construction site stormwater runoff.

92. Compost, Item SPV.0035.100.

A Description
This special provision describes furnishing and installing compost as shown on the plans or as directed by the engineer and as hereinafter provided.

B Materials
Provide compost that:

1. Is a well-decomposed, stable, weed-free, organic, commercially manufactured material resulting from the biological degradation and transformation of plant or animal-derived materials under controlled conditions designed to promote aerobic decomposition.
2. Is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
3. Is stable with regard to oxygen consumption and carbon dioxide generation.
4. Does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
5. Does not possess objectionable odors.

6. Has a moisture content with no visible free water or dust produced when handling the material.

Compost feedstock may include, but is not limited to, yard waste, clean chipped wood, farm crop residue, farm animal manure, or vegetable food waste. Do not use materials that have been treated with chemical preservatives as a compost feedstock or as wood chips.

Test according to the United States Composting Council's "Test Methods for Examining of Composting and Compost (TMECC)". Provide compost with the United States Composting Council's Seal of Testing Assurance Program (STA) certification and STA product label. The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Provide quality control documentation that includes the following:

1. The compost technical data sheet with the feedstock by percentage in the final compost product.
2. A certification that the compost meets federal and state health and safety regulations.
3. A copy of the producer's STA certification.
4. A certified report of tests performed by an STA-certified lab, verifying that the compost meets the requirements in the table below.

Compost must comply with the following:

PROPERTY	TEST METHOD	REQUIREMENT
Particle Size	*TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis	100% Passing, 3 inch 90 – 100% Passing, 1 inch 65 – 100% Passing, 3/4in 0 – 75% Passing, 1/4 inch Maximum length 6 inches
pH	TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units	6.0-8.0
Soluble Salts	TMECC 04.10-A Electrical Conductivity 1:5 Slurry Method dS/m (mmhoscm)	Below 5.0
Moisture Content	TMECC 03.09-A Total Solids & Moisture at 70+/- 5 deg C % Wet Weight Basis	35-50
Organic Matter Content	TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis	Minimum 40% Max 60% ash content
Maturity	TMECC 05.05-A	80 or Above

PROPERTY	TEST METHOD	REQUIREMENT
	Germination and Vigor "Germination and Root Elongation" Seed Emergence Seedling Vigor % Relative to Positive Control	
Physical Contaminants	TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal %>4mm fraction, dry mass (weight) basis	Less than 1%
Pathogens	Shall meet Class A requirements for pathogens as specified in NR 204.07(6)(a)	Pass
Chemical Contaminants	Shall meet pollutant concentrations as specified in NR 204.07(5)(c)	Pass
Carbon to Nitrogen Ratio	C:N	10:1 – 20:1

*TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Immediately remove from the project, compost not conforming to the above requirements or taken from a source other than those tested, and replace the compost at no cost to the department.

The engineer reserves the right to sample compost at the jobsite.

C Construction

C.1 Compost Application

Apply compost to a uniform depth of 6 inches. Apply compost using an engineer-approved spreader unit (i.e. bulldozer, side discharge manure spreader, etc.) or preferably a pneumatic (blower) unit or other unit that propels the product directly at the soil surface. Apply compost approximately 3 feet beyond and overlapping all edges of the bare soil surfaces designated to receive the compost. Do not apply compost in the months of July and August unless approved by the engineer. Compost installations will retain solar energy, heating the compost beyond the tolerance of the seed, rendering it unviable. Reapplication of seed will be required if sufficient vegetation is not established.

C.2 Maintenance

Maintain compost blanket depth until the project has been completed or directed otherwise. Routinely inspect blanket for any material dislodgement. Replace and redress any dislodged material and reseed if necessary. If rutting occurs, regrade after re-subsoiling.

D Measurement
The department will measure Compost by the cubic yard of material, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.100	Compost	CY

Payment is full compensation for loading, hauling, stockpiling, blending, and placing compost.

93. High Performance Concrete (HPC) Masonry Structures, Item SPV.0035.700.

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502, and 509, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

MODIFY THE STANDARD SPECIFICATIONS AS FOLLOWS:

501.2.5.4.1 General
(1) The department will sample and test aggregates as follows:
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
Lightweight Pieces[1]……. AASHTO T 113

[1]Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces by dividing the weight of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

(2) Contact the engineer a minimum of 4 weeks prior to placing concrete to collect a sample of aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

(3) The department will randomly sample coarse aggregate for lightweight pieces testing at least once at least once per 10,000 cubic yards during HPC structure concrete production.

(4) Use clean, hard, durable crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.

(5) Use virgin aggregates only.

501.2.5.4.2 Deleterious Substances
Replace paragraph one with the following:

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
Lightweight Pieces	2.0

501.2.5.4.3 Physical Properties
Replace paragraph one with the following:

The percent wear must not exceed 35, the weighted soundness loss must not exceed 6 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

501.3.2.4.3.3 Extended Delivery Time
Delete paragraph one.

501.3.5.1 General
Replace paragraph one with the following:

Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work under this special provision.

501.3.5.2 Delivery
Replace paragraph three with the following:

Deliver and completely discharge concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60° F or the use of department-approved retarders does not increase the discharge time.

501.3.7.1 Slump
Replace the entire text with the following:

Use a 2-inch to 4-inch slump.

Perform the slump tests for concrete according to AASHTO T 119.

501.3.8.2.1 General
Replace the entire text with the following:

The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions the contractor will take to control concrete temperature if the concrete temperature at the point of placement exceeds 80° F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 80° F, do not place concrete for items covered in this special provision.

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80° F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

The department will pay $0.75 per pound for the quantity of ice required to reach a target temperature of 75° F if the following conditions are met:

The un-iced concrete temperature exceeds 80° F.

The contractor has performed the actions outlined in the contractor’s accepted temperature control plan.

The contractor elects to use ice.

501.3.8.2.2 Bridge Decks
Replace the entire text with the following:

Do not place concrete for bridge decks when the ambient air temperature is above 80° F.

For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions the contractor will take to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer’s written acceptance of that evaporation control plan. Perform the work as outlined in the evaporation control plan.

If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.

Provide evaporation rate predictions to the engineer 24 hours prior to each bridge deck pour.

Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in CMM 5.25, figure 1. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.

At least 8 hours before each pour, the engineer will inform the contractor in writing whether or not to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the sole discretion of the engineer, the contractor may be allowed to implement immediate corrective action and complete the pour.

502.3.5.4 Superstructures
Delete paragraph five.

502.3.7.8 Floors
Delete paragraphs 13, 14 and 15.

Add the following to the end as paragraphs 19, 20 and 21:

(19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.

(20) Hand finishing, except for the edge of deck, must be kept to a minimum. The finishing machine must be equipped with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck immediately following the micro texture.

(21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

502.3.8.1 General
Replace paragraph one with the following:

Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

502.3.8.2.1 General
Replace the entire text with the following:

Wet cure the concrete for bridge decks, sidewalks and raised medians for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently so as to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is completely covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.

Do not uncover any portion of the deck at any time for any reason during the first seven days of the curing period.

Set up and test the fogging system before each bridge deck, raised median and sidewalk pour. The fogging system must remain set up and in operating condition for the duration of the pour.

502.3.8.2.3 Decks
Delete the entire text.

502.3.8.2.4 Parapets
Replace the entire text with the following:

Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least seven days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.9.

Secure coverings along all edges to prevent moisture loss.

502.3.9.6 Bridge Decks
Replace paragraph two with the following:

Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32° F during the cold weather protection period. Maintain a minimum temperature of 40° F in the enclosed area under the deck for the entire 14-day curing period.

502.5.1 General
Replace paragraph one with the following:

The department will pay for plan quantities according to standard spec 109.1.1.2 at the contract unit price and incidentals necessary to complete the work under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.700	High Performance Concrete (HPC) Masonry Structures	CY

710.5 Sampling and Testing
Add the following:

710.5.7 Chloride Penetration Resistance
(1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T 277 (Rapid Chloride Permeability Test) at a frequency of 1 test per 3 months (quarterly) of production.

(2) Permeability samples for AASHTO T 277 testing must be stripped of their molds and wet cured to an age of seven days in a standard moist room or water tank. After seven days, submerge the samples in water heated to 100° F until an age of 28 days. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T 277.

(3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on the AASHTO T 277 Rapid Chloride Permeability test. Chloride resistance testing conducted quarterly using AASHTO T 277 Rapid Chloride Permeability Test during production will not be used for acceptance of previously accepted mixes and concrete masonry mixed and placed according to the contract requirements. For quarterly chloride resistance test results exceeding 1500 coulombs, the department may require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

715.2.3.2 Structures
Replace paragraph one with the following:

(1A) Develop and test each mix to be used for HPC Masonry Structures. Produce a laboratory trial mix for each mix, as well as a trial mix from each plant used to supply the project. Test all mixes at a department-qualified laboratory.

(1B) The laboratory trial mix data must include the results of the following tests:
1. AASHTO T 119 Slump of Hydraulic Cement Concrete.
2. AASHTO T 121 Mass per Cubic Foot, Yield.
3. AASHTO T 152 Air Content.
4. AASHTO T 22 Compressive Strength.

5. AASHTO T 277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to standard spec 710.5.7 (2) herein.
6. AASHTO T 309 Temperature.
7. Water Cement Ratio.

(1C) The 28-day compressive strength must be greater than or equal to 4000 psi. The 28-day results of the permeability test must be less than or equal to 1500 coulombs.

Replace paragraph two with the following:

(2) Provide a minimum cementitious content of 470 pounds per cubic yard and a maximum cementitious content of 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, conform to one of the following:

1. Use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes use 15% to 30% fly ash or 20% to 30% slag. For ternary mixes use 15% to 30% fly ash plus slag in combination. Percentages are stated as percent by weight of the total cementitious material in the mix.

Use a type IP or IS blended cement.

94. 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.

Procurement Activity
Procurement activities are activities of duration reflecting contractor preparation and submittal of material submittals, department approval of material submittals, material fabrication durations, and material delivery durations.

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.

Contactor 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, material 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 the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following DOT e-mail boxes; DOTDTSDSWMEGASCHEDULERS@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, material 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 and submit an anticipated cash-flow curve for the project within the P6 application, 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 an electronic PDF 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 the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and 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 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), the electronic file (PDF), responses to the DOT review comments, and the progress schedule update narrative to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@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
     - a. MSE Walls
     - b. Other Wall Types
   - 1.3 Bridge Construction
     - a. Foundation Pile – EACH per week
     - b. Foundation/Substructure Concrete – CY per week
     - c. Structural Steel Girders – EACH per week
     - d. Prestressed Concrete Girders – EACH per week
     - e. Deck Formwork – SF per week
   - 1.4 Roadway Excavation – CY per week
   - 1.5 Roadway Embankment – CY per week
   - 1.6 Roadway Structural Section
     - a. Grading/Subgrade Preparation – SY per week
     - b. Base Material Placement – TON per week
     - c. Base Material Subgrade Preparation – SY per week
     - d. Asphaltic Base – TON per week
     - e. Asphaltic and HMA Pavements – TON per week
     - f. Concrete Pavement – SY per week
     - g. 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

The information below is to be applied in compliance with standard spec 108.9 and 108.10 and does not replace the above mentioned specifications. To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative document separate from the monthly schedule update narrative document that specifically details the work added or deleted and the other activities affected and or impacted based on the latest accepted CPM Monthly Update. For added work including impact delay activities, submit a proposed fragment of activities to be added or revised in the CPM schedule, indicating how the fragment 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.

95. Cover Plates Permanent, Item SPV.0060.003.

A Description

This special provision describes furnishing and installing a steel plate to cover and support embankment loading at endwalls and similar structures during grading operations, asphaltic pavement and traffic loading at manholes, inlets and similar structures.

B Materials

Provide a 0.50-inch minimum thickness steel plate that extends, at a minimum, to the outside edge of the existing concrete structure.

C Construction

Install the cover plate to the structure securely using stainless steel anchors. Do not cover the plate until the engineer examines the installation.

D Measurement
The department will measure Cover Plates Permanent, acceptably completed in place, as each individual unit.

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	Cover Plates Permanent	Each

Payment is full compensation for furnishing and installing the cover plates.

The steel plates become the property of the department when no longer needed in the contract work.

96. Access Gate 3-Foot Polymer-Coated, Item SPV.0060.004.

A Description
This special provision describes furnishing and erecting polymer-coated access gates per the plan detail at locations shown on the plans or as directed by the engineer, and as hereinafter provided.

B Materials
Furnish a polymer-coated round steel pipe tubing gate that has a minimum of 6 horizontal rails. Overall dimensions shall be a minimum of 48-inches tall and a minimum of 30-inches wide. Dimensions between horizontal rails, overall vertical height, and overall horizontal width can vary slightly from the plan detail if approved by the engineer.

Gate will have round, heavy steel pipe tubing with a minimum outside diameter of 1-3/4 -inches constructed of a minimum 20 gauge thickness and polymer-coated

Provide Grade "A" Concrete Masonry according to standard spec 501 to set 6-inch diameter x 8-foot treated wood gate posts.

Provide zinc-coated bolts, nuts and washers that are according to ASTM Designation A325.

Provide polymer-coating over zinc-coating on all components that conforms to ASTM F626 and F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction
Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off

the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the Owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

Install the gate according to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement
The department will measure Access Gate 3-Foot Polymer Coated as each individual unit, acceptably installed and completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.004	Access Gate 3-Foot Polymer Coated	Each

Payment is full compensation for fabricating, galvanizing and polymer-coating all gate components including gate, hardware, latch chain and gate posts and transporting to jobsite; for erecting components to create a polymer-coated gate, including any touch-up and repairs, welding and concrete masonry.

97. Access Gate 4-Foot, Item SPV.0060.005; Access Gate 6-Foot, Item SPV.0060.007; Access Gate 3-Foot, Item SPV.0060.010.

A Description
This special provision describes furnishing and erecting access gates (size) per the plan detail at locations shown on the plans or as directed by the engineer, and as hereinafter provided.

B Materials
Furnish a round steel pipe tubing gate that has a minimum of 6 horizontal rails. Overall dimensions shall be as follows:

Item Number and Description	Minimum Height	Minimum Width
SPV.0060.005 Access Gate 4-Foot	48-Inches	42-Inches
SPV.0060.007 Access Gate 6-Foot	48-Inches	66-Inches
SPV.0060.010 Access Gate 3-Foot	48-Inches	30-Inches

Gate will have round, heavy steel pipe tubing with a minimum outside diameter of 1-3/4 -inches constructed of a minimum 20 gauge thickness. Steel pipe tubing shall be painted. The paint color shall be either green or gray.

Provide Grade "A" Concrete Masonry according to standard spec 501 to set 6-inch diameter x 8-foot treated wood gate posts.

Provide zinc-coated bolts, nuts and washers that are according to ASTM Designation A325.

C Construction
All field welded surfaces shall have all paint removed and be properly cleaned prior to welding. After welding is complete, surface shall be primed with premixed rustproof paint followed by two field coats of enamel paint.

D Measurement
The department will measure Access Gate (size) as each individual unit, acceptably installed and completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.005	Access Gate 4-Foot	Each
SPV.0060.007	Access Gate 6-Foot	Each
SPV.0060.010	Access Gate 3-Foot	Each

Payment is full compensation for furnishing and installing all materials including the gate, welding, hardware, latch chain, gate posts, and concrete masonry. The department will supply the keyed lock.
(8/12/2014)

98. Access Gate 20-Foot Polymer-Coated, Item SPV.0060.006.

A Description
This special provision describes furnishing and erecting polymer-coated access gates per the plan detail at locations shown on the plans or as directed by the engineer, and hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials
Furnish all fence and gate materials according to standard spec 616 and according to the details shown in the plan. Gates and fence materials shall be chain link and according to standard spec 616.2.1 and 616.2.3 and polymer-coated. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate.

Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

Latch Chains shall be ASTM A413/A413M, Grade 30. The chain shall be galvanized, 2'-0" in length, and have size requirements consistent with 3/8" regular link. All latch chains used on keeper posts shall have an attached 'S' link attached to the end of the chain as shown in the plans.

Keeper posts shall be furnished according to standard spec 634.

Furnish new signs as shown in the plan and according to standard spec 637. Furnish and install sign connections as shown in the plans.

Provide polymer-coating over zinc-coating on all components that conforms to ASTM F626 and F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction

Construct the gate as shown in the plan and according to standard spec 616.3.1 and 616.3.3.

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

Attach each sign to the face of the gate as shown in the plan.

D Measurement

The department will measure Access Gate 20-Foot Polymer-Coated by each unit for each emergency access gate, acceptably installed and completed. Each Access Gate 20-Foot Polymer-Coated consists of the 8 feet of fencing on each side of the gate area, the gate, signs, latch chains, and keeper posts.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.006	Access Gate 20-Foot Polymer-Coated	Each

Payment is full compensation for furnishing and installing all materials including polymer-coating, excavation and removing all excess excavation; for setting posts including placing concrete; for erecting and tensioning all fencing components; for providing the gate; for completing any touch-up and repairs; for signs; for keeper posts; for latch chains and 'S' hooks; and for all bolts, hardware, and other connection pieces found in the plan.

99. Bicycle Rack Concrete-Mounted, Item SPV.0060.008.

A Description

This special provision describes furnishing and installing custom manufactured Bicycle Racks as shown on the plans and details.

B Materials

Furnish Bicycle Racks that conform to the style and material shown in the plan details. Provide Madrax (Waunakee, WI, (800) 448-7931) 'U' Bicycle Rack with custom Janesville Lean Bar.

Provide a 'Mad Shield' finish on all components. The 'Mad Shilled' finish is a two-part finish including galvanizing and then powder coating with a triglycidyl isocyanurate (TGIC) polyester powder coat.

Color: Black
Attachment: Surface mounted

C Construction

Install Bicycle Racks in the location shown on the plans per manufacture's recommendations for surface mounting. Anchor Bicycle Rack onto concrete sidewalk per manufacturer's recommendations. Shim Bicycle Rack to maintain level. Shims shall be powder coated steel and black in color.

It is not recommended to locate the anchor bolts until the rack is in place.

Deliver products to the site in the manufacturer's original, unopened containers and packaging. Upon delivery, examine packages immediately to ensure all products are complete and undamaged.

Store products in a protected, dry area in the manufacturer's original, unopened containers and packaging.

Protect product's finish from damage during handling and installation.

D Measurement
The department will measure Bicycle Rack Concrete-Mounted by each unit in place, acceptably furnished and installed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.008	Bicycle Rack Concrete Mounted	Each

Payment is full compensation for furnishing and installing all materials necessary to completely install the Bicycle Rack; furnishing and installing all hardware and connectors; and performing all mounting, leveling, proper disposal of all surplus materials.

100. Test Pits, Item SPV.0060.009.

A Description
This special provision describes excavating test pits and backfilling as directed by the engineer and as hereinafter provided. Test pits are for the purpose of locating and relieving trapped water within the existing roadway embankments.

B Materials
Construct test pits conforming to standard spec 205.2 for Roadway Excavation.

Provide materials to conform to standard spec 312.2 for Select Crushed Material.

C Construction
All excavation of test pits shall be performed during daytime hours. The engineer shall be present during excavation.

The location of test pits shall be determined by the engineer. Contact the engineer at least four weeks prior to earthwork operations. Test pits shall be excavated at least two weeks prior to roadway excavation operations. Different timelines may be required by the engineer.

Excavate the foreslope of the existing roadway embankment beginning at the edge of the existing subgrade shoulder point at a slope of 1:1 down to the elevation of the toe of existing slope, but no lower than 1 foot above the ditch flow line if a ditch is present. Excavations shall be 10 feet wide measured parallel to the roadway shoulder. The bottom of the test pit shall be sloped to drain away from the roadway.

If water is present or seeping from the embankment, backfill with select crushed material where the test pit is located on an embankment that is supporting live traffic. Place select crushed material to stabilize the test pit and allow water to seep out. If the embankment is not supporting live traffic, then the test pit shall remain open and maintained until seeping stops or as approved by the engineer.

If water is not present or seeping from the embankment, backfill the test pit with roadway embankment or a material approved by the engineer.

D Measurement
The department will measure Test Pits by each unit, acceptably installed.

The department will measure Select Crushed Material as specified in standard spec 312.4.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.009	Test Pits	EACH

Payment is full compensation for all engineer approved work specified including excavating, sloping, shaping, stockpiling, backfilling with roadway embankment, compacting, and maintaining.

If select crushed material is required for backfilling, the department will pay for select crushed material under item 312.0110. The department will pay for erosion control, if required, under the erosion control bid items.
(03/28/2017)

101. Removing Billboard Sign and Sign Structure, Item SPV.0060.011.

A Description
This special provision describes removing existing billboards and supports according to the applicable sections of standard spec 638 and as hereinafter provided.

B (Vacant)

C Construction
Remove the complete billboard unit including signs, supports, footings, ladders, walkways, electrical systems and all appurtenances from the locations designated on the plans. Excavate to remove the footings 2 feet below the existing ground surface and provide adequate backfill and compaction of the removal area to eliminate settling. Restore the surface around the location to the same condition as surrounding area and as directed by the engineer. Billboards with multiple supports and signs at the same location, but not necessarily connected, will be considered one complete unit.

The contractor shall coordinate with electric utility owner for disconnection of the power service prior to removal of the billboard and billboard supports, if applicable. The power supply shall be removed to a location that allows safe termination and burying.

D Measurement
The department will measure Removing Billboard Sign and Sign Structure as each individual complete billboard unit removed, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.011	Removing Billboard Sign and Sign Structure	Each

Payment is full compensation for removing the signs, supports, footings, ladders, walkways, electrical systems and all appurtenances associated with the billboard; for removal from the project site; for backfilling any necessary areas; and coordination with utilities and following utility and OSHA removal requirements. Removed items are property of the contractor.

102. Clay Anti-Seepage Collar, Item SPV.0060.012.

A Description

This special provision describes furnishing and installing low permeable clay around reinforced concrete storm sewer pipe at the locations shown on the plans.

B Material

For each source, prior to excavating and hauling the low permeable clay to the project, submit the results of the laboratory tests described in Table 1. The laboratory testing shall document that each clay type from the source meets or exceeds the requirements.

The sample for the hydraulic conductivity test shall be remolded clay at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test ASTM D698 and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test ASTM D698. Submit the test results to the engineer for review, two weeks prior to incorporation of the clay into the work.

C Construction

C.1.1 Subgrade

Compact the subgrade to a minimum density as defined in standard spec 207.3.6.2.

C.1.2 Placement

Place and compact low permeable clay in 6-inch lifts. Place each lift of low permeable clay in one continuous lift. The thickness of the low permeable clay shown on the plans should be measured perpendicular to the surface. Extend the clay collar a minimum of four feet along the length of pipe, centered on the joint, and construct the clay collar as shown on the plans.

Compact the low permeable clay to a minimum of 95% Standard Proctor ASTM D698 Maximum Dry Density. Break up clods greater than 4-inches in diameter prior to compaction. Provide all equipment necessary to adjust low permeable clay to the proper moisture content for compaction. Do not proceed with placement of additional lifts until all required low permeable clay testing and documentation has been completed for the previous lift. During placement of the low permeable clay the minimum moisture content shall be as defined by the testing performed in the source evaluation and with the following limits:

-No drier than the optimum moisture content as determined by the Standard Proctor test ASTM D698.

Table 1						
Reference	Number	Test Title	Requirements	Testing Frequency		
				Screening	QA/QC[3]	
					Top Cover	Sideslopes
ASTM[1]	D698	Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort	NA[2]	1/source	1/source	1/source
ASTM	D1140	Standard Test Methods for Amount of Material in Soils Finer Than the No. 200 (75-um) Sieve	Per NR 538[4]	2/source	1/2,220 cy per lift[5]	1/3,330 cy per lift
ASTM	D422	Standard Test Method for Particle-Size Analysis of Soils	Per NR 538	2/source	1/2,220 cy per lift	1/3,330 cy per lift
ASTM	D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.	Per NR 538	2/source	1/2,220 cy per lift	1/3,330 cy per lift
ASTM	D2487	Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)	Per NR 538	2/source	1/2,220 cy per lift	1/3,330 cy per lift
ASTM	D2922	Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)	Per NR 538	NA	200'x200' Grid/lift	240'x240' Grid/lift
ASTM	D5084	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	Per NR 538	1/source[6]	1/6,660 cy per lift[7]	1/10,000 cy per lift[7]

Notes:
1. ASTM = American Society of Testing and Materials.
2. NA = Not applicable.
3. QA/QC = Quality Assurance / Quality Control. One QA/QC test for the project quantity required.
4. NR 538 = Wisconsin Department of Natural Resources regulations Chapter NR 538 Beneficial Use of Industrial Byproducts.
5. A lift shall not exceed 8-inches.
6. The sample for the test shall be remolded at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test.
7. An undisturbed sample from a thinned walled sampler (Shelby tube).

Low permeable clay not meeting the above requirements will be removed as directed by the engineer. Removing, replacing, and/or reworking low permeable clay not meeting the above requirements shall be completed at no cost to the department.

D Measurement
The department will measure Clay Anti-Seepage Collar by each unit acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.012	Clay Anti-Seepage Collar	EACH

Payment is full compensation for testing, sampling, furnishing, hauling and placing of all materials; and for excavation, backfilling and disposing of excess material.

103. Welding Storm Sewer Covers, Item SPV.0060.100.

A Description
This special provision describes welding storm sewer manhole or inlet covers at locations shown on the plan and hereinafter described.

B (Vacant)

C Construction
Prior to welding, clean out all soil debris, other accumulated matter, and materials deposited or lodged on the storm sewer cover.

Conform to AWA 1.1 "Structural Welding Code-Steel".

All welding shall be done by skilled, experienced, qualified, and state certified operators.

Provide welding in such a manner that welding can be grounded off for future access.

D Measurement
The department will measure Welding Storm Sewer Covers as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.100	Welding Storm Sewer Covers	Each

Payment is full compensation for cleaning covers, debris removal and disposal, and for welding, including all welding materials.

104. Sediment Level Monitoring Post, Item SPV.0060.101.

A Description
This special provision describes furnishing, assembling and installing Sediment Level Monitoring Post at the locations shown on the plans or as directed by the engineer.

B Materials
Furnish post material according to standard spec 634.2.5.

Furnish a staff gauge with a porcelain enamel finish to resist rust and discoloration and features graduation marks every inch.

Submit shop drawings showing the details of sediment level monitoring post construction. Show the post height, staff gauge height, width, material and all dimensions necessary for the construction of the post.

C Construction
Install post according to standard spec 634.3.

Fasten staff gauge to post according to manufacturer's recommendations.

D Measurement
The department will measure Sediment Level Monitoring Post as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.101	Sediment Level Monitoring Post	Each

Payment is full compensation for furnishing, hauling and placing the posts; providing and placing staff gauge; and for providing all hardware and anchors.

105. Monitoring Well, Item SPV.0060.102.

A Description
This special provision describes furnishing, assembling, and installing monitoring wells at the locations shown on the plans or as directed by the engineer. This work shall be according to the requirements of the plans and standard specifications and Section NR 141 of the Wisconsin Administrative Code.

B Materials
Materials incorporated into the work shall meet the requirements of materials named and as herein specified.

Provide well casing and cap composed of polyvinyl chloride (PVC) pipe conforming to the requirements of subsection NR 141.07 of the Wisconsin Administrative Code.

Provide well screen that is fabricated from polyvinyl chloride (PVC) pipe and conforms to the requirements of subsection NR 141.09 of the Wisconsin Administrative Code.

Provide concrete according to standard spec 602.2.

Provide filter sand that is clean, well-graded, fine silica sand visibly free of clay, dust, micaceous matter, and organic matter; has a specific gravity of not less than 2.50; and is not more than 5% by weight of its content soluble in a 10% hydrochloric acid solution. Sand produced by crushing limestone dolomite, or other materials containing clay and/or materials that may adversely impact the performance of the head monitoring well shall not be used as filter sand. Provide filter sand that has a Uniformity Coefficient (Cu) of not more than 1.5, and meets the following gradation requirements:

Sieve Size	Percent Passing
No. 40	96 – 100
No. 60	0 - 5

C Construction

Install monitoring wells at the locations shown on the plans or as directed by the engineer and in compliance with the details and dimensions shown on the plans.

Use only hollow stem augers, solid stem augers, or air rotary method drill techniques for installation of monitoring wells. The drilling method selected shall permit the proper construction of the required diameter well. Do not use a drilling method that introduces oils, lubricants, or other contaminants into the borehole.

Join all well casing and well screen sections with flush threaded joints. Use casings, screen, and fittings that are free of deformation, damage, or flaws, or any other defect that may impact the performance of the completed well.

Place and center the well screen and well casing in the prepared borehole. Evenly place the filter sand to surround the well screen to the depth shown on the plans. Use a measuring device during filter sand placement to ensure that the material is evenly placed and that bridging does not occur. If bridging is detected, tamp the filter sand into place to eliminate such bridging.

After satisfactory installation of the monitoring well, clean and restore the site to meet the approval of the engineer. Do not leave excess drill cuttings at the site unless approved by the engineer.

D Measurement
The department will measure Monitoring Well as units, and the quantity measured for payment will be the number of individual monitoring wells constructed according to the contract and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.102	Monitoring Well	Each

Payment is full compensation for furnishing all materials and components; all drilling and drilling procedures necessary for well installation; installing all well components and materials; installing all protective devices and components; removing all excess drill cuttings and fluids; disposing of all surplus materials; cleaning and restoring the embankment and/or roadway surface after well completion; and completing and submitting all required forms and documentation.

106. Concrete Cutoff Wall, Item SPV.0060.103.

A Description
Perform work according to the applicable provisions of standard spec 504 and as detailed in the plans.

B Materials
Provide concrete according to the applicable provisions of standard spec 504 and as detailed in the plans. Provide high strength galvanized steel adhesive anchors and washers according to the applicable provisions of standard spec 502.2.12 and as detailed in the plans.

C Construction
Drill bolt holes in the locations shown on the plans after the concrete in the concrete cutoff wall is cured and use adhesive anchors to secure the endwall to the cutoff wall. Maintain existing drainage and provide any dewatering necessary for the work.

D Measurement
The department will measure Concrete Cutoff Wall as each individual concrete cutoff wall, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.103	Concrete Cutoff Wall	Each

Payment is full compensation for furnishing all excavation and preparation; for providing all equipment and materials, including concrete, reinforcing steel, and adhesive anchors; for

placing, finishing, protecting, and curing; for maintaining drainage and dewatering; for disposing of surplus excavation material; and for restoring the work site.

107. Covering Storm Sewer, Item SPV.0060.104.

A Description
This special provision describes how various sized storm sewer pipe stubs and storm sewer structure pipe cutouts will be covered to prevent sediment from infiltrating into the storm sewer system. The locations of covering storm sewer are shown on the plans.

B Materials
Furnish storm sewer stub covers made of a polyethylene film and plywood. Provide a polyethylene film meeting the following requirements:

Property Requirements	Vaule	Test Method
Tensile Strength, min.	40 lbf	ASTM D7003
Grab tensile strength, min.	50 lbf	ASTM D7004
Elongation at Breat, min.	400%	ASTM D7003
Hydrostatic Resistance	32 psi	ASTM D751
Permeability	0.058 g/100in ^{2}/day	ASTM E96 Pro. B

Provide plywood with a minimum thickness of 3/4-inch at storm sewer pipe stub locations.

C Construction
Completely cover the storm sewer openings with one continuous piece of polyethylene film. Cover a minimum of one foot of the stub length or one foot of the structure height with the polyethylene film and secure the polyethylene film to the storm sewer pipe stub or storm sewer structure.

Place a sheet of plywood to cover the opening of the storm sewer stub. Provide one continuous sheet and extend the plywood sheet a minimum of 2 inches beyond the outside diameter of the pipe on all sides.

Place the plywood tight to the polyethylene film and the storm sewer stub and secure the plywood as necessary to prevent movement or separation from the pipe while backfilling the trench.

D Measurement
The department will measure Covering Storm Sewer by each individual covering storm sewer, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.104	Covering Storm Sewer	Each

Payment is full compensation for furnishing, delivering, and assembling all specified materials.

108. V Notch Weir Wall, Item SPV.0060.105.

A Description
Perform work according to the applicable provisions of standard spec 501, 502, and 611 and as detailed in the plans.

B Materials
Furnish adhesive from the department's approved products list.

C Construction
Install adhesive anchors according to standard spec 502.2.12.

D Measurement
The department will measure V Notch Weir Wall as each individual v notch weir wall, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.105	V Notch Weir Wall	Each

Payment is full compensation for providing all materials and performing the work, including all concrete, steel reinforcement, and other fittings; for drilling holes into the inlets median 2 grate structure and for adhesive anchors; for disposing of surplus material and for cleaning out the inlets median 2 grate structure.

109. Fixed Message Sign Portable Support, Item SPV.0060.201.

A Description
This special provision describes the construction of portable sign supports for fixed message signs as shown on the plans.

B Materials
Use lumber and hardware conforming to standard spec 507.

C Construction
Construct the fixed message sign portable support according to the detail on the plans. Grade pad surrounding location of portable support such that the support can be located on a level surface.

D Measurement
The department will measure Fixed Message Sign Portable Support as each location, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.201	Fixed Message Sign Portable Support	Each

Payment is full compensation for furnishing and installing fixed message sign portable supports; for preparing a level location for sign support; and for removing the portable supports at the completion of the work.

110. Barrier Wall Delineation, Item SPV.0060.202.

A Description
This special provision describes furnishing and installing barrier wall delineation at locations as listed in the plans, according to standard spec 633 and 637, and as hereinafter provided.

B Materials
Furnish a barrier delineation system that consists of Type SH reflective white or yellow sheeting laminated to a 0.040 corrugated aluminum base. The aluminum base shall be 6 inches high and 36 inches long prior to corrugation, with a finished size of 6 inches by 35 inches. The aluminum base shall have six pre-punched holes ¼" in diameter, located near both ends and centered on the base. Screws used for mounting the bases to the barrier wall shall be ¼" x 1" stainless steel anchors with a 5/16" nylon washer placed between the screw head and the base.

C Construction
The top of the section of delineation system shall be mounted 6" below the top of the barrier wall. Care must be taken to ensure a uniform height through the length of the installation. One 6 inch by 35 inch delineation system section shall be mounted at the same longitudinal location on each successive 12.5 foot length of barrier wall within the installation location(s) depicted in the plans, or as directed by the engineer.

D Measurement
The department will measure Barrier Wall Delineation by each section of the system, placed according to the contract and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.202	Barrier Wall Delineation	Each

Payment is full compensation for cleaning and preparing the barrier wall surface, for furnishing and installing the material.

111. Temporary Concrete Barrier Gate, Item SPV.0060.203; Reinstall Temporary Concrete Barrier Gate, Item SPV.0060.204.

A Description

This special provision describes furnishing and installing Temporary Concrete Barrier Gate, moving as required for project staging, and removing upon completion of the project.

B Materials

Furnish a Temporary Concrete Barrier Gate and all necessary hardware and materials to install the gate.

The gate system shall be able to meet the recommended structural adequacy, occupant risk, and vehicle trajectory criteria set forth in the National Cooperative Highway Research Program Report (NCHRP) 350 for Test Level 3 for Longitudinal Barriers.

The gate shall be capable of preventing vehicle penetration, vaulting, and underriding during Test Level 3 Length of Need with Transition (TL-3 LON/T) impacts and shall smoothly redirect the vehicle.

The gate system shall be able to span a 24-foot minimum gap in concrete barrier.

The gate system shall fasten only to the temporary concrete barrier wall.

The gate system shall be able to be opened completely within 5 minutes once the moving process begins. The gate shall be able to be opened both by pivoting the gate on a hinge and by completely disconnecting the gate from the barrier wall and rolling it parallel to the temporary barrier wall.

Tools and materials required to open the gate system must be physically fastened to, or stored within, the gate system in such a way that prevents such tools and materials from becoming hazards during a crash. Tools and material must be accessible and usable immediately upon need.

C Construction

Install the gate system in accordance to manufacturer's recommendations at contract-identified locations or as the engineer directs. Move and reinstall the gate system as required for contract staging.

Ensure that the gap between the traffic face of temporary barrier and the traffic face of the gate transition is to be less than ¼ of an inch. If manufacturer allows, the contractor may bolt thrie beam and thrie beam terminal connector to concrete barrier and the gate transition to bridge the gap in concrete barrier.

Provide and maintain the gates throughout the duration of the project. Repair any damage to the gates within 48 hours.

Upon completion of the work, remove the gate system and properly dispose of all materials.

D Measurement
The department will measure Temporary Concrete Barrier Gate as each individual gate system, acceptably completed.

The department will not make additional measurements for Temporary Concrete Barrier Gate if damaged during construction, including damage due to vehicular hits.

The department will measure Reinstall Temporary Concrete Barrier Gate as each individual unit, acceptably completed, if separate reinstallations are required for project staging as shown in the plans. The department will not measure reinstallations made solely to accommodate the contractor's means and methods.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.203	Temporary Concrete Barrier Gate	EACH
SPV.0060.204	Reinstall Temporary Concrete Barrier Gate	EACH

Payment for Temporary Concrete Barrier Gate is full compensation for providing, installing, maintaining, and removing the gate system.

Payment for Reinstall Temporary Concrete Barrier Gate is full compensation for moving and reinstalling the gate system.
(3/1/2017)

112. Anchor Bolt Cover Shroud, Item SPV.0060.350.

A Description
This work shall be according to the requirements of standard spec 657, the plans, standard detail drawings, and as hereinafter provided.

B Materials
Furnish aluminum cover shroud according to the plans and standard spec 657.2.2.5 and as hereinafter provided:

Housing and cover plate shall be 12 gauge aluminum. Rivets for attaching the cover plate to the housing shall be aluminum and sized according to the specifications determined by the fabricator of the unit. Provide nonmetallic washers between cover shroud and steel lock washer.

C Construction
According to the plans and standard spec 657.3 and as hereinafter provided:

Follow all manufacturer installation guidelines for installation of cover shroud and accessories. Apply silicone sealant between the top of the cover shroud body and the aluminum cover plate.

D Measurement
The department will measure Anchor Bolt Cover Shroud in place by each unit and the quantity measured for payment will be the number of cover shrouds, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.350	Anchor Bolt Cover Shroud	Each

Payment is full compensation for transporting all materials; and for furnishing and installing a complete unit.

113. Pull Box Non-Conductive 18x24-Inch, Item SPV.0060.351; Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.352; Pull Box Non-Conductive 24x36-Inch, Item SPV.0060.353.

A Description
This special provision describes furnishing and installing Pull Box Non-Conductive (size) shown on the plans.

B Materials
Furnish pull boxes, frames, and lids made of non-conductive material. Pull boxes, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77.

C Construction
Provide pull boxes, frames, and lids made of non-conductive materials. The contractor may extend Pull Box Non-Conductive (size) as the plan details show using the same material as the pull box. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under 205.3.12. Use covers stamped with "Electric" for traffic signal and lighting pull boxes or "WISDOT COMMUNICATIONS" for communications pull boxes.

Provide one 24" length of #6 reinforcing steel to be driven vertically on the north side of the pull box.

D Measurement
The department will measure Pull Box Non-Conductive (size) as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.351	Pull Box Non-Conductive 18x42-Inch	Each
SPV.0060.352	Pull Box Non-Conductive 24x42-Inch	Each
SPV.0060.353	Pull Box Non-Conductive 24x36-Inch	Each

Payment for Pull Bon Non-Conductive (size) is full compensation for providing and installing pull boxes, frames, lids, aggregate, fasteners, reinforcing steel; conduit extensions less than 10 feet long including fittings; and for furnishing all excavating, backfilling and disposing of surplus material. The department will pay separately for engineer-directed pull box drain duct under the Conduit Rigid Nonmetallic bid items as specified in standard spec 652.5.

114. Fiber Tracer Marker Post, Item SPV.0060.401.

A Description

This special provision describes providing and installing a fiber tracer marker post according to standard spec 671, as shown on the plans, and as hereinafter provided.

B Materials

Furnish fiber tracer marker post constructed from high-impact polycarbonate, with stainless steel hardware, five standard terminals, terminal enclosure for cathodic protection, an anchor bar, white and orange in color, fade resistant, ultraviolet stable, a minimum of 62 inches long, 3.5 inch outside diameter, vandalism resistant, and labeled with "WARNING FIBER OPTIC CABLE BELOW" on the top of the marker molded into the marker and not separately surface applied.

Furnish conduit rigid nonmetallic schedule 40 1-inch for connection into the communications vault.

C Construction

Install per manufacturer's recommended installation procedures at locations shown on the plans and as directed by the engineer.

Install so that the fiber tracer marker cannot be pulled out or removed manually. Install per manufacturers' recommendation.

Install conduit rigid nonmetallic schedule 40 1-inch into the communications vault. Connect locate wire to fiber tracer marker post terminal.

D Measurement

The department will measure Fiber Tracer Marker Post as each individual fiber tracer marker post acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.401	Fiber Tracer Marker Post	Each

Payment is full compensation for providing and installing all materials, including conduit rigid nonmetallic schedule 40 1-inch, making all connections, restoration of ground to original condition including any topsoil, seed, fertilizer, mulch or sod; and for disposing of any surplus materials.

115. Install Wireless Mesh Radio Assembly, Item SPV.0060.402.

A Description
This special provision describes installing a wireless mesh radio assembly salvaged from the project.

B Materials
The wireless mesh radio assembly will be salvaged from the project.

Provide all necessary cables and connectors between the wireless mesh radio assembly and other devices.

C Construction
Install the wireless mesh radio assembly as shown in the plan. Configure and integrate the wireless mesh radio assembly to function as intended.

D Measurement
The department will measure Install Wireless Mesh Radio Assembly as each individual wireless mesh radio assembly, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.402	Install Wireless Mesh Radio Assembly	Each

Payment is full compensation for installing a wireless mesh radio assembly; furnishing all necessary incidental hardware; and making all necessary connections.

116. Install Hardwired Bluetooth Sensor, Item SPV.0060.403.

A Description
This special provision describes installing a hardwired Bluetooth sensor salvaged from the project.

B Materials
The hardwired Bluetooth sensor will be salvaged from the project.

Provide all necessary cables and connectors between the hardwired Bluetooth sensor and other devices.

C Construction
Install the hardwired Bluetooth sensor as shown in the plan. Configure and integrate the hardwired Bluetooth sensor to function as intended.

D Measurement
The department will measure Install Hardwired Bluetooth Sensor as each individual hardwired Bluetooth sensor assembly, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.403	Install Hardwired Bluetooth Sensor	Each

Payment is full compensation for installing a hardwired Bluetooth Sensor; furnishing all necessary incidental hardware; and making all necessary connections.

117. Install IP Radio, Item SPV.0060.404.

A Description
This special provision describes installing an IP radio, associated riser, and associated cabling.

B Materials
The department will furnish the IP Radio. Provide the antenna riser (including conduit rigid metallic 11/2-inch, condulet, and weatherhead) and cabling to make the IP radio operational.

C Construction
Mount the IP radio and associated riser as indicated on the plans. Connect it to devices as shown on the plans, or as directed by the engineer.

D Measurement
The department will measure Install IP Radio as each individual IP radio, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.404	Install IP Radio	Each

Payment is full compensation for installation of the IP radio and associated riser and cabling; furnishing and installing all necessary hardware; and for making all necessary connections.

118. Install Solar Power System – Microwave Detector, Item SPV.0060.405.

A Description
This special provision describes installing a department-furnished solar power system on a pole as part of a system detector station at locations as shown on the plans.

B Materials
The department-furnished solar power system consists of 2-85W panels, 2-120 Amp-Hour batteries, a solar power controller, and one solar power cabinet to house the batteries and controller.

contractor furnished materials include outdoor rated power cable between solar power system output and department furnished microwave detector as well as mounting hardware for the solar power assembly.

C Construction
Install the microwave detector as required in standard spec 675. Additionally, integrate the microwave detector with communications equipment as shown on the plans.

Install the solar panels facing south on the pole with the devices to be powered. If a compass is used, a correction must be made for the difference between magnetic north and true north. Install the solar panels at a tilt angle of approximately 60 degrees. The tilt angle shall be considered the angle from horizontal to the front, or face of the solar panel.

Install the cabling, ensuring that cables enter the cabinet only through the bottom, and that strain relief fittings are used to seal cable entrance points. Connect the panel to the charge controller, connecting the white wire to the positive (+) terminal and the black wire to the negative terminal (-).

D Measurement
The department will measure Install Solar Power System – Microwave Detector as a unit, with each assembly installed, functioning, testing, and accepted according to the contract.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.405	Install Solar Power System – Microwave Detector	Each

Payment is full compensation for providing the contractor furnished materials, installing the department furnished solar power assembly, and making the solar power assembly functional with the microwave detector, including testing the solar power assembly and the microwave detector ensuring the system is fully operational.

119. Remove Poles Wood, Item SPV.0060.406.

A Description
This special provision describes removing an existing wood pole and all attached equipment (that is not being salvaged or relocated by the project).

B Materials
Provide all tools and equipment necessary to remove the existing wood pole and all attached equipment (that is not being salvaged or relocated by the project).

C Construction
Carefully remove the existing wood pole and all attached equipment (that is not being salvaged or relocated by the project) at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement
The department will measure Remove Poles Wood as each individual wood pole, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.406	Remove Poles Wood	Each

Payment is full compensation for removing the wood pole and all attached equipment (that is not being salvaged or relocated by the project).

120. Salvage and Reinstall 30-Foot Wood Pole, Item SPV.0060.407.

A Description
This special provision describes salvaging 30-foot wood poles, reinstalling them at different locations as shown on the plan, and restoring the site to match surroundings.

B Materials
Provide all tools and equipment necessary to salvage an in-place 30-foot wood pole.

Furnish ground rod(s), wires and other components per National Electric Code (NEC).

Furnish and install conduit and equipment according to the plans.

Furnish and install guy wires and support cables at all wood poles that have aerial power cables.

C Construction

Prior to removal, the engineer or delegated representative shall verify that all salvageable items have been removed from the wood pole and inspect the 30-foot wood pole for damage. If the in-place 30-foot wood pole is found to be damaged, contact Kyle Hemp of the department's Southwest Region at (608) 246-5367.

Disconnect all cables and wiring that are mounted on the wood pole. Properly dispose of all removed materials off the job site and off department right-of-way. After the wood pole is removed, backfill the removal site with similar material to the surrounding material and match the surrounding grade.

Salvage the 30-foot wood pole. Storage of the salvaged materials prior to reinstallation is the responsibility of the contractor and is included in this bid item.

Any materials which are lost or damaged during removal, salvaging, transport, or storage shall be repaired or replaced by the contractor at the expense of the contractor, or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

Install the wood pole so that a minimum of 6 feet is buried below grade. Increase the buried depth as required based on existing soil conditions.

Install all hardware as represented on the plans.

Install grounding components according to the National Electric Code (NEC).

D Measurement

The department will measure Salvage and Reinstall 30-Foot Wood Pole as each individual salvage and reinstall 30-foot wood pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.407	Salvage and Reinstall 30-Foot Wood Pole	Each

Payment is full compensation for removing, salvaging, storing, transporting, reinstalling the 30-foot wood poles; for backfilling and restoring the site to match surroundings; and for providing grounding components, guy wires, support cables, and rigid metallic conduit.

121. Salvage and Reinstall Solar-Powered Bluetooth Sensor, Item SPV.0060.408.

A Description

This special provision describes removing, salvaging, and reinstalling a solar-powered Bluetooth sensor with onboard cellular modem, solar panel and solar panel mounting.

B (Vacant)

C Construction
Prior to removing, the engineer or delegated representative shall determine if the equipment is fully functional and inspect the equipment for damage. If the equipment is found to be non-functional or damaged, contact Kyle Hemp of the department's Southwest Region at (608) 246-5367.

Carefully remove the existing solar-powered Bluetooth sensor equipment at the location indicated in the plans. Salvage all mounting hardware associated with the equipment. Salvage all cables/wires connected from each device to the next connected device.

Reinstall the solar-powered Bluetooth sensor and make operational within five calendar days of removal. Reinstall the solar-powered Bluetooth sensor as indicated on the plans and per the manufacturer's recommendations. Mount the antenna to maximize signal strength.

Any materials to be reinstalled which are lost or damaged during removal, salvaging, transport, or storage shall be repaired or replaced by the contractor at the expense of the contractor, or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

Storage of the salvaged materials prior to reinstallation or delivery to the Southwest Region is the responsibility of the contractor and is included in this bid item.

D Measurement
The department will measure Salvage and Reinstall Solar-Powered Bluetooth Sensor as each individual salvage and reinstall solar-powered bluetooth sensor, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.408	Salvage and Reinstall Solar-Powered Bluetooth Sensor	Each

Payment is full compensation for removing, salvaging, transporting, storing, and reinstalling a salvaged solar-powered Bluetooth sensor, a cellular modem, and solar panel; installing all necessary hardware; making all necessary connections; and for making the Bluetooth sensor fully operational.

122. Salvage and Reinstall Microwave Detector Assembly, Item SPV.0060.409.

A Description
This special provision describes removing, salvaging and reinstalling the existing microwave detector assembly, and the pole type 5 as indicated on the plans.

B (Vacant)

C Construction

Prior to removing, the engineer or delegated representative will determine if the microwave detector equipment is fully functional and inspect the equipment for damage. If the equipment is found to be non-functional or damaged, contact Kyle Hemp of the department's Southwest Region at (608) 246-5367.

Carefully remove the existing microwave detector equipment at the location indicated in the plans. Salvage all mounting hardware associated with the microwave detector equipment. Salvage all cables/wires connected from each device to the next connected device. Pull back the existing microwave detector cable to the pull box and store as indicated in the plans.

Carefully remove the in-place type 5 pole and transformer base from the concrete base at the location indicated in the plans. Salvage the type 5 pole, transformer base, and other equipment attached to the pole.

Reinstall the type 5 pole and the microwave detector equipment and make operational within seven calendar days of removal. Reinstall the microwave detector equipment as indicated in the plans and per manufacturer's recommendations. Pull the existing microwave detector cable from the pull box where it's stored to the new microwave detector assembly location and make all connections to make the microwave detector assembly operational.

Any materials to be reinstalled which are lost or damaged during removal, transport, or storage shall be repaired or replaced by the contractor at the expense of the contractor, or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

Storage and protection of the salvaged materials prior to reinstallation or delivery to the department's Southwest Region is the responsibility of the contractor and is included in this bid item.

D Measurement

The department will measure Salvage and Reinstall Microwave Detector Assembly as each individual salvage and reinstall microwave assembly, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.409	Salvage and Reinstall Microwave Detector Assembly	Each

Payment is full compensation for removing, salvaging, transporting, protecting, storing, and reinstalling salvaged microwave detector equipment and type 5 pole; and for disconnecting and salvaging any necessary wiring.

123. Communication Vault-Round, Item SPV.0060.410.

A Description
This special provision describes furnishing and installing Communication Vault-Round shown on the plans.

B Materials
Furnish pull boxes, frames, and lids made of non-conductive material. Vault, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77.

C Construction
Provide Communication Vault-Round, frames, and lids made of non-conductive materials. The contractor may extend Communication Vault-Round as the plan details show using the same material as the vault. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under standard spec 205.3.12. Use covers labeled with "Electrical".

D Measurement
The department will measure Communication Vault-Round as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.410	Communication Vault-Round	EACH

Payment for Communication Vault-Round is full compensation for providing and installing vault, frames, lids, aggregate, fasteners, reinforcing steel; and for all excavating, backfilling and disposing of surplus material. The department will pay separately for engineer-directed vault drain duct under the Conduit Rigid Nonmetallic bid items as specified in standard spec 652.5.

124. Utility Line Opening, Item SPV.0060.650.

A Description
This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown in the plans or as directed by the engineer.

B (Vacant)

C Construction
Perform the excavation using hydro-vac excavation and in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Perform the utility line openings as soon as possible and at least 10 days in advance of proposed construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening is called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Approve and coordinate all utility line openings with the engineer. Notify the utility contacts as listed in the plans a minimum of three days prior to the work so they may be present when the work is completed.

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.650	Utility Line Opening	Each

Payment is full compensation for the excavation required to expose the utility line; backfilling with existing material removed from the excavation; compacting the backfill material; restoring the site; and for cleanup.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings shall not be considered part of Utility Line Openings, but shall be considered separate and measured and paid for separately as removal items. Temporary pavement, concrete curb, gutter, and sidewalk items shall also be considered separate from Utility Line Openings and will be measured and paid for separately.

125. Adjusting Water Valve Boxes, Item SPV.0060.651.

A Description
This special provision describes adjusting water valve boxes to match new pavement elevations and conforms to the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition, and as hereinafter provided.

B Materials
Valve box adjustment ring sections shall be of similar manufacture to existing valve box to ensure compatibility of parts.

C Construction
This work shall be accomplished by adding valve box adjustment sections to existing valve box. Contractor may alternatively move the existing adjustable water valve box sleeve up or down as necessary by lifting or turning the valve box top as the case may be according to

the valve box mechanical design. Any excavation or backfilling required to acceptably accomplish the adjustment is considered incidental to this item. This work shall also be done so as not to damage the valve, or the valve box, or detrimentally affect the valve box alignment. The valve box shall be realigned if disturbed during any construction operations so it is centered over the operating unit. If the valve box is not adequate in length to provide proper adjustment, the contractor shall provide the proper length valve box adjustment section, and shall install and adjust the new section. Leave all valve boxes centered over the valve operating nut and free of dirt and debris.

D Measurement

The department will measure Adjusting Water Valve Box per each adjustment, completed and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.651	Adjusting Water Valve Boxes	Each

Payment is full compensation for furnishing all materials, including adjustment rings, adjusting the valve box; excavating, backfilling, and compacting as required; and for disposal of waste materials.

126. Adjusting Sanitary Manholes, Item SPV.0060.652.

A Description

This special provision describes the adjustment of sanitary manholes to an elevation as determined by the engineer as well as the installation of an internal/external seal and conforms with the Standard Specifications for Sewer and Water Construction in Wisconsin, latest, and as hereinafter provided. Masonry adjusting rings and mortar shall be added or removed as needed. This item applies to those structures that must be lowered less than 6 inches or raised less than 12 inches.

B Materials

B.1 Adjusting Rings

Adjustment rings shall be concrete with steel reinforcement in conformance with ASTM C-478. Precast concrete rings shall have an inside diameter to match the manhole opening, be not less than 2 inches nor more than 6 inches high, and have a wall thickness of 6 inches unless otherwise specified. The rings shall contain a minimum of one No. 2 reinforcing rod centered within the ring. No cracked or broken rings shall be used. The top of precast manhole cones shall be set a maximum of 18 inches lower than established grade in unimproved areas, with the top of the manhole cover being ringed up flush with the existing ground. The minimum number of adjusting rings shall be one 2-inch ring. The maximum height of adjusting rings shall be 8 inches in paved areas. All joints between the adjusting rings shall be filled with grout or mortar, including between the cone and the adjusting ring and the adjusting ring and the frame. Where necessary, rings shall be grooved to receive a step.

B.2 Manhole
Precast manholes and tops shall conform with ASTM Specifications, C478, latest revision.

B.3 Manhole Seal
Sanitary manhole seal – internal/external, shall meet the material requirements of section 8.42.3 and the performance requirements of section 8.42.4 of the Standard Specifications for Sewer and Water Construction, latest edition.

C Construction
Engineer must approve prior to beginning work, any method of adjustment of sanitary manhole.

Build up manholes so that the frames and cover when placed will be at the established required grade; the existing frame and cover shall be removed and reinstalled.

Install seals according to the manufacturer's recommended installation procedures.

Granular Backfill conforming to section 6.43.4 of the Standard Specifications for Sewer and Water Construction in Wisconsin shall be used as backfill in the manhole excavation area and shall be compacted by mechanical vibration to achieve uniform consolidation in conformance with section 2.6.14(b).

D Measurement
The department will measure Adjusting Sanitary Manholes per each adjustment, completed and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.652	Adjusting Sanitary Manholes	Each

Payment is full compensation for furnishing all materials (including adjusting rings, masonry, and internal/external seals), excavation, backfill, compaction, disposal of surplus materials, cleaning out and restoring the structure, and compaction.

127. Corporation Stop, 1-Inch, Item SPV.0060.653.

A Description
This special provision describes furnishing and installing the tapping saddle, corporations stop, tapping the water main, for water service laterals, of the indicated size, being installed under this contract as tabulated on the plans, and as hereinafter provided.

B Materials
Furnish Mueller P-25008N corporation stops.

C Construction
Install water services according to the Standard Specifications for Sewer and Water Construction in Wisconsin, part 5. Dry tap and install the corporation stop with the main line.

D Measurement
The department will measure Corporation Stop, 1-Inch as each unit, acceptably complete in place.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.653	Corporation Stop, 1-Inch	Each

Payment is full compensation for furnishing all labor, tools, materials, and incidentals necessary to complete the work.

128. Curb Stop and Box, 1-Inch Service, Item SPV.0060.654.

A Description
This special provision describes furnishing and installing the curb stop valve and box, of the size indicated, for water service laterals being installed under this contract as tabulated on the plans, and as hereinafter provided.

B Materials
Furnish Mueller P-25155N Curb Stop and Mueller H-10300 Stop Box.

C Construction
Install water services according to the Standard Specifications for Sewer and Water Construction in Wisconsin, part 5.

Install curb stops according to Detail #7, Sanitary Sewer and Water Services, Part 6-Water Distribution System of the City of Janesville Standard Specifications.

D Measurement
The department will measure Curb Stop and Box, 1-Inch Service as each unit, acceptably complete in place.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.654	Curb Stop and Box, 1-Inch Service	Each

Payment is full compensation for furnishing all labor, tools, materials, and incidentals necessary to complete the work.

129. Junction Boxes 4x4x4-Inch, Item SPV.0060.700.

A Description
This work shall be according to the requirements of standard spec 653, the plans, standard detail drawings, and as hereinafter provided.

B Materials
According to the plans and standard spec 653.2.2, Junction Boxes.

C Construction
According to the plans and standard spec 653.3.

D Measurement
The department will measure Junction Boxes 4x4x4-Inch as each individual unit, acceptably completed.

E Payment
The department will pay for measured quantity at the contract unit price under the following bid item.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.700	Junction Boxes 4x4x4-Inch	Each

Payment is full compensation according to standard spec 653.5.

130. Maintenance Doors, Item SPV.0060.900.

A Description
This special provision describes designing, furnishing and installing the maintenance doors as shown on the plans and as hereinafter provided.

B Materials
B.1 Hardware
The maintenance door and associated material indicated will consist of the following:

- Maintenance door framing shall be 4’ X 7’ hollow structural section conforming to ASTM A500, Grade B. The door panel shall have similar noise reducing properties, and shall have the same formliner pattern aesthetic treatment as the noise barrier panels to provide a seamless transition from the noise barrier panels to the maintenance doors.
- Hinges shall provide sufficient width to permit the door to swing 180° and be flush bearing design. Fabricate door hinges from pipes conforming to ASTM A53, Grade B, and pins conforming to ASTM A36.
- Provide adjustable tension rods of ASTM A36, where required, to ensure doors are square.
- Access through the door shall be from the highway side of the noise barrier only. The door shall be self-latching with a pad lockable hasp and provided with a large handle to ease the opening of the door.

- Keys for the maintenance doors shall be keyed alike for the IH-39/90 project.
- All hardware for the maintenance doors shall be weather resistant to corrosion.
- Hot-dip galvanize all steel components of the door according to ASTM A123.

B.2 Design
The design of the maintenance door shall be supplied by the pre-qualified single-sided absorptive noise barrier vendor.

Provide the name of the selected system to the engineer within 25 days after the award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and prior to beginning design of the noise barrier maintenance door. The suppliers of the noise barrier components shall attend this meeting.

B.3 Painting
The final color of the maintenance door shall match the noise barrier panels.

C Construction
Doors and frames for Maintenance Doors shall be installed according to the approved shop drawings. The finish hardware shall be installed according to the manufacture's installation instructions.

The integrity of the sound barrier continuity, including the maintenance door, shall be such that no light passes through any vertical or horizontal joint in the system, or between the system and the ground.

D Measurement
The department will not measure Maintenance Doors. The department will use pay plan quantity conforming to standard spec 109.1.1.2.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.900	Maintenance Doors	Each

Payment is full compensation for designing, furnishing and installing the Maintenance Door; and for furnishing and installing connections to noise walls.

131. Street Sweeping, Item SPV.0075.001.

A Description
Remove small dirt and dust particles from the roadway using a street sweeper prior to shifting traffic to new locations and periodically during the project as directed by the engineer.

B (Vacant)

C Construction
Provide a self-contained mechanical or air conveyance street sweeper and dispose the accumulated material.

D Measurement
The department will measure Street Sweeping by the hour that the street sweeper is on the project picking up and removing debris from the roadway, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.001	Street Sweeping	HRS

Payment is full compensation for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

132. Concrete Curb & Gutter 24-Inch Type D, Item SPV.0090.001.

A Description
This item shall be according to the pertinent requirements of standard spec 601 and shall conform to the construction detail shown in the plans.

B Materials
The concrete curb and gutter shall be according to the pertinent materials of standard spec 601.

C Construction
Perform work according to standard spec 601.

D Measurement
The department will measure Concrete Curb and Gutter 24-Inch by the linear foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Concrete Curb and Gutter 24-Inch	LF

Payment is full compensation for excavating and preparing the foundation; for providing all materials, including concrete, and expansion joints; placing, finishing, protecting and curing concrete; and for sawing joints.

133. Concrete Pavement Joint Sealing, Item SPV.0090.002.

A Description

This special provision provides for the sealing of the longitudinal joint located a distance, as shown on the plans, from the base of S42 and S42A concrete barrier only when this joint is created by a full-depth sawcut. Joint sealing shall consist of cleaning the joint in preparation for sealing and sealing the joint in the concrete pavement with a hot applied joint sealing material.

B Materials

All designated joints shall be sealed with a hot applied joint sealant conforming to the Specification for Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements, ASTM Designation D6690, type II. A Certification of Compliance shall be furnished to the engineer prior to application.

Sawed joints designated to be sealed under this bid item will not require Concrete Protective Surface Treatment as described in a separate article of these special provisions.

C Construction

The operation of sealing shall be performed as soon as practicable upon elapse of the curing period and in any event prior to the time traffic of any kind uses the pavement.

Joints shall not be sealed until they have been inspected and approved by the engineer.

Application of the joint sealer shall be made when the joint surfaces are clean and dry.

Immediately before sealing the joint, thoroughly clean the joints of all laitance, curing compound and other foreign material. Exposed joint faces shall be cleaned by sandblasting, or by water blasting with sufficient pressure to thoroughly and completely clean the joint. A multiple-pass technique shall be used until the surfaces are free of material that might prevent bonding. For final cleaning immediately prior to installation of the sealer, the joints shall be blown clean with oil-free compressed air. The joint faces must be surface dry when sealant is applied.

The sealing compound shall be heated to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. The heating kettle shall be equipped with a mechanical agitator, positive temperature control and an approved dial thermometer for checking temperatures of the compound. The heating kettle, if and when operated on concrete, shall be properly insulated against the radiation of heat to the concrete surface.

The sealing compound shall not be heated above the maximum safe heating temperature. The maximum safe heating temperature shall be determined from tests made on samples from each lot or shipment of the material delivered to the project. When so approved by the engineer, the manufacturer's recommended maximum safe heating temperature may be used

in lieu of test determinations where relatively small quantities of sealer are used. Any material heated above the maximum safe heating temperature shall be discarded.

Pouring of joints shall be made when the sealing material is at the required temperature and, insofar as practicable, the sealing compound shall be maintained at a uniform temperature during pouring operations. Pouring shall not be permitted when the temperature of the sealing compound in the applicator, as it is applied to the joint, is more than 10° F below the recommended pouring temperature. Pouring of the molten sealer in the joint opening shall be done with such equipment that the sealer completely fills the joint opening without overflowing on the adjoining surface and when finished, after shrinkage, the sealer is approximately flush with the adjoining surfaces. In the event satisfactory sealing of a joint is not accomplished in a single pouring, the sealing compound shall be placed in two pours. At least one-half of the required amount shall be placed in the first pouring, and the second pouring shall follow the first as soon as practicable after the first pouring has attained maximum shrinkage but not later than one hour after the first pouring.

D Measurement
The department will measure Concrete Pavement Joint Sealing by the linear foot in place along the joint, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.002	Concrete Pavement Joint Sealing	LF

Payment is full compensation for cleaning the joint, and for furnishing and applying the joint sealant.
(1/31/2017)

134. Re-Lap Guard Rail, Item SPV.0090.003.

A Description
This special provision describes removing previously installed guard rail sections (W-beam, thrie beam, or thrie beam transition) and re-installing to orientate the lap connections to accommodate a change in traffic flow direction.

B Materials
Inspect all materials upon removal. Replace unserviceable posts, blocks, rail, and rail hardware with new as directed by the engineer in accordance with standard spec 614.2.1.

C Construction
Remove guard rail sections and re-install with the correct lap direction for the appropriate traffic flow condition. Install guard rail in accordance with standard spec 614.3.2.2.

D Measurement
The department will measure Re-Lap Guard Rail by the linear foot in place, 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.0090.003	Re-Lap Guard Rail	LF

Payment is full compensation for removing guard rail; re-installing guard rail with the correct lap direction; and for replacement of unserviceable elements.
(4/10/2017)

135. Reinstall Temporary Snow Fence, Item SPV.0090.004.

A Description
This special provision describes removing, storing, and reinstalling temporary snow fence on to woven wire right-of-way fence to block snow from crossing a highway.

B (Vacant)

C Construction
Remove existing snow fence at locations shown on the plans. Store the removed snow fence in a location approved by the engineer. Once grading operations are completed and new woven wire right-of-way fence is installed, reinstall the existing temporary snow fence. Reinstall the fence by securely fastening the snow fence to the woven wire right-of-way fence with galvanized wire. Contractor is required to replace any existing temporary snow fence damaged during the removal, storage or reinstallation of the existing temporary snow fence. Reinstall snow fence prior to November 15, 2019.

D Measurement
The department will measure Reinstall Temporary Snow Fence by the linear foot acceptably removed, stored and reinstalled.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.004	Reinstall Temporary Snow Fence	LF

Payment is full compensation for removing, storing, and reinstalling temporary snow fence, including galvanized fastening wire and all other materials required to reinstall the temporary snow fence.

136. Fence Chain Link Polymer-Coated 6-Foot Ground Mounted, Item SPV.0090.005.

A Description

This special provision describes furnishing and installing a polymer-coated chain link fence according to the pertinent requirements of standard spec 616 and shall conform to the details shown in the plans and as hereinafter provided. The color of all components in this fence system shall be the same and shall be as specified on the plans.

B Materials

The fence components shall be according to the pertinent materials of standard spec 616.

Provide polymer-coating over chain link fence components that conforms to the requirements of ASTM F626, F668, and F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction

Perform work according to standard spec 616.

Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the department. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the department. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

D Measurement

The department will not measure Fence Chain Link Polymer-Coated X-Ft. The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.005	Fence Chain Link Polymer-Coated 6-Foot Ground Mounted	LF

Payment is full compensation for fabricating, galvanizing and polymer-coating all fence components; clearing and grubbing the fence line; for excavating; for setting posts including

placing concrete; for providing longer posts driven in unstable soils at no additional cost to the department; for erecting and tensioning all fencing components; for installing grounds; for any touch-ups and repairs; for removing and disposing of all debris, excess excavation, and surplus materials.

137. Furnishing Snow Fence, Item SPV.0090.006, Installing Snow Fence, Item SPV.0090.007.

A Description

This special provision describes furnishing snow fence and installing snow fence on to woven wire right-of-way fence to block snow from crossing a highway.

B Materials

B.1 Snow Fence

Furnish a snow fence consisting of wood slats woven together with five 2-wire strands of galvanized wire, as described below.

Wood slats - No. 1 aspen, spruce, or poplar; or southern yellow pine, 3/8 inch thick x 1-1/2 inches wide x 4 feet high. The permissible variation in width shall not exceed 1/16 inch and 1/4 inch in length. Thickness shall be a minimum of 3/8 inches but shall not exceed 9/16 inches. Both ends shall be cut square.

The galvanized wire shall not be thinner than 13-gauge steel wire, with no less than two 360 degree twists of the wire in the weave between the slats.

The slats shall be spaced 3-3/4 inches on center (2-1/4 inches opening) plus or minus ¼-inch.

B.2 Galvanized Wire

Furnish galvanized 11-gauge steel wire to attach snow fence to woven wire right-of-way fence.

C Construction

Securely fasten the snow fence to the newly installed woven wire right-of-way fence with the galvanized wire by wrapping the wire around the wooden post and snow fence at three locations near the bottom, middle, and top of the posts at the locations shown on the plans.

The snow fence shall be installed prior to November 15, 2019.

Deliver any remaining Furnishing Snow Fence quantity that was determined not to be needed by the engineer to a Rock County Department of Public Works storage building at a location determined by Rock County.

D Measurement

The department will measure Furnishing Snow Fence by the linear foot, acceptably completed.

The department will measure Installing Snow Fence by the linear foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.006	Furnishing Snow Fence	LF
SPV.0090.007	Installing Snow Fence	LF

Payment is full compensation for furnishing and delivering snow fence and for installing snow fence. Delivery of Furnishing Snow Fence to a Rock County Department of Public Works storage building for quantity not installed is included in the cost of Furnishing Snow Fence.

138. Pipe Boring & Jacking 36-Inch, Item SPV.0090.100; 48-Inch, Item SPV.0090.101.

A Description
This special provision describes boring and jacking Culvert Pipe Reinforced Concrete Class V (Size) and Storm Sewer Pipe Reinforced Concrete Class V (Size) shown on the plans and details as hereinafter provided. The pipes will be jacked in place beneath IH 39 and the Wisconsin and Southern Railroad as shown on the plans unless otherwise directed by the engineer.

B Materials
Culvert Pipe Reinforced Concrete Class V (Size) and Storm Sewer Pipe Reinforced Concrete Class V (Size) shall meet the requirements of standard spec 522 and 608.

Furnish a casing pipe conforming to ASTM A-53-B with minimum yield strength of 35,000 psi. Casing pipe to be placed by jacking methods shall be of sufficient thickness and axial strength to withstand the forces encountered during the jacking process. The casing pipe shall be sized to accommodate the largest outside diameter of the carrier pipe (including pipe bells) and allow for deflection of the casing pipe and installation of wood blocking or factory-fabricated spacers. Casing pipe shall have a bituminous outside coating and a minimum wall thickness for E-80 loading. The casing pipe field and shop welds shall conform with the American Welding Society (AWS) standard specifications. Field welds shall be complete penetration, single-bevel groove type joints. Welds shall be airtight and continuous for the entire circumference of the pipe and shall not increase the outside pipe diameter by more than ¾-inch, nor shall there be intrusion of the weld metal into the bore of the casing.

Furnish grout between the casing pipe and existing ground containing cement according to ASTM C150, Type I or Type II; water according to standard spec 501; and sand according to ASTM C404, Size No. 1. The grout shall fill the voids between the casing pipe and the

existing ground and have a minimum compressive strength of 100 psi, attained within 24 hours and sufficiently fluid to inject through lining and fill voids, with prompt setting to control grout flow.

Furnish grout for the annular space between the casing pipe and the carrier pipe consisting of three parts sand according to ASTM C144 to one part cement according to ASTM C150.

C Construction

Provide plans and calculations for boring and jacking culvert pipe and storm sewer to the engineer for approval prior to construction of the culvert pipe. Do not work on the culvert pipe or storm sewer until the engineer has approved the plans and calculations.

Pipe shall be bored and jacked in place without disturbing IH 39 and the Wisconsin & Southern Railroad above the pipe, or disrupting traffic on IH 39 and the rail operations on the Wisconsin and Southern Railroad.

Pipe boring and jacking operations shall begin within two days after excavating the bore and/or receiving pits.

Any pits that result in a drop-off greater than two feet and steeper than 3 horizontal to 1 vertical shall be separated from live traffic lanes by Concrete Barrier Temporary Precast as shown on the plans and directed by the engineer unless the drop-off is located more than 34 feet from the nearest edge of a live traffic lane.

All construction methods including ordering pipe, excavating the bore and receiving pits, setting the horizontal boring machine, boring and jacking of pipe, and removal of the boring machine shall be done according to the boring machine and reinforced concrete pipe manufacturers' recommendations.

Complete all excavating necessary to construct shafts according to the grades shown on the plans. Casing pipe may be installed by boring hole with earth auger and simultaneously jacking pipe-in-place. Casing pipe sections shall have field welded joints. Bore and jack Culvert Pipe Reinforced Concrete Class V (Size) and Storm Sewer Pipe Reinforced Concrete Class V (Size) in place beneath the roadway and railroad at the location, elevation, and grade shown on the plans. Bore and jack pipe in place without disturbing the roadway or railroad above the pipe. Do not carry the excavation ahead of the pipe so far as to cause caving. If material above or adjoining boring hole is caving or being removed, stop work and modify installation method. Two rails or sills shall be set or secured on a rigid base on the bottom of the jack pit to keep the pipe at the established grade. Design bracing, backstops, and use jacks of sufficient rating for continuous jacking without stoppage, except for adding pipe sections and as conditions permit, to minimize tendency of ground material to "freeze" around casing pipe. If jacking the pipe directly, fit the leading edge with a cutter or shoe to protect the pipe. Protect the pipe ends and joints from crushing due to jacking pressures. The first and last two pipe sections shall have joint ties installed prior to jacking. Joint ties shall conform to the standard specifications. After the pipe is in final position,

joints shall be pointed with cement mortar meeting the requirements of standard spec 519.2.3 and standard spec 607. Pointing is not required when rubber type gasket joints are used.

Insert single carrier pipe into casing pipe using either wood blocking or factory fabricated spacers. Provide blocks or spacers at each pipe joint and at the center of each pipe. Spacing shall not exceed 6 feet. Design wood blocking to prevent uplifting of carrier pipe by hydrostatic forces and attach pipe using stainless steel bands minimum 1-inch wide. The blocks or spacers shall allow for grade adjustments, prevent floating or buckling of the carrier pipe and provide a low friction coefficient so that the carrier pipe can be slid into place without splitting bells.

The contractor assumes all risk as to nature and peculiarities of materials to be excavated, and is, at contractor's own expense, responsible for all pumping, sheathing, bracing, and other work necessary and required to construct, protect, and complete the work.

In soft unstable soil, use an auger of slightly smaller diameter than the inside diameter of the pipe so as not to create a void between the pipe and the soil.

Take care to ensure that the developed thrust pressures do not disturb existing utilities in or around the bore pit area.

Dispose of all excess soil material.

Backfilling of the pits shall take place within two days after pipe jacking has been completed and shall meet the requirements of standard spec 608.3.5.

No boring will be permitted without the concurrent jacking of the concrete pipe through the soil.

Fill voids between the excavation and the pipe using filler materials and placing methods as approved by the engineer.

Restore areas disturbed by boring and jacking process to original condition after jacking is completed by grading, shaping, seeding, and mulching.

D Measurement

The department will measure Pipe Boring & Jacking (Size) 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.0090.100	Pipe Boring & Jacking 36-Inch	LF
SPV.0090.101	Pipe Boring & Jacking 48-Inch	LF

Payment is full compensation for boring and jacking the steel casing pipe, jacking equipment, casing, excavation, sheeting, shoring, bracing, drainage, dewatering, concrete, grouting, safety devices, backfilling, disposing of excess materials; and for obtaining any easements for installing long sections of pipe.

The items of Culvert Pipe Reinforced Concrete Class V (Size), Storm Sewer Pipe Reinforced Concrete Class V (Size) and Concrete Barrier Temporary Precast will be measured and paid for separately.

139. Drain Slotted Vane Longitudinal, Item SPV.0090.102; Temporary, Item SPV.0090.103.

A Description
This special provision describes furnishing and installing Drain Slotted Vane Longitudinal and Drain Slotted Vane Longitudinal Temporary, as shown on the plans, in accordance to standard spec 501, 505, 607, and as hereinafter provided.

B Materials
The pipe that the vane drain casting rests in shall be 18-inch diameter SDR-35 polyvinylchloride. (PVC) sewer pipe.

C Construction
Prior to encasing the pipe in concrete, cover the upper end of the slotted drain as shown on the plans, or as approved by the engineer.

Prior to construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain. Remove any material entering the pipe at contractor expense.

Exercise care to avoid damage to the slotted vane drain pipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drain pipe at contractor expense.

Remove Drain Slotted Vane Longitudinal Temporary prior to constructing the roadway to its final condition. Repair opening in drainage structure at connection to Drain Slotted Vane Longitudinal Temporary. Submit method of repair to the engineer for approval.

D Measurement
The department will measure Drain Slotted Vane Longitudinal and Drain Slotted Vane Longitudinal Temporary in length by 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.0090.102	Drain Slotted Vane Longitudinal	LF
SPV.0090.103	Drain Slotted Vane Longitudinal Temporary	LF

Payment is full compensation for furnishing all materials including PVC pipe and end cap, slotted vane drain castings, concrete masonry and reinforcement: adjusting bricks; drilling inlet or manhole cover to accommodate connection bolts to vane drain; hauling and placing the pipe: making connections to existing inlets; cleaning out and restoring site of work; removing and disposing of all materials for Drain Slotted Vane Longitudinal Temporary; and for repairing opening of drainage structure.

140. Compost Tube, Item SPV.0090.150.

A Description

This special provision describes furnishing and installing compost tubes or wattles as shown on the plans or as directed by the engineer and as hereinafter provided. Compost tube shall consist of cylinders of biodegradable compost encased within biodegradable netting.

B Materials

Provide compost that:

1. Is a well-decomposed, stable, weed-free, organic, commercially manufactured material resulting from the biological degradation and transformation of plant or animal-derived materials under controlled conditions designed to promote aerobic decomposition.
2. Is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
3. Is stable with regard to oxygen consumption and carbon dioxide generation.
4. Does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
5. Does not possess objectionable odors.
6. Has a moisture content with no visible free water or dust produced when handling the material.

Compost feedstock may include, but is not limited to, yard waste, clean chipped wood, farm crop residue, farm animal manure, or vegetable food waste. Do not use materials that have been treated with chemical preservatives as a compost feedstock or as wood chips.

Test according to the United States Composting Council's "Test Methods for Examining of Composting and Compost (TMECC)". Provide compost with the United States Composting Council's Seal of Testing Assurance Program (STA) certification and STA product label. The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Provide quality control documentation that includes the following:

1. The compost technical data sheet with the feedstock by percentage in the final compost product.
2. A certification that the compost meets federal and state health and safety regulations.
3. A copy of the producer's STA certification.
4. A certified report of tests performed by an STA-certified lab, verifying that the compost meets the requirements in the table below.

Compost must comply with the following:

PROPERTY	TEST METHOD	REQUIREMENT
Particle Size	*TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis	100% Passing, 3 inch 90 – 100% Passing, 1 inch 70 – 100% Passing, ¾ in 30 – 75% Passing, ¼ inch Maximum length 6 inches
pH	TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units	6.0-8.0
Soluble Salts	TMECC 04.10-A Electrical Conductivity 1:5 Slurry Method dS/m (mmhoscm)	Below 5.0
Moisture Content	TMECC 03.09-A Total Solids & Moisture at 70+/- 5 deg C % Wet Weight Basis	35 – 50
Organic Matter Content	TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis	Minimum 40% Max 60% ash content
Maturity	TMECC 05.05-A Germination and Vigor "Germination and Root Elongation" Seed Emergence Seedling Vigor % Relative to Positive Control	80 or Above
Physical Contaminants	TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal %>4mm fraction, dry mass (weight) basis	Less than 1%

PROPERTY	TEST METHOD	REQUIREMENT
Pathogens	Shall meet Class A requirements for pathogens as specified in NR 204.07(6)(a)	Pass
Chemical Contaminants	Shall meet pollutant concentrations as specified in NR 204.07(5)(c)	Pass
Carbon to Nitrogen Ratio	C:N	10:1 – 20:1

*TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Immediately remove from the project, compost not conforming to the above requirements or taken from a source other than those tested, and replace the compost at no cost to the department.

The engineer reserves the right to sample compost at the jobsite.

Compost tube shall be a minimum of 5 inches in diameter. Netting material shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials such as preservatives. Netting material shall be free from cuts, tears, or weak places and shall have a minimum lifespan of 6 months and a maximum lifespan of not more than 24 months.

Wood stakes used in securing Compost Tube shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2-inch by 2-inch nominal dimension and 36 inches in length. Install/locate wood stakes per manufacturer's recommendations.

C Construction

Compost tube shall be installed as soon as construction will allow or when designated by the engineer. Compost tube installation and trenching shall begin from the base of the slope and work uphill prior to any topsoil or compost placement. Trenches shall, at all times, be perpendicular to the direction of flow down the slope. Excavated material from trenching shall be spread evenly along the uphill slope and be compacted using hand tamping or other method approved by the engineer. On gradually sloped or clay-type soils trenches shall be 2 to 3 inches deep. On loose soils or on steep slopes, trenches shall be 3 to 5 inches deep, or half the thickness of the Compost tube, whichever is greater.

The contractor shall exercise care when installing wattles to ensure the method of installation minimizes the disturbance of waterways and prevents sediment or pollutant discharge into water bodies.

C.1 Maintenance

Maintain Compost tube until the project has been completed or directed otherwise. Routinely inspect Compost tube for any material dislodgement. Replace and redress any dislodged material.

D Measurement
The department will measure Compost Tube by the linear foot of tube, acceptably installed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.150	Compost Tube	Each

Payment is full compensation for furnishing and installing Compost Tube as shown in the plans or as directed by the engineer; including the required trenching and subsequent spreading of trenched material after the embankment is stabilized; and the furnishing and installing of wood stakes to secure Compost Tube.

141. Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others, Item SPV.0090.202.

A Description
This special provision describes maintaining and removing concrete barrier temporary precast left in place by others according to standard spec 603. The concrete barrier temporary precast left in place by others becomes the property of the contractor upon notice to proceed.

B Materials
Furnish any replacement materials for the concrete barrier temporary precast left in place by others that is according to the pertinent requirements of standard spec 603.3.2.

C Construction
Maintain and remove the concrete barrier temporary precast according to the pertinent requirements of standard spec 603.3.

D Measurement
The department will measure Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others by the linear foot, acceptably completed, measured along the base of the barrier in its left-in-place location.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.202	Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others	LF

Payment is full compensation for maintaining and removing the concrete barrier temporary precast; and for removing and disposing of all materials.

Reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.

142. Traffic Control Gawk Screen Furnished, Item SPV.0090.203; and Traffic Control Gawk Screen Installed, Item SPV.0090.204.

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/supplier 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 gawk 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 Furnished 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, measured along the base of the screen after installation 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 contactor's means and methods.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.203	Traffic Control Gawk Screen Furnished	LF
SPV.0090.204	Traffic Control Gawk Screen Installed	LF

Payment for Traffic Control Gawk Screen Furnished 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.
(5/31/2016)

143. Water Service Lateral, 1-Inch, Item SPV.0090.650.

A Description
This special provision describes furnishing and installing water service lateral, of the indicated size, at the locations and to the required grades as shown in the plans or as required to meet the locations of water services as found in the field.

B Materials
Furnish water laterals, continuous copper tubing of the indicated diameter, conforming to section 8.24.0 of the Standard Specifications for Sewer and Water Construction in Wisconsin.

C Construction
Construct water service lateral according to the Part 5 of the Standard Specifications for Sewer and Water Construction in Wisconsin.

Install water service lateral according to Detail #7, Sanitary Sewer and Water Services, Part 6-Water Distribution System of the City of Janesville Standard Specifications.

Assumed locations of existing water service laterals are shown on the plans as a guide and to establish a contract quantity. It is the responsibility of the contractor to locate, verify active status, and reconnect all active existing water laterals on all water mains being installed under this contract.

D Measurement
The department will measure Water Service Lateral, 1-Inch by the linear foot in place. The footage to be paid shall be measured from centerline of water main to the point of connection to the existing water lateral.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.650	Water Service Lateral, 1-Inch	LF

Payment is full compensation for mobilization; excavation; temporary sheathing, shoring, and bracing; dewatering; furnishing and installing service lateral, backfilling with excavated material and compaction; as build records; and for removal of all material not permanently incorporated in the work.

144. Fence Chain Link Polymer-Coated 6-Ft., Item SPV.0090.850.

A Description
This special provision describes furnishing and installing a new polymer-coated fence system on structures according to the pertinent plan details, as directed by the engineer and as hereinafter provided. The color of all components in this fence system shall be the same and shall be as specified on the plans.

B Materials
All materials for this fence system shall be new stock, free from defects impairing strength, durability, and appearance. Fabric shall be produced by methods recognized as good commercial practice. Wire used in the manufacture of the fabric shall be capable of being woven into fabric without the polymer-coating cracking or peeling. Pipes used in framework shall be straight, true to section and free of defects. All burrs at the ends of pipes shall be removed before galvanizing. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

B1 Fabric
Provide steel chain link fence fabric that conforms to the requirements of ASTM F668, Class 2b, a polymer-coating fused and adhered to wire that is zinc-coated. Provide fabric woven from 9-gage wire using plan specified mesh size, diamond pattern, with both the top and bottom selvages knuckled. The minimum breaking strength of the wire shall be 1290 lbs. The color of polymer-coating shall conform to the requirements of ASTM F934.

B2 Framework
Provide steel rails, posts and post sleeves conforming to the requirements of ASTM F1083, Standard Weight Pipe (Schedule 40) of the size (O.D.) and weight as shown on the plans. The minimum yield strength shall be 30,000 psi and the minimum tensile strength shall be 48,000 psi. These components shall be zinc-coated inside and outside by the hot-dip process as stated in ASTM F1083. Provide polymer-coating over zinc-coating that conforms to ASTM F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components. Weld base plate to posts or post sleeves and complete any additional welding of components before galvanizing.

B3 Fittings
Provide end post caps, line post caps, top rail sleeves, rail ends, line rail clamps, brace bands, tension bands, tension bars, and tie wires that are steel and conform to the requirements of ASTM F626. Tie wires shall be round and 9-gage wire. These components (excluding tie wires) shall be zinc-coated by the hot-dip process as stated in ASTM F626. Provide polymer-coating over zinc-coating on components (excluding tie wires) that conforms to the requirements of ASTM F626. For tie wires, provide polymer-coating on wire that is zinc-coated using the same procedure as used for the wires in the fence fabric. End post caps and line post caps shall fit tightly over posts to prevent moisture intrusion. Supply dome style caps for end posts and loop type caps for line posts. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

B4 Bolts
All bolts are to be supplied with lock washers and nuts. Use galvanized steel bolts, nuts and washers per plan details.

B5 Tests

B5.1 Fabric and Tie Wire

Breaking Strength:	ASTM A370
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F668
Adhesion:	ASTM F668
Accelerated Aging Test:	ASTM F668, D1499
Mandrel Bend Test:	ASTM F668

B5.2 Framework

Tensile and Yield Strength:	ASTM E8
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM E376
Adhesion:	ASTM F1043
Accelerated Aging Test:	ASTM F1043, D1499

B5.3 Fittings

Zinc-Coating Requirements		
Weight of Zinc-Coating:	ASTM A90	
Polymer-Coating Requirements		
Thickness of Polymer-Coating:	ASTM F626	
Adhesion:	ASTM F1043	(same test as for framework)
Accelerated Aging Test:	ASTM F1043, D1499	(same test as for framework)

B6 Submittals

In addition to the engineer, send submittals listed in this section to the name below for informational purposes:

David Nelson
WisDOT (Bureau of Structures)
4802 Sheboygan Ave. (Room 601)
PO Box 7916
Madison, WI 53707

B6.1 Shop Drawings

Submit shop drawings showing the details of fence construction. Show the fence height, post spacing, rail location, and all dimensions necessary for the construction of the chain link fence. Also include shop drawings for access gates and underdeck light post components as detailed in the plans. Label the end posts, line posts, rails, post sleeves, top rail sleeves, bolts and fittings. State the polymer-coating type used on the fabric, framework and fittings and the Class of coating used on the fabric. State the color of polymer-coating to be used on the fence components. For the fabric, state the wire gage, mesh size, and type of selvages used. For the framework, state the size (O.D.) and unit weight for the posts and rails. For the fittings, state

the size for top rail sleeves, brace bands, tension bands, tension bars, line rail clamps, size and type of bolts, and the tie wire gage. State the material type used for fabric, framework, and fittings. Also give the breaking strength for the fabric wire and the tensile and yield strength properties for the framework.

B6.2 Specification Compliance
Submit certification of compliance with material specifications. Provide material certification and test documentation for fabric, framework, fittings and hardware that shows that all materials meet or exceed the specifications of this contract and the tests in B5. This document shall provide the name, address and phone number of the manufacturer, and the name of a contact person.

C Construction
C1 Delivery, Storage and Handling
Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

C2 Touch-up and Repair
For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the Owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

C3 General
Install the chain link fence (including access gates and underdeck light post components as detailed in the plans) according to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20-feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near ¼ point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement
The department will not measure Fence Chain Link Polymer-Coated X-Ft. The department will use pay plan quantity conforming to standard spec 109.1.1.2.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.850	Fence Chain Link Polymer-Coated 6-Ft.	LF

Payment is full compensation for fabricating, galvanizing and polymer-coating all fence components (including access gates and underdeck light post components as detailed in the plans), and transporting to jobsite; and for erecting components to create a polymer-coated fence system, including any touch-up and repairs.

145. Survey Project 1003-10-84, Item SPV.0105.001; 1005-10-76, Item SPV.0105.002; 1005-11-71, Item SPV.0105.003.

A Description
Standard spec 105.6 and 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 a 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 1003-10-84	LS
SPV.0105.002	Survey Project 1005-10-76	LS
SPV.0105.003	Survey Project 1005-11-71	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.
(5/14/2013)

146. Concrete Pavement Joint Layout, Item SPV.0105.004.

A Description
This special provision describes designing the joint layout and staking the location of all joints on projects 1003-10-84 and 1005-10-76, including mainline, ramps and intersections (traditional and roundabouts) to accommodate the concrete paving operation.

B (Vacant)

C Construction
Design the joint layout and stake the location of all joints on projects 1003-10-84 and 1005-10-76, including mainline, ramps and intersections (traditional and roundabouts), to accommodate the concrete paving operation. Plan and set all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement according to the plans, the American Concrete Pavement Association Intersection Joint Layout Guidelines, and as directed by the engineer. Establish the joint layout in a manner to best-fit field conditions, construction staging, the plan, and as directed by the engineer.

D Measurement
The department will measure Concrete Pavement Joint Layout, completed according to the contract and accepted, as a single complete lump sum unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.004	Concrete Pavement Joint Layout	LS

Payment is full compensation for designing the joint layout on the mainline, ramps and all traditional and roundabout intersections; for completing all surveying work necessary to locate all transverse and longitudinal joints; and for making adjustments to match field conditions and construction staging.

147. Survey Project 1003-10-84 with Optional AMG for Concrete Pavement and Base Course, Item SPV.0105.005; 1005-10-76 with Optional AMG for Concrete Pavement and Base Course, Item SPV.0105.006.

A Description

Standard spec 105.6 and 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 ½-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 in accordance 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.

Replace standard spec 650.3.8 with the following:

650.3.8 Concrete Pavement

650.3.8.1 General

(1) Under the Construction Staking Concrete Pavement bid item the contractor may substitute automated machine guidance (AMG) for conventional staking on all or part of the concrete pavement and underlying base.

650.3.8.2 Conventional Concrete Pavement Staking

(1) Set construction stakes or marks at 25-foot intervals. Set and maintain additional stakes as necessary to establish location and grade along intersecting road radii; and for auxiliary lanes, vertical curves, horizontal curves, and curve transitions according to the plans. Locate stakes to within 0.02 feet horizontally and establish elevations to within 0.01 feet vertically. Set and maintain sufficient additional stakes at each cross-section to achieve the required accuracy and to support the method of operations.

650.3.8.3 Automated Machine Guidance for Concrete Pavement

650.3.8.3.1 General

(1) No base or paving stringlines are required for AMG work.

(2) Coordinate with the engineer throughout the course of construction to ensure that work performed using AMG conforms to the contract tolerances and that the methods employed conform to the contractor's AMG work plan and accepted industry standards. Address AMG issues at weekly progress meetings.

(3) Furnish a robotic total station rover rod with prism and controller for engineer use during base course placement and paving operations. Furnish copies of user manuals and technical support to project staff for the equipment provided. Equipment furnished for engineer use remains the property of the contractor with the department responsible for repair or replacement of damaged equipment. Provide equipment from 1 week prior to the start of AMG base course trimming operations until completion of AMG paving operations. If there are multiple phases of AMG paving operations, the equipment does not need to remain on site between phases.

(4) Provide the department field staff up to 8 hours of formal training on contractor's AMG systems.

650.3.8.3.2 AMG Work Plan

(1) Submit a comprehensive written AMG work plan for department review at least 5 business days before the preconstruction conference. The engineer will review the plan to determine if it conforms to the requirements of this special provision.

(2) Trim the base course and place concrete pavement as the contractor's AMG work plan provides. Update the plan as necessary during construction.

(3) The AMG work plan should discuss how AMG technology will be integrated into other technologies employed on the project. Include, but do not limit the contents to, the following:

1. Designate which portions of the contract will be done using AMG and which portions will be done using conventional staking.

2. Describe the manufacturer, model, and software version of the AMG equipment including the angular accuracy and the measurement frequency of the guidance system.

3. Provide information on the qualifications of contractor staff. Include formal training and field experience. Designate a single staff person as the primary contact for AMG technology issues.

4. Describe how project control is to be established. Include a list and map showing control points enveloping the site. Incorporate department-provided primary control and contractor-provided secondary control into a single site control network. At a minimum provide secondary control every 250 feet on alternating sides of the traveled way outside of the grading limits. Use engineer-approved survey markers. Ensure that secondary control points are accurate to within 0.02 feet horizontally and to within 0.01 feet vertically.

5. Describe site calibration procedures. Include a map of the control points used for site calibration and control points used to check the site calibration. Describe the site calibration and checking frequency as well as how the site calibration and checking information will be documented.

6. Describe the contractor's quality control procedures. Describe procedures for checking, mechanical calibration, and maintenance of equipment. Include the frequency and type of checks performed to ensure that the trimmed base and concrete pavement conform to the contract plans.

650.3.8.3.3 Equipment

(1) Use robotic total station machine guidance or other engineer approved combination of methodologies to meet the contract requirements.

(2) Perform periodic sensor calibrations and other routine adjustments as required to ensure that the trimmed base and concrete pavement conform to the contract plans.

650.3.8.3.4 Geometric and Surface Information

650.3.8.3.4.1 Department Responsibilities

(1) The department will provide design model information as outlined in the Design Model Data article of these special provisions.

650.3.8.3.4.2 Contractor Responsibilities

(1) Review department-provided design model data for areas of the project employing AMG. Report inconsistencies between that data and the contract plans to the engineer and work with the engineer to resolve those inconsistencies. Develop a contractor construction model.

(2) Obtain elevations of adjacent pavement and bridges at centerline, edge of pavement, and other locations necessary to characterize existing profile and cross slope. Adjust design profile grade and cross slope to provide a smooth transition from the new pavement to the existing pavement or bridge. Notify the engineer when a smooth profile cannot be provided. Submit final adjusted plan elevations to the engineer.

(3) Provide the resulting construction model data proposed for the paving operation to the department in LandXML v1.2 or AutoCAD DWG.

650.3.8.3.4.3 Managing and Updating Information

(1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.

(2) Revise the construction model as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised construction model agrees with the contract plan revisions. Provide a copy of the resulting adjusted construction model data to the engineer in LandXML v1.2 or AutoCAD DWG. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.8.3.5 Site Calibration

(1) Designate a set of control points for site calibration for the portion of the project employing AMG machine guidance. Incorporate the department-provided control framework used for the original survey and design.

(2) Calibrate the site by determining the parameters governing the transformation of AMG information into the project coordinate system. Use the full set of control points designated under 650.3.8.3.5 (1) for the initial site calibration. Provide the resulting site calibration file to the engineer before beginning base construction operations.

650.3.8.3.6 Construction Checks

650.3.8.3.6.1 Daily Calibration Checks

(1) In addition to the site calibration, perform site calibration checks. At a minimum, check the calibration at the start of each day as described in the contractor's AMG work plan. Report out-of-tolerance checks to the engineer. The measured position must match the established position at each individual control point within the following tolerances:

- Horizontally to 0.02 feet or less.
- Vertically to 0.01 feet or less.

(2) Discuss the previous week's daily calibration check results at the weekly progress meeting for monitoring the AMG work.

650.3.8.3.6.2 Final Base Checks

(1) Check the trimmed base against the plan elevation at randomly selected points on cross sections located at stations evenly divisible by 100. Conduct at least one random check per 250 lane-feet corresponding to the basic units used to assess pavement thickness under standard spec 415.3.16. Also check the trimmed base at additional points as the engineer directs. Notify the engineer at least 2 business days before making final checks so the engineer can observe the process.

(2) Ensure that no individual check is off by more than 0.02 foot vertically of the adjusted plan elevation. Notify the engineer if this criterion is exceeded.

(3) The department may conduct periodic independent base checks. The department will notify the contractor if any individual check differs by more than 0.05 foot horizontally or 0.02 foot vertically from the design.

650.3.8.3.6.3 Final Pavement Checks

(1) Check the pavement at drainage structures, bridges, driveways, intersections, ramp termini, and additional points as the engineer directs. Notify the engineer at least two business days before making final checks so the engineer can observe the process.

(2) Notify the engineer and suspend paving operations immediately if the final pavement surface does match existing structures or pavement within 0.02 foot vertically.

(3) The department may conduct periodic independent pavement elevation checks. The department will notify the contractor if any individual check differs by more than 0.05 foot horizontally or 0.02 foot vertically from the adjusted plan.

D Measurement

The department will measure Survey Project (project ID) with Optimal AMG for Concrete Pavement and Base Course as a single lump sum unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.005	Survey Project 1003-10-84 with Optional AMG for Concrete Pavement and Base Course	LS
SPV.0105.006	Survey Project 1005-10-76 with Optional AMG for Concrete Pavement and Base Course	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.
(3/29/2017)

148. Electrical Service Meter Breaker Pedestal Special (CB 100), Item SPV.0105.350; Electrical Service Meter Breaker Pedestal Special (CB 300), Item SPV.0105.351; Electrical Service Meter Breaker Pedestal Special (CB 500), Item SPV.0105.352; Electrical Service Meter Breaker Pedestal Special (CB 700), Item SPV.0105.353.

A Description
Perform work according to the requirements of standard spec 656, the plans, standard detail drawings, and as hereinafter provided.

B Materials
According to the plans and standard spec 656.2 and as hereinafter provided:

Amend standard spec 656.2.3, Meter Breaker Pedestal Service, by adding the following paragraphs:

(2) Furnish meter pedestal with provisions for a minimum of two 30A double-pole breakers in a water-tight outdoor rated enclosure. Furnish and install breakers as required to reestablish existing lighting circuits.

(3) Furnish stainless steel square tubing, concrete masonry and steel reinforcement as the plans show for rigidly mounting the meter pedestal.

(4) Furnish photocell and lighting controls integral with the meter pedestal enclosure.

(5) Acceptable assembly types include meter pedestals with lighting control equipment enclosed within an integral factory-furnished compartment-type pedestal.

C Construction
According to the plans and standard spec 656.3 and as hereinafter provided:

- Obtain a City of Janesville Electrical Permit from the Housing, Building, and Neighborhood Services Department prior to performing any work. Pay all permit fees.

- Ensure that electrical service is installed and energized a minimum of one week prior to the system activation deadline.

D Measurement
The department will measure the Electrical Service Meter Breaker Pedestal Special bid item as a single lump sum for each service, 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.0105.350	Electrical Service Meter Breaker Pedestal Special (CB 100)	LS
SPV.0105.351	Electrical Service Meter Breaker Pedestal Special (CB 300)	LS
SPV.0105.352	Electrical Service Meter Breaker Pedestal Special (CB 500)	LS
SPV.0105.353	Electrical Service Meter Breaker Pedestal Special (CB 700)	LS

Payment is full compensation for furnishing and installing all materials; for excavation, backfill, and disposal of surplus materials.

149. Salvage ITS Equipment, Item SPV.0105.401.

A Description
This special provision describes salvaging existing ITS equipment as indicated on the plans.

B Materials
Provide all tools and equipment necessary to salvage the existing ITS equipment.

C Construction
Prior to salvaging, the Field System Integrator must determine if the ITS equipment is fully functional. If any part of the ITS equipment is found to not meet original manufacturer's specifications, contact Kyle Hemp of the WisDOT Southwest Region at (608) 246-5367.

Carefully salvage the existing ITS equipment at the location indicated on the plans. Salvage all mounting hardware and cables/wires associated with the ITS equipment.

Reinstallation of the ITS equipment, as indicated on the plans or as directed by the engineer, including any new materials required (cables or mounting hardware for example) will be paid for under other bid items.

Reinstall and make operational the ITS equipment within five days of salvaging.

Storage of salvaged materials prior to reinstallation is the responsibility of the contractor and is incidental to this item.

Any salvaged materials which are damaged during salvaging, transport, or the reinstallation process will be repaired or replaced at the expense of the contractor.

D Measurement
The department will measure Salvage ITS Equipment, completed according to the contract and accepted, as a single complete lump sum unit of work.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.401	Salvage ITS Equipment	LS

Payment is full compensation for salvaging the ITS equipment.

150. Removing and Resetting Steel Girders B-53-0214, Item SPV.0105.701; B-53-0215, Item SPV.0105.702.

A Description
Remove steel girders from substructure units, store the girders, replace existing bolts with new ASTM A325 bolts of similar size, and reset girders when the substructures are complete, according to the plans, the pertinent requirements of the standard specifications, and as hereinafter provided.

B (Vacant)

C Construction
Lift girders by using slings or other method that the engineer has previously approved. Store the girders on timbers or pads that are level so that the girders are vertical and so that they are not being twisted. Place pads within 24 inches of the girder ends.

Remove existing bolts from existing steel diaphragm and girder splice plates. Replace existing bolts with new ASTM A325 bolts of similar size while resetting steel girders.

In the event that damage does occur to any item that is designated for re-use in the new work, repair or replace the damaged item at no expense to the department.

Discard and replace girders, steel diaphragms and shear studs that are damaged by improper handling or storing at no expense to the department.

Remove concrete in contact with existing girders using mechanical means. Air chippers or breakers used for chipping out the old concrete shall have a total weight not exceeding 35 pounds and shall be equipped with flat, chisel-type points. The engineer may direct that the weight of the hammer be reduced.

D Measurement
The department will measure Removing and Resetting Steel Girders (Structure), completed according to the contract and accepted, as a single complete lump sum unit of work; this lump sum includes all of the structure's girders.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.701	Removing and Resetting Steel Girders B-53-0214	LS
SPV.0105.702	Removing and Resetting Steel Girders B-53-0215	LS

Payment is full compensation for removing the steel girders and steel diaphragms; properly storing the steel girders and steel diaphragms; erecting the steel girders and steel diaphragms; replacing steel girders, steel diaphragms and shear studs that are damaged by improper handling or storing; furnishing, removing and replacing all existing bolts from steel diaphragm and girder splice plates.

151. Fixed Message Signs Left in Place, Item SPV.0165.200.

A Description
This special provision describes furnishing and installing fixed message signs to be left in place as shown on the plans and described hereinafter.

Fixed Message Signs Left in Place become property of the department after final acceptance by the engineer.

B Materials
Furnish new signs as shown in the plan and conforming to standard spec 643.

C Construction
Perform this work according to standard spec 643.3 and as hereinafter provided.

D Measurement
The department will measure Fixed Message Signs Left in Place by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.200	Fixed Message Signs Left in Place	SF

Payment is full compensation for furnishing and installing the Fixed Message Signs Left in Place, and for leaving signs on project site.

152. Longitudinal Grooving Bridge Deck, Item SPV.0165.700.

A Description
This special provision describes providing longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

B Materials
Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

C Construction
Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider, all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than 1/2-inch wide.

Construct longitudinal grooves with the following criteria:

Width (In)	Depth (In)	Spacing C-C (In)	Width Tolerance (In)	Depth Tolerance (In)	Spacing Tolerance (In)
1/8	3/16	3/4	0 to 1/16	± 1/16	± 1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

D Measurement
The department will not measure Longitudinal Grooving Bridge Deck. The department will use pay plan quantity according to standard spec 109.1.1.2.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.700	Longitudinal Grooving Bridge Deck	SF

Payment is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.
(1/5/2017)

153. Temporary Shoring Railroad, Item SPV.0165.701.

A Description

This special provision describes furnishing and installing temporary shoring at locations alongside railroad tracks as shown in the plan and according to the shoring design requirements.

B Materials

B.1 Shoring Design

Provide an effective shoring system capable of withstanding Coopers E-80 live load surcharge, and which is in compliance with OSHA and Federal Railroad Administration (FRA) requirements. For reference, use "Guidelines For Temporary Shoring" published by Union Pacific Railroad and The Burlington Northern and Santa Fe Railway (BNSF). A copy of these guidelines may be obtained from the department at the Bureau of Railroads & Harbors, 4802 Sheboygan Avenue, Madison, Room 701. Where conflicts exist, the standard specifications, special provisions and plans shall supercede these guidelines.

Refer to standard spec 107.17(5) and (6) regarding the development and submittal of shop drawings, detailed plans, and computations for temporary construction near the Wisconsin and Southern Railroad Company's (WSOR) tracks. Include in the submitted drawings and plans the proposed method of installation and removal of the shoring not included in the contract plans. In all calculations, take into consideration railroad surcharge loading and design the shoring to meet Coopers E-80 live loading.

C Construction

The WSOR will coordinate train operations with the contractor to the extent possible, consistent with its operational requirements. The number and duration of work windows free of train operations available per day will vary depending on operational requirements. At the end of each window, leave the construction area in a condition that will allow for safe and normal train operations. Do not leave shoring extended above the top of rail within 12'-0" from the centerline of the nearest track. Train operations and available windows for work and hours available for work within windows are subject to change. Contact Roger Schaalma – Supervisor of Maintenance of Way, Wisconsin and Southern Railroad Company, 1890 East Johnson Street, Madison, WI 53704, Telephone (608) 620-2044 at least three working days in advance of construction operations that require implementation of the temporary shoring.

Provide, install and maintain adequate protection for people within the WSOR's right-of-way. Cover, guard, and/or protect all excavations, holes, or trenches within the WSOR's right-of-way when they are not being worked on. When leaving work site areas at night and over weekends, secure the areas and leave them in a condition that will ensure that railroad employees and other personnel, who may be working or passing through the area, are protected around excavations. Install handrails that are parallel to the track and not less than 9'-0" from the centerline of the nearest track. Handrails, fences, or other barrier methods must meet OSHA and FRA requirements. Backfill all excavations as soon as possible.

Upon completion of the need for the temporary shoring, remove the shoring or cut-off the shoring 4'-6" below the top of the adjacent rail. Backfill the space that is excavated but not occupied by the new permanent construction according to standard spec 206.3.13.

D Measurement

The department will measure Temporary Shoring Railroad in area by the square foot, acceptably completed, and the quantity to be paid for will be the sum of the areas of exposed faces of shoring constructed at the locations shown on the plans. Area will be determined from measurements taken in the plane of the exposed face of the shoring.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.701	Temporary Shoring Railroad	SF

Payment is full compensation for providing a verified design of the shoring; providing shop drawings and detailed plans; furnishing and hauling materials to each location; installing the shoring; maintaining the shoring as needed; removing the shoring; and for backfilling upon completion of the need for the shoring.

Temporary shoring not required by the plans and installed for the convenience of the contractor's operations will not be measured and paid for under this item.

154. Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP, Item SPV.0165.850.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in

the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes 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

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems (Concrete Panel MSE Walls). Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the concrete panels shall be furnished to the engineer at least 14 days prior to the start of panel production.

The department maintains a list of pre-approved Concrete Panel MSE Wall systems. To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section in Room 601 of the Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title

block shall include the project identification number and structure number. Design calculations and notes shall be on 8 1/2 inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the Concrete Panel MSE Wall shall be in compliance with the *AASHTO LRFD Bridge Design Specifications 6th Edition 2012*, (AASHTO LRFD) with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current *Standard Specifications for Highway and Structure Construction* (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the Department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the Concrete Panel MSE Wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the

design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Facing panels shall be designed according to AASHTO LRFD 11.10.2.3. The Facing panels shall also be designed to resist compaction stresses that occur during the wall erection. The minimum thickness of the facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 60 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 foot in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length, unless the plans indicate other.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads according to AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3” shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad. The leveling pad’s steps shall keep the bottom of the wall within one half the panel heights of the minimum embedment i.e. the minimum embedment plus up to one half the height of one

panel. Additional embedment may be detailed by the contractor, but will not be measured for payment.

Wall facing panels shall be installed on concrete leveling pads. The minimum cross section of the leveling pad shall be 6-inches deep by 1-foot wide.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All certifications related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Wall Facing

Wall facing shall consist of modular precast concrete face panels produced by a wet cast process, and have cast-in-place concrete pads or footings. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joints between panels shall be no more than 0.75 inch. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact.

A minimum of two bearing pads shall be used per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80, or high- density polyethylene pads with a minimum density of 0.034 lb/in^3 according to ASTM 1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile Fabric, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

B.3.2 Sample Panel

Provide sample wall panels with the textures and relief features as provided on each structure plan.

Supply and deliver to the engineer a 5-foot x 5-foot minimum sample panel for each panel type, demonstrating all wall components, for each structure with the specified pattern and colors for each structure. Prepare concrete surfaces of the sample panels and apply the stain using the same materials and in the same manner as proposed for each structure. Obtain the engineer's acceptance of the panel's texture and pattern prior to production of the panels

required for the contract. The accepted pattern and color test panels shall remain on the project site in a readily accessible location for the duration of the project. The accepted pattern and color sample panels will be the standard for the wall panels for each structure. Continue to provide test panels until accepted by the engineer.

The engineer will visually inspect panels for consistency upon arrival at the project. The panels shall have no substantial variation from the accepted test panel submitted for the project. All panels with substantial variation will be rejected and shall be removed from the project.

B.3.3 Backfill

Furnish and place backfill for Concrete Panel MSE Walls as shown on the plans and as hereinafter provided. Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer. The same backfill material must be used for the entire wall height, from the leveling pad to top of finished reinforced earth zone, for each stage of wall construction. For the purposes of this special provision, a stage is defined as constructing a full-height portion of wall along the wall alignment, not staging wall construction up the height of the wall. Horizontal changes in backfill strata up the height of the wall will not be allowed.

In addition to gradation requirements hereinafter provided, backfill material within the reinforced zone shall meet the following requirements.

Test	Method	Value (Galvanized)	Value (Aluminized Type 2)
pH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	
Angle of Internal Friction	AASHTO T-236*	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)	

*If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test), are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.2.1 Wall Backfill Type A

For typical wall backfill, provide and use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

B.3.2.2 Wall Backfill Type B

If the project schedule is such that the wall must be constructed during freezing weather, the engineer may allow use of alternate wall backfill materials. The alternate wall backfill materials will only be utilized when approved by the engineer. Alternate Wall Backfill, Type B shall comply with the requirements for Coarse Aggregate No.1 as given in standard spec 501.2.5.4.4. The alternate wall backfill must consist of crushed stone or crushed gravel.

For Alternate Wall Backfill, Type B, provide material conforming to the following gradation requirements as per WisDOT Standard Specifications for Highway and Structure Construction.

Sieve Size	Percentage by Weight Passing
	Size No. 1 Coarse Aggregate, Standard spec 501.2.5.4.4
1”	100
3/4”	90-100
3/8”	20-55
#4	0-10
#8	0-5

When Alternate Wall Backfill Type B (Coarse Aggregate No.1) is used in the reinforced zone as backfill, as required for construction during freezing weather, a geotextile shall be placed to separate the Alternate Wall Backfill Type B from the retained soil. If the wall is constructed in stages where portions of wall backfill consist of Wall Backfill Type A and adjacent portions consist of Alternate Wall Backfill Type B (Coarse Aggregate No.1), a geotextile must also be placed at the interface of and between the two different backfill materials for the entire height of the backfill to prevent migration of finer soil. The geotextile shall also be placed on top of the Alternate Wall Backfill Type B to provide separation from the fill above the wall reinforced zone. Adjoining sections of geotextile should be overlapped by a minimum of 12 in. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile Fabric, Type DF, Schedule B. Where geotextile is used it cannot be placed directly on top of wall reinforcement and it must be placed at one-half of the backfill lift thickness over the reinforcement.

Do not alternate wall backfill types along the height of the wall. Sloping of the Alternate Wall Backfill Type B from the top of the reinforced earth zone down to the leveling pad is acceptable as required for staging and as approved by the engineer. The section C.2 compaction requirements must be satisfied for this interim condition. Temporary shoring return walls, such as wire face MSE walls, are acceptable as approved by the engineer.

B.3.4 Soil Reinforcement

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be according to AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be according to ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be according to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

B.3.5 Miscellaneous

For cast in place concrete cap or coping, use poured concrete Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Use a wall leveling pad that consists of poured concrete, Grade A, A-FA, A-S, A-T, A-IS A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall panels, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back panels. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the panels.

C.2 Compaction

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf), or as modified as follows. If the gradation of the granular backfill is such that the P-200 material is less than 7% and the P-40 is less than 30%, a one-point Proctor test can be conducted in place of the 5-point Proctor. To complete this one-point test, compact the sample at a moisture content of 6%, then compute the actual (as-tested) sample moisture after completion of the test. Use Method B or D, and perform this test without removing oversize particles and without correction for coarse particles, as

per AASHTO T224. The one-point as-tested moisture content represents the optimum moisture, and the measured one-point density represents the maximum wet density of the material. From these values, the maximum dry density can be computed.

If the engineer allows and approves use of alternate wall backfill material, the compaction of Alternate Wall Backfill Type B (Coarse Aggregate No.1) should be performed with at least three passes of a vibratory compactor in two mutually perpendicular directions (at least 6 passes total), such that with additional compactive effort, no further densification is obtained as visually determined by the engineer. If additional densification is observed after three passes in the two directions, then the material must be re-compacted until no further visual densification is observed. The initial three passes of the compactor must be in the direction parallel to the wall alignment followed by the three passes in the direction perpendicular to the wall alignment. Density testing is not required for Alternate Wall Backfill Type B.

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect panel facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

C.3.2 Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

C3.3 Panel Tolerances

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The

supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be 3/4-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed 1/2-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a 3/4-inch joint separation between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this gap by the use of bearing pads and/or alignment pins. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

C.4 Quality Management Program

C.4.1 Quality Control Plan

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory 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 process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I

(NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density (ACT-NUC) perform field density and field moisture content testing. The HTCP Level I Grading Technician, Level I Aggregate Technician, or Assistant Certified Aggregate Technician (ACT) must also be present to document and confirm the required number of passes of the compaction equipment for the Alternate Wall Backfill Type B during wall backfill placement and compaction activities.

If an Assistant Certified Technician (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.

C.4.3 Equipment

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. 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.

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/materials. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D 6938 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter data into the applicable materials reporting system (MRS) software within 5 business days after results are available.

(3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8.15 for testing and gauge monitoring methods. Conduct density testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing. Density testing is not required for Alternate Wall Backfill Type B.

Perform one gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2000 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

Observe the compaction and densification process for the Alternate Wall Backfill Type B. The material must be compacted using the minimum number of passes of the compaction equipment until no further densification is obtained as visually determined. Provide documentation that the compaction met the required number of passes of the compaction equipment for the Alternate Wall Backfill Type B.

C.4.6 Department Testing

C.4.6.1 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.

C.4.6.2 Quality Verification (QV) Testing

(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 C.4.2 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 at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

(4) The department will conduct QV Proctor and gradation 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 this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

(6) The department will also provide personnel to be onsite and confirm the required number of passes of the compaction equipment for the Alternate Wall Backfill Type B during wall backfill placement and compaction activities on a random basis. This work does not relieve the contractor of the responsibility to observe and document fill placement and compaction as required in C.4.2 and C.4.4.

C.4.6.3 Independent Assurance (IA)

(1) Independent 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 C.4.6.4.

C.4.6.4 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 or work, 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.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils engineer two working days to review the foundation.

D Measurement

The department will measure Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP by the square foot acceptably completed, measured as the vertical area within the pay limits the contract plans show. No other measurement of quantities shall be made in the field. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.850	Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP	SF

Payment is full compensation for supplying a design and shop drawings; supplying sample panels; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings and leveling pad; constructing the retaining system including drainage system; providing backfill (Type A or Type B), backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing. Any temporary return walls, such as a wire face MSE wall, required to facilitate construction of a portion of wall with Backfill Type B is incidental to this bid item.

Parapets, railings, abutment bodies and other items above the wall cap or coping will be paid for separately. Vehicle barrier and its support will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price of topsoil, fertilizer, seeding or sodding and mulch, respectively.

155. Temporary Wall Wire Faced Mechanically Stabilized Earth LRFD/QMP, Item SPV.0165.851.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes 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

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Temporary Wire Faced Mechanically Stabilized Earth Wall systems (Temporary Wire Faced MSE Walls). Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

The department maintains a list of pre-approved Temporary Wire Faced MSE Wall systems. To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section in Room 601 of the Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall

include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the Wire Faced MSE Walls shall be in compliance with the *AASHTO LRFD Bridge Design Specifications 6th Edition 2012*, (AASHTO LRFD) with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current *Standard Specifications for Highway and Structure Construction* (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided in the wall plans.

The design of the Temporary Wire Faced MSE Walls by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facings shall be designed according to AASHTO 11.10.2.3. A fine metallic screen and a geotextile filter fabric shall be used at the front face of the wall to retain the fines of the soil mass.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of the wall. All soil reinforcement layers shall be connected to wire facing panels. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 12 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3” shall be maintained between any obstruction and reinforcement, and splicing steel reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the wall to follow the general slope of the ground line. Frost depth shall not be considered. Additional embedment may be detailed by the contractor, but will not be measured for payment.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All certifications related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 General

Provide steel reinforcement that meets the following requirements:

Welded Wire Fabric Soil Reinforcement

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A-1064 and be welded into the finished configuration according to ASTM A-1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

Steel Reinforcing Strips and Tie Strips

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM A-572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A-1011 Grade 50.

Welded Wire Fabric Facing Panels

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A-1064 and be welded into the finished configuration according to ASTM A-1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

Fasteners

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

Connector Pins and Mat Bars

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A-82.

Metallic Screen

Provide a steel metallic screen. The metallic screen should have an approximate opening of 1/4” and be made of 0.025” (minimum) gauge wire.

Geotextile Fabric

Geotextile fabric shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporate into the work.

B.3.2 Backfill

Furnish and place backfill for Temporary Wire Faced MSE Walls as shown on the plans and as herein provided.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material that conforms to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0-60
No. 200	0-15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	5 – 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236*	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.1)

*If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.
If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of

tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test), are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of these test results shall be less than 6 months old and performed by a certified independent laboratory.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and facing leveling pad or footing shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it is should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

C.2 Compaction

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf), or as modified as follows. If the gradation of the granular backfill is such that the P-200 material is less than 7% and the P-40 is less than 30%, a one-point Proctor test can be conducted in place of the 5-point Proctor. To complete this one-point test, compact the sample at a moisture content of 6%, then compute the actual (as-tested) sample moisture after completion of the test. Use Method B or D, and perform this test without removing oversize particles and without correction for coarse particles, as

per AASHTO T224. The one-point as-tested moisture content represents the optimum moisture, and the measured one-point density represents the maximum wet density of the material. From these values, the maximum dry density can be computed.

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall facing.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect welded wire facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place remaining courses in vertical or battered positions as shown on the contract plans.

The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstruction in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

When using a temporary wall for four months or more or when the installation of a permanent wall facing will not occur for four months or more after placement of any geotextile material, cover the exposed geotextile material in the wall as quickly as practical, to prevent damage caused by exposure to ultraviolet light.

C.3.2 Tolerances

The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.

For battered wire facing, the final deviation from the design batter shall be within ±1 inch for each 10 feet of battered wall height.

C.4 Quality Management Program

C.4.1 Quality Control Plan

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory 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. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (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.

C.4.3 Equipment

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. 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.

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/materials. Ensure that the gauge manufacturer or an

approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D 6938 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter data into the applicable materials reporting system (MRS) software within 5 business days after results are available.

(3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8.15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform one gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.1) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 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 two business days after the department obtains the sample.

C.4.6.2 Quality Verification (QV) Testing

(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 C.3.2 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 at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

(4) The department will conduct QV Proctor and gradation 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 this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

(1) Independent 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 C.4.6.4.

C.4.6.4 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 or work, 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.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils engineer two working days to review the foundation.

D Measurement

The department will measure Temporary Wall Wire Faced Mechanically Stabilized Earth LRFD/QMP by the square foot acceptably completed, measured as the vertical area within the pay limits the contract plans show. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.851	Temporary Wall Wire Faced Mechanically Stabilized Earth LRFD/QMP	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting,

developing/completing/documenting the quality management program, performing compaction testing; and for covering geotextile.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, deadmen system, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price of topsoil, fertilizer, seeding or sodding and mulch, respectively.
(20150824)

156. Roadside Infiltration Ditch Compost, Item SPV.0180.150.

A Description
This special provision describes providing and placing roadside infiltration ditch compost as shown on the plans and as hereinafter provided.

B Materials
Provide compost that meets the following requirements:

1. Is a well-decomposed, stable, weed-free, organic, commercially manufactured material resulting from the biological degradation and transformation of plant or animal-derived materials under controlled conditions designed to promote aerobic decomposition.
2. Is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
3. Is stable with regard to oxygen consumption and carbon dioxide generation.
4. Does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
5. Does not possess objectionable odors.
6. Has a moisture content with no visible free water or dust produced when handling the material.

Compost feedstock may include, but is not limited to, yard waste, clean chipped wood, farm crop residue, farm animal manure, or vegetable food waste. Do not use materials that have been treated with chemical preservatives as a compost feedstock or as wood chips.

Test in accordance with the United States Composting Council's “Test Methods for Examining of Composting and Compost (TMECC)”. Provide compost with the United States Composting Council's Seal of Testing Assurance Program (STA) certification and STA product label. The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Provide quality control documentation that includes the following:

1. The compost technical data sheet with the feedstock by percentage in the final compost product.

2. A certification that the compost meets federal and state health and safety regulations.
3. A copy of the producer's STA certification.
4. A certified report of tests performed by an STA-certified lab, verifying that the compost meets the requirements in the table below.

Compost must comply with the following:

PROPERTY	TEST METHOD	REQUIREMENT
Particle Size	*TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis	100% Passing, 3 inch 90 – 100% Passing, 1 inch 65 – 100% Passing, ¾ in 0 – 75% Passing, ¼ inch Maximum length 6 inches
pH	*TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units	6.0-8.0
Soluble Salts	*TMECC 04.10-A Electrical Conductivity 1:5 Slurry Method dS/m (mmhoscm)	Below 5.0
Moisture Content	*TMECC 03.09-A Total Solids & Moisture at 70+/- 5 deg C % Wet Weight Basis	35-50
Organic Matter Content	*TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis	Minimum 40% Max 60% ash content
Maturity	*TMECC 05.05-A Germination and Vigor "Germination and Root Elongation" Seed Emergence Seedling Vigor % Relative to Positive Control	80 or Above
Physical Contaminants	*TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal %>4mm fraction, dry mass (weight) basis	Less than 1%

PROPERTY	TEST METHOD	REQUIREMENT
Pathogens	Shall meet Class A requirements for pathogens as specified in NR 204.07(6)(a)	Pass
Chemical Contaminants	Shall meet pollutant concentrations as specified in NR 204.07(5)(c)	Pass
Carbon to Nitrogen Ratio	C:N	10:1 – 20:1

*TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Immediately remove from the project, compost not conforming to the above requirements or taken from a source other than those tested, and replace the compost at no cost to the department.

The Engineer reserves the right to sample compost at the jobsite.

C Construction

C.1 Construction Site Stabilization

Prevent construction site runoff from disturbed areas from entering and contaminating the roadside infiltration ditch.

Divert runoff from pervious areas away from the infiltration ditch until the pervious areas have undergone final stabilization. Include how this diversion will be accomplished as part of the Erosion Control Implementation Plan (ECIP) submittal.

Final stabilization is the condition achieved on pervious areas when uniform perennial vegetative cover has been established with a density of at least 70 percent.

If runoff from disturbed areas enters and contaminates the roadside infiltration ditch, restore the affected areas to their condition prior to the runoff contamination at no additional cost to the department.

C.2 Suitable Weather

Suspend roadside infiltration ditch construction operations during periods of rainfall or snowmelt. Suspend roadside infiltration ditch construction if ponded water is present or if residual soil moisture contributes significantly to the potential for soil smearing, clumping or other forms of compaction.

C.3 Placement and Settling of Roadside Infiltration Ditch Compost
Place 4-inches of roadside infiltration ditch compost on top of previously placed roadside infiltration ditch granular backfill sand, as detailed in the plan, within the same calendar day of the roadside infiltration ditch granular backfill sand placement. The placement of roadside infiltration ditch granular backfill sand is paid for separately.

Rototill the 4-inches of roadside infiltration ditch compost into the previously placed roadside infiltration ditch granular backfill sand to an elevation approximately 1-foot below the proposed elevation of the roadside infiltration ditch.

Methods to induce mild settling of the roadside infiltration ditch compost layer, such as lightly tamping, may be used to prepare a stable planting medium and to stabilize the ponding depth. Vibrating-style plate compactors or other vibratory compactors are not allowed to induce settling.

C.4 Compaction Avoidance
During the roadside infiltration ditch construction, cordon off the area dedicated to the roadside infiltration ditch to prevent access by equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires. Acceptable equipment for constructing the infiltration ditch includes light equipment with turf type tires and/or marsh equipment or wide-track loaders.

During placement of the roadside infiltration ditch compost, avoid compaction beyond that allowed in section C.3 "Placement and Settling of Roadside Infiltration Ditch Compost."

Avoid smearing during the placement of the roadside infiltration ditch compost of the previously placed roadside infiltration ditch granular backfill sand layer and the roadside infiltration ditch compost layer.

C.5 Compaction Remediation
If compaction occurs, beyond that allowed in section C.3 "Placement and Settling of Roadside Infiltration Ditch Compost", re-fracture the soil to a depth of at least 12 inches. If smearing occurs, correct the smeared areas of the interface by raking or rototilling. Restore compacted or smeared areas at no additional cost to the department.

D Measurement
The department will measure Roadside Infiltration Ditch Compost by the square yard acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.150	Roadside Infiltration Ditch Compost	SY

Payment is full compensation for providing, stockpiling, loading, hauling, placing, and rototilling the material; and for providing necessary protection from construction site stormwater runoff.

157. Excavation, Hauling, and Disposal of Contaminated Soil, Item SPV.0195.700.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of contaminated soil at a DNR approved landfill. The closest DNR approved landfills are:

Waste Management Madison Prairie Landfill
6002 Nelson Road
Sun Prairie, WI 53590
(608) 837-9031

Janesville City Landfill
225 Black Ridge Road
Janesville, WI 53545
(608) 755-3110

Advanced Disposal Services Mallard Ridge Landfill
W8470 State Road 11
Delevan, WI 53115
(262) 724-3257

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

A.2 Notice to contractor

The department has completed testing for soil contamination for similar creosote bridge timber piles. Testing indicated that creosote-contaminated soil is potentially present within five feet of the creosote timbers. If encountered, contaminated soil maybe suitable for reuse as backfill on the project or disposed at a DNR approved landfill. In order to determine the proper waste characterization, provide for the temporary stockpiling of excavated soils adjacent the creosote timbers, or complete test pits to provide the environmental consultant soil samples from immediately adjacent the creosote timbers. The environmental consultant will advise the contractor within five business days of the disposal requirements.

A.3 Coordination

Coordinate work under this contract with the environmental consultant retained by the department:

Consultant:	TRC Environmental Corporation
Contact:	Mr. Dan Haak
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
e-mail:	dhaak@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on visual observations and field screening of soil that is excavated;

2. Identifying contaminated soils to be hauled to the DNR approved landfill;

3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and

4. Obtaining the necessary approvals for disposal of contaminated soil from the DNR approved landfill.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved landfill that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the landfill.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.4 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information

regarding the investigations, including waste characterization within the project limits, contact Jennifer Grimes with the department at (608) 844-1147.

A.5 Health and Safety Requirements

Supplement standard Spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with creosote or other petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of contaminated soil at the landfill facility is subject to the facility's safety policies, which include as a minimum:

1. No smoking is allowed on-site.
2. Maximum speed limit of 15 mph on access roads and 5 mph while in active area.
3. All persons entering the active area must wear the following personal protective equipment: hard hats, high visibility clothing, steel toed work boots, safety glasses, and seat belts.
4. Minimum requirement for spacing is as follows:
    a. A minimum 15 foot Safety Zone is required between landfill equipment and all personnel at all times.
    b. Do not back up directly behind the compactor or dozer.
    c. Trucks must yield the right-of-way to landfill equipment.
    d. 15 feet required between trucks.
5. Only the driver can exit the truck and must stay within 4 feet of the truck. Use of Spotter is prohibited. Helper (if any), must remain in vehicle while unloading.
6. Tailgates of all vehicles may only be opened while in the active area and must be closed prior to exiting the active area.
7. Cleaning out vehicles must be done in designated area, not in the active area. Vehicles must be properly locked out / tagged out according to OSHA during the clean out process.
8. No scavenging is allowed.
9. Horseplay is prohibited.

Violation of the landfill's safety policy will result a verbal or written warning explaining this policy and may result in the loss of dumping privileges.

Immediately report all accidents and injuries at the landfill to landfill management.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

The environmental consultant will periodically examine excavated soil during excavations in the areas of soil contamination from creosote treated timber bridge pilings within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal at a DNR approved landfill or can be beneficially re-used on-site. The environmental consultant will evaluate excavated soil based on field screening results and visual observations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 10 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, broken pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site disposal at the DNR approved landfill, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 200 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material according to NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 5 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the DNR approved disposal facility by the contractor or, if characterized as hazardous waste, by

the department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

Directly load and haul soils designated by the environmental consultant for off-site disposal to the DNR approved landfill. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids. Verify that the vehicles used to transport contaminated material are licensed for such activity according to applicable state and federal regulations.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer and the environmental consultant.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas. If dewatering of perched groundwater or stormwater is required, allow stormwater to settle for 24 hours after a rain event, after which the water shall be managed as uncontaminated dewatering, unless the environmental consultant has evidence that the water will require treatment and/or off-site disposal.

Contaminated groundwater generated from dewatering activities within the contaminated areas may exceed the surface water discharge limits for petroleum compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming, ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statues, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Soil in tons of contaminated soil, accepted by the DNR approved disposal facility as documented by weight tickets generated by the disposal facility.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.700	Excavation, Hauling, and Disposal of Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and for dewatering of soils prior to transport, if necessary.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __9__ *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __4__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

I. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

II. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE [DBE] PROGRAM IMPLEMENTATION

1. Description

a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:

(1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.

(2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance. http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

(1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:
   i. Produce accurate and complete quotes.
   ii. Understand highway plans applicable to their work.
   iii. Understand specifications and contract requirements applicable to their work.
   iv. Understand contracting reporting requirements.

(2) Wisconsin DOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

(3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.

b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.

c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.

d. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

e. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

a. **Department's DBE Evaluation Process**
WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

b. **Documentation Submittal**
The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form

[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at DBE_Alert@dot.wi.gov (DBE_Alert@dot.wi.gov) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**
If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.

ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:

(a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.

(b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**
If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

b. Prime Contractors should:

(1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.

(2) Prime contractors may request assistance with DBE outreach and follow-up by contacting the department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: DOTDBESupportServices@dot.wi.gov.

(3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A*. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.

i. Solicit quotes from certified DBE firms who match 'possible items to subcontract' using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which you are seeking quotes to DOTDBESupportServices@dot.wi.gov.

ii. SBN is the preferred outreach tool. https://www.bidx.com/wi/main. Other acceptable means include postal mail, email, fax, phone call.

(a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.

(b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.

(c) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up solicitation.

iii. Upon request, provide interested DBE firms with adequate information about plans, specifications and the requirements of the contract by letter, information session, email, phone call and/or referral.

iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit or insurance if requested.

v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:

(a) Email to all prospective DBE firms in relevant work areas.

(b) Phone call log to DBE firms who express interest via written response or call.

(c) Fax/letter confirmation

(d) Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.

(1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, ***a discussion with the DBE firm*** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.

(2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

(3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. “Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as ‘all or none’ quote to the prime.” When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms’ quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.

i. Compare bid items common to both quotes, noting the reasonableness in the price comparison.
ii. Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
(2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
(3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
(4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
(5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

6. Use of Joint Checks

The *use of joint checks is allowable if it is a commonly recognized business practice in* the material industry. A joint check is defined as a two-party check between a DBE, a prime contractor and the regular dealer of materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE in cases where the prime has submitted the DBE and material for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
   (1) Request should be made when the DBE Commitment form or Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
   (2) Approval/Permission must be granted prior to the issuance of any joint checks.
   (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
   (4) The joint check for supplies must be strictly for the cost of supplies.

b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following.
   (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price and delivery of materials;
   (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor,
   (1) The prime agrees to furnish the check used for the payment of materials/supplies under the contract.
   (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractors negotiated unit price.

7. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.

b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

8. Department's Criteria for DBE Participation

Directory of DBE firms

a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:
   http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

9. Counting DBE Participation

Assessing DBE Work

a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:

b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.

c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.

d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.

e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.

f. It is the prime contractor’s responsibility to determine whether the work that is committed and/or contracted to a DBE certified firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

g. It is the prime contractor’s responsibility to assess the DBE firm’s ability to perform the work for which s/he is committing/contracting the DBE to do. Note that the department encourages the prime contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

10. Commercially Useful Function

a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE is performing a commercially useful function if the following conditions are met:
   (1) For contract work, the DBE is responsible for executing a distinct portion of the contract work and it is carrying out its responsibilities by actually performing, managing, and supervising that work.
   (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

12. Credit Evaluation for Manufacturers, Suppliers, Brokers

The department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The department will count the material and supplies that a DBE provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

a. Manufacturers
   (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
   (2) If the materials or supplies are obtained from a DBE manufacturer, count **100%** percent of the cost of the materials or supplies toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
   (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
   (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
      i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
      ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

c. Brokers, Transaction Expediters, Packagers, Manufacturers Representatives
   (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit; however, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives or other persons who arrange or expedite transactions.
   (2) Brokerage fees have historically been calculated as **10%** of the purchase amount.
   (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site.
   (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and documentation of the calculations used as the basis for the purchase agreement, subcontract or invoice. *WisDOT recognizes that the amount on the Attachment 'A' form may be more or less than the amount on the invoice*. Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

15. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.

b. DBE credit will be evaluated and confirmed by the DBE Office for any contracts on which the mentor protégé team identifies itself to the DBE Office as a current participant of the Mentor Protégé Program.

c. Refer to WisDOT's Mentor Protégé guidelines for guidance on the number of contracts and amount of DBE credit that can be counted on any WisDOT project.

16. DBE Replacement or Termination

Contractual Requirement

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

Contractor Considerations

a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [DT1506] without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.

c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.

d. In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason or is terminated from a contract, the prime contractor is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.

e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.

(1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
   i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your expectations for successful performance on the contract. Document these efforts in writing.
   ii. If those efforts fail, provide written notice to the DBE subcontractor of your *intent to* request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
   iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
   iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days to respond, in writing. **EXCEPTION:** The prime contractor must provide a verifiable reason for a response period shorter than five days. For example a WisDOT project manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
   v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

The Request to Replace or Terminate a DBE

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.

Examples of Good Causes to Replace a DBE according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract.
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Evaluation and Response to the Request
If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at DBE_Alert@dot.wi.gov or by calling 608-267-3849.

17. DBE Utilization beyond the approved DBE Commitment Form DT1506

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

a. Send an email to the DBE Engineer at DBE_Alert@dot.wi.gov describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.
If the scope change added work for a participating DBE; list the date and reason for the scope change.

b. Forward a complete, signed Attachment 'A' form to the DBE Office at DBE_Alert@dot.wi.gov. A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

18. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

19. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFW SAMPLE MEMORANDUM

TO:	DBE FIRMS
FROM:	POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT:	**REQUEST FOR DBE QUOTES** **LET DATE & TIME**
DATE:	MONTH DAY YEAR
CC:	DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days. Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at http://roadwaystandards.dot.wi.gov/hcci/

All questions should be directed to:

Project Manager, John Doe,
Phone: (000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTATION

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person	DBE Contractor Contact Person
Phone:	Phone
Fax:	Fax
Email:	Email

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B
BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE 'training session' Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C
Types of Efforts considered in determining GFE
This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a

contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E
Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription.
Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.

2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request.
    d. Add attachments to sub-quotes.

3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.

4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a "Good Faith" effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.

2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
    c. Add attachments to a sub-quote.

3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.

4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.

5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.

6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
    b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588.

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 PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $1.50 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

109.1.1.2 Bid Items Designated as Pay Plan Quantity

Replace the entire text with the following effective with the June 2017 letting:

109.1.1.2.1 General

(1) If the schedule of items designates a bid item with a **P** in the item description, the department will use the plan quantity, the approximate quantity the schedule of items shows, for payment unless one or both of the following occurs:

- Scope changes regardless of the magnitude of the revised work.
- Errors and omissions that affect the plan quantity.

109.1.1.2.2 Scope Changes

(1) For engineer-directed quantity increases, the engineer will issue a contract change order for extra work, establish the cost of the added work as specified in 109.4, and measure the revised work. For engineer-directed quantity decreases, the engineer will issue a contract change order to adjust the plan quantity under the designated bid item.

109.1.1.2.3 Errors and Omissions

(1) The engineer may issue a change order under 105.4(5) to adjust the plan quantity for an error or omission and may revise the contract unit price as specified in 109.4.

305.2.1 General

Replace paragraph two with the following effective with the June 2017 letting:

(2) Where the contract specifies or allows 1 1/4-inch base, do not place reclaimed asphalt, reprocessed material, or blended materials below virgin aggregate materials unless the contract specifies or the engineer allows in writing.

310.2 Materials

Replace paragraph three with the following effective with the June 2017 letting:

(3) Do not place reclaimed asphalt, reprocessed material, or blended materials below open-graded base unless the contract specifies or the engineer allows in writing.

320.3.1.1 Consolidating, Finishing, and Curing

Replace paragraph two with the following effective with the June 2017 letting:

(2) Cure concrete base as specified for concrete pavement in 415.3.12. Use wax-based curing compound conforming to 501.2.9.

390.3.2 Concrete Patching

Replace paragraph two with the following effective with the June 2017 letting:

(2) Cure exposed patches as specified for concrete pavement in 415.3.12. Use wax-based curing compound conforming to 501.2.9. Protect as specified for concrete pavement in 415.3.14. Open to traffic as specified for concrete base in 320.3.

390.3.4 Special High Early Strength Concrete Patching

Replace the entire text with the following effective with the June 2017 letting:

(1) Construct as specified for special high early strength repairs under 416.3.8 except as follows:

- The contractor may delay removal for up to 14 calendar days after cutting the existing pavement.
- Open to traffic as specified for concrete base in 320.3.

(2) Cure exposed patches as specified for concrete pavement in 415.3.12. Use wax-based curing compound conforming to 501.2.9. Do not apply excess curing compound that could cause slippery pavement under traffic.

440.3.5.2 Corrective Actions for Localized Roughness

Replace paragraph two with the following effective with the September 2016 letting:

(2) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without physically riding that work. The engineer will not direct corrective action on bridges without authorization from the department's bureau of structures.

450.3.1.1.4 Recording Truck Loads

Replace the entire text with the following effective with the December 2016 letting:

(1) If not using automatic batch recording, install a digital recorder as part of the platform truck or storage silo scales. Ensure that the recorder can produce a printed digital record of at least the gross or net weights of delivery trucks. Provide gross, tare, net weights, load count, and the cumulative tonnage; the date, time, ticket number, WisDOT project ID, and mix 250 number; and the mix type including the traffic, binder, and mix designation codes specified in 460.3.1. Ensure that scales cannot be manually manipulated during the printing process. Provide an interlock to prevent printing until the scales come to rest. Size the scales and recorder to accurately weigh the heaviest loaded trucks or tractor-trailers hauling asphaltic mixture. Ensure that recorded weights are accurate to within 0.1 percent of the nominal capacity of the scale.

(2) Ensure that tickets identify additives not included in the mix design submittal. Indicate on the ticket if the mixture will be placed under a cold weather paving plan and identify the warm mix additive and dosage rate required under 450.3.2.1.2.2.

455.3.2.1 General

Replace paragraph one with the following effective with the December 2016 letting:

(1) Apply tack coat only when the air temperature is 32 F or more unless the engineer approves otherwise in writing. Before applying tack coat ensure that the surface is reasonably free of loose dirt, dust, or other foreign matter. Do not apply to surfaces with standing water. Do not apply if weather or surface conditions are unfavorable or before impending rains.

460.2.1 General

Replace the entire text with the following effective with the December 2016 letting:

(1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, recycled material if used, warm mix asphalt additive or process if used, and asphaltic material. Design mixtures conforming to table 460-1 and table 460-2 to 4.0% air voids to establish the aggregate structure.

(2) Determine the target JMF asphalt binder content for production from the mix design data corresponding to 3.0% air voids (97% Gmm) target at the design the number of gyrations (Ndes). Add liquid asphalt to achieve the required air voids at Ndes.

(3) For SMA, determine the target JMF asphalt binder content for production from the mix design data corresponding to 4.0% air voids (96% Gmm) target at Ndes.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the December 2016 letting:

(1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75-µm	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent[1]	+1.3/-1.0	+1.0/-0.7
VMA in percent[2]	- 0.5	- 0.2

[1] For SMA, JMF limits are +/-1.3 and warning limits are +/-1.0.

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

460.2.8.2.1.6 Job Mix Formula Adjustment

Replace paragraph one with the following effective with the December 2016 letting:

(1) The contractor may request adjustment of the JMF according to CMM 8-36.6.13.1. Have an HMA technician certified at a level appropriate for process control and troubleshooting or mix design submit a written JMF adjustment request. Ensure that the resulting JMF is within specified master gradation bands. The department will have a certified Hot Mix Asphalt, Mix Design, Report Submittals technician review the proposed adjustment and, if acceptable, issue a revised JMF.

460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2016 letting:

(1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

460.3.3.1 Minimum Required Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) Compact all layers of HMA mixture to the density table 460-3 shows for the applicable mixture, location, and layer.

TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT and MT	HT	SMA[5]
TRAFFIC LANES[2]	LOWER	93.0[3]	93.0[4]	___
	UPPER	93.0	93.0	___
SIDE ROADS, CROSSOVERS, TURN LANES, & RAMPS	LOWER	93.0[3]	93.0[4]	___
	UPPER	93.0	93.0	___
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0	___
	UPPER	92.0	92.0	___

[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

[2] Includes parking lanes as determined by the engineer.

[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[4] Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[5] The minimum required densities for SMA mixtures are determined according to CMM 8-15.

460.5.2.1 General

Replace paragraph six with the following effective with the December 2016 letting:

(6) If during a QV dispute resolution investigation the department discovers mixture with 1.5 > Va > 5.0 or VMA more than 1.0 below the minimum allowed in table 460-1, and the engineer allows that mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

460.5.2.3 Incentive for HMA Pavement Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) If the lot density is greater than the minimum specified in table 460-3 and all individual air voids test results for that mixture placed during the same day are within 2.5 - 4.0 percent, the department will adjust pay for that lot as follows:

INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY[1]

PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM	PAY ADJUSTMENT PER TON[2]
From -0.4 to 1.0 inclusive	$0
From 1.1 to 1.8 inclusive	$0.40
More than 1.8	$0.80

[1] SMA pavements are not eligible for density incentive.

[2] The department will prorate the pay adjustment for a partial lot.

501.2.6 Fly Ash

Replace the entire subsection with the following effective with the December 2016 letting:

501.2.6.1 General

(1) Fly ash is defined as a finely divided residue resulting from the combustion of coal in a base loaded electric generating plant, transported from the boiler by flue gases, and later collected, generally by precipitators. Use fly ash in concrete manufactured by facilities and processes known to provide satisfactory material.

(2) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.

(3) Use only one source of fly ash for a bid item of work under the contract, unless the engineer directs or allows otherwise in writing.

(4) Prequalify any proposed fly ash source as follows: The contractor shall obtain a copy of the certified report of tests or analysis made by a qualified independent laboratory, recognized by the department under 501.2.2, showing full and complete compliance with the above specification from the fly ash manufacturer and furnish it to the engineer. Provide this report to the engineer at least 14 calendar days before using the fly ash.

(5) The manufacturer shall retain test records for at least 5 years after completing the work, and provide these records upon request.

501.2.6.2 Class C Ash

(1) Conform to ASTM C618 class C except limit the loss on ignition to a maximum of 2 percent.

501.2.6.3 Class F Ash

(2) Furnish a class F fly ash from a source listed on the department's approved product list, and conform to ASTM C618 class F except limit the loss on ignition to a maximum of 2 percent.

502.3.7.8 Floors

Replace paragraph sixteen with the following effective with the September 2016 letting:

(16) The finished bridge floor shall conform to the surface test specified in 415.3.10. The engineer will not direct corrective grinding without authorization from the department’s bureau of structures.

503.3.2.1.1 Tolerances

Increase the "length of beam" max tolerance for prestressed concrete I-type girders from 3/4" to 1 1/2" effective with the December 2016 letting:

PRESTRESSED CONCRETE I-TYPE GIRDERS

Length of beam..... +/- 1/8" per 10', up to a max of +/- 1 1/2"

Errata

Make the following corrections to the standard specifications:

104.2.2.5 Change Orders for Eliminated Work

Correct errata by changing "eliminated bid items" to "eliminated work."

104.2.2.5 Change Orders for Eliminated Work

(1) The department has the right to partially eliminate or completely eliminate work the project engineer finds to be unnecessary for the project. If the project engineer partially eliminates or completely eliminates work, the project engineer will issue a contract change order for a fair and equitable amount as specified in 109.5.

105.4 Coordination of the Contract Documents

Correct errata to change "apparent error or omission" to just "error or omission."

(5) Neither the contractor nor the department may take advantage of an error or omission in the contract. Notify the engineer immediately as specified in 104.3 upon discovering an error or omission. The engineer will offer an interpretation and make the necessary corrections.

105.13.4 Content of Claim

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) Include the following 5 items in the claim.

1. A concise description of the claim.
2. A clear contractual basis for the claim. This should include reference to 104.2 on revisions to the contract and as appropriate, specific reference to contract language regarding the bid items in question.
3. Other facts the contractor relies on to support the claim.
4. A concise statement of the circumstances surrounding the claim and reasons why the department should pay the claim. Explain how the claimed work is a change to the contract work.
5. A complete breakdown of the costs used to compile the claim. Include copies of all EquipmentWatch equipment rental rate sheets used, with the applicable number highlighted.

108.13 Terminating the Contract for Convenience of the Department

Correct errata by changing "eliminated bid items" to "eliminated work."

(4) If the department orders termination of the contract for convenience, the department will pay for all completed work as of that date at the contract price. The department will pay for partially completed work at agreed prices or by force account methods specified in 109.4.5 provided, however, that payment does not exceed the contract price for the bid item under which the work was performed. The department will pay for work eliminated by the termination only to the extent provided under 109.5. The department will pay for new work, if any, at agreed prices or paid for by force account methods specified in 109.4.5.

109.2 Scope of Payment

Correct errata to clarify that work under the contract is included in payment unless specifically excluded.

(2) The department will pay for the quantity of work acceptably completed and measured for payment as the measurement subsection for each bid item specifies. Within the contract provide means to furnish and install the work complete and in-place. Payment is full compensation for everything required to perform the work under the contract including, but not limited to, the work elements listed in the payment subsection. Payment also includes all of the following not specifically excluded in that payment subsection:

1. Furnishing and installing all materials as well as furnishing the labor, tools, supplies, equipment, and incidentals necessary to perform the work.
2. All losses or damages, except as specified in 107.14, arising from one or more of the following:
   - The nature of the work.
   - The action of the elements.
   - Unforeseen difficulties encountered during prosecution of the work.
3. All insurance costs, expenses, and risks connected with the prosecution of the work.
4. All expenses incurred because of an engineer-ordered suspension, except as specified in 104.2.2.3.
5. All infringements of patents, trademarks, or copyrights.
6. All other expenses incurred to complete and protect the work under the contract.

109.4.5.5.1 General

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(2) The department will pay for use of contractor-owned equipment the engineer approves for force account work at published rates. The department will pay the contractor expense rates, as modified in 109.4.5.5, given in EquipmentWatch Cost Recovery (formerly Rental Rate Blue Book) . Base all rates on revisions effective on January 1 for all equipment used in that calendar year.

http://equipmentwatch.com/estimator/

109.4.5.5.2 Hourly Equipment Expense Rates (Without Operators)

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) The contractor shall determine, and the department will confirm, hourly equipment expense rates as follows:

HEER = [RAF x ARA x (R/176)] + HOC

Where:

HEER = Hourly equipment expense rate.
RAF = EquipmentWatch regional adjustment factor.
ARA = EquipmentWatch age rate adjustment factor.
R = Current EquipmentWatch monthly rate.
HOC = EquipmentWatch estimated hourly operating cost.

(2) The EquipmentWatch hourly operating cost represents all costs of equipment operation, including fuel and oil, lubrication, field repairs, tires, expendable parts, and supplies.

109.4.5.5.3 Hourly Equipment Stand-By Rate

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) For equipment that is in operational condition and is standing-by with the engineer's approval, the contractor shall determine, and the department will confirm, the hourly stand-by rate as follows:

HSBR = RAF x ARA x (R/176) x (1/2)

Where:

HSBR = Hourly stand-by rate.

RAF = EquipmentWatch regional adjustment factor.

ARA = EquipmentWatch age rate adjustment factor.

R = Current EquipmentWatch monthly rate.

(2) The department will limit payment for stand-by to 10 hours or less per day up to 40 hours per week. The department will not pay the contractor for equipment that is inoperable due to breakdown. The department will not pay for idle equipment if the contractor suspends work or if the contractor is maintaining or repairing the equipment.

109.4.5.5.4 Hourly Outside-Rented Equipment Rate

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) If the contractor rents or leases equipment from a third party for force account work, the contractor shall determine, and the department will confirm, the hourly outside-rented equipment rate as follows:

HORER = HRI + HOC

Where:

HORER = Hourly outside-rented equipment rate

HRI = Hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account work

HOC = EquipmentWatch hourly operating cost.

109.5 Eliminated Work

Correct errata by changing "eliminated bid items" to "eliminated work."

109.5 Eliminated Work

(1) If the department partially eliminates or completely eliminates work as specified in 104.2.2.5, the department will pay contractor costs incurred due to that elimination. The department will pay a fair and equitable amount covering all costs incurred as of the date the work was deleted. Immediately submit a certified statement covering all money expended for the eliminated work.

(2) The department will execute a contract change order for the following costs related to eliminated work:

1. Preparation expenses defined as follows:
   - If preparation for the eliminated work has no value to other contract work, the department will reimburse the contractor in full for that preparation.
   - If preparation for the eliminated work is distributed over other contract work, the department will prorate reimbursement based on the value of the eliminated work compared to the total value of associated contract work.
2. All restocking and cancellation charges.
3. A markup for applicable overhead and other indirect costs paid as 7 percent of the contract price of the work actually eliminated.

(3) If the department partially eliminates or completely eliminates work, the department may pay for, and take ownership of, materials or supplies the contractor has already purchased.

201.3 Construction

Correct errata by changing the link from 201.3(14) to 201.3(15).

(16) Dispose of clearing and grubbing debris before proceeding with grading operations. If the contractor intends to burn debris but cannot secure burning permits on schedule, do not delay removing clearing debris from areas affected by other operations. While waiting to secure burning permits, pile clearing and grubbing debris beyond the limits affected by other work. Do not leave elm debris beyond the limits specified in 201.3(15).

204.3.2.2.1 General

Correct errata by removing the reference to 490 which was deleted effective with the 2017 spec.

(1) Under the Removing Pavement bid item, remove concrete pavements, concrete alleys, concrete driveways, or rigid base including all surfaces or other pavements superimposed on them.

440.1 Description

Correct errata to replace "150 feet of the points of curvature" with " entry and exit curves".

(2) Profile the final mainline riding surfaces greater than 1500 feet in continuous length. Include bridges, bridge approaches, and railroad crossings in the calculation of IRI. Exclude roundabouts and pavements within their entry and exit curves from the calculation of IRI.

460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Correct 460.2.8.2.1.3.1 (6) to change the reference from ASTM D4867 to AASHTO T283.

(6) Also conduct field tensile strength ratio tests according to AASHTO T283 on mixtures requiring an antistripping additive. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are either below the spec limit or less than the mixture design JMF percentage value by 20 or more, notify the engineer. The engineer and contractor will jointly determine a corrective action.

506.2.8.3 Expansion Bearing Assemblies

Correct errata to update ASTMs and change the specified melting point from 622 +/- 3 to 621 +/- 18 F.

(6) Use PTFE materials that are virgin polytetrafluoroethylene fluorocarbon resin, unfilled conforming to ASTM D4894. The finished materials shall exhibit the following physical properties:

REQUIREMENT	TEST METHOD	UNFILLED VALUE
Hardness at 78 F	ASTM D2240 Shore "D"	50-65
Tensile strength, psi	ASTM D1708	2800 Min.
Elongation, percent	ASTM D1708	200 Min.
Specific gravity	ASTM D792	2.16 +/- 0.03
Melting point	ASTM D4591	621 +/- 18 F

514.3.2 Adjusting Floor Drains

Correct errata by clarifying priming and painting requirements for adjusted floor drains.

(1) If the plans show or contract specifies, provide new drain frames and inserts. Fabricate, blast clean, and apply a shop coat of primer. Touch up areas of damaged primer after installation with a department-approved organic zinc-rich primer.

657.2.2.1.1 General

Correct errata by eliminating the reference to department provided arms in the last sentence.

(1) Furnish shop drawings as specified in 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient detail to allow satisfactory review and show the outside diameters of the pole at the butt, top, and splice locations the plans show. Show the width, depth, length, and thickness of all material, and list pertinent ASTM specification designations and metal alloy designations together with the tensile strength of metallic members. Provide tightening procedures for arm-to-pole connections on the shop drawings.

657.2.2.1.4 Poles Designed Under Legacy Standards

Correct errata by deleting the entire subsection to eliminate redundant language.

657.2.2.2 Trombone Arms

Correct errata by changing the reference from 657.2.2.1.3 to 657.2.2.1.2.

(1) Design aluminum trombone arms as specified in 657.2.2.1.2 based on the completed maximum loading configuration the plans show. Furnish shop drawings conforming to 657.2.2.1.1 that show the width, depth, length, and thickness of all members. Also list the ASTM alloy designation and strength of each aluminum member on the shop drawings.

715.3.1.2.2 Lots by Lane-Feet

Correct errata ride spec reference from "the special provisions" to "440.3.4.2."

(1) The contractor may designate slip-formed pavement lots and sublots conforming to the following:

- Lots and sublots are one paving pass wide and may include one or more travel lanes, integrally placed shoulders, integrally placed ancillary concrete, and pavement gaps regardless of mix design and placement method.
- Sublots are 1000 feet long for single-lane and 500 feet long for two-lane paving. Align sublot limits with ride segment limits defined in 440.3.4.2. Adjust terminal sublot lengths to match the project length or, for staged construction, the stage length. Ensure that sublot limits match for adjacent paving passes. Pavement gaps do not affect the location of sublot limits.
- Create lots by grouping 4 to 8 adjacent sublots matching lots created for adjacent paving passes.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. 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 Paul Ndon at (414) 438-4584 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 contact Paul Ndon. 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

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: 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, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant 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 first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction 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 or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant 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 or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) 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;

(3) 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 offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction 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 or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. 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 participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant 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 or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Non-discrimination Provisions

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

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

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

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

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

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

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

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

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

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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/hcciDocs/contracting-info/ws4567.doc

Effective February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Effective with February 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. Prevailing Wage Rates, Hours of Labor, and Payment of Wages
II. Payroll Requirements
III. Postings at the Site of the Work
IV. Wage Rate Distribution
V. Additional Classifications

I. PREVAILING WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) attached hereto and made a part hereof furnishes the prevailing wage rates pursuant to Section 84.062 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the 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 84.062, Stats. Apprentices shall be paid at rates not less than those prescribed in their apprenticeship contract.

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 16.856 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 base rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half:

January 1
Last Monday in May
July 4
First Monday in September
Fourth Thursday in November
December 25
The day before if January 1, July 4 or December 25 falls on a Saturday, and

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, euclid 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.

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 84.062 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 and accessible place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 84.062 of the Wisconsin Statutes.

b. A copy of the U.S. Department of Labor (Davis-Bacon, Minimum Wage Rates).

c. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. WAGE RATE REDISTRIBUTION

A contractor or subcontractor performing work subject to a Davis-Bacon wage determination may discharge its minimum wage obligations for the payment of both straight time wages and fringe benefits by (1) paying both in cash, (2) making payments or incurring costs for bona fide fringe benefits, or (3) by a combination thereof. Thus, under the Davis-Bacon a contractor may offset an amount of monetary wages paid in excess of the minimum wage required under the determination to satisfy its fringe benefit obligations. *See* 40 USC 3142(d) and 29 CFR 5.31.

V. ADDITIONAL CLASSIFICATIONS

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5(a)(1)(ii)). The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.

The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

a. The work to be performed by the classification requested is not performed by a classification in the wage determination; and

b. The classification is utilized in the area by the construction industry; and

c. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

General Decision Number: WI170010 04/28/2017 WI10

Superseded General Decision Number: WI20160010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	02/10/2017
3	02/24/2017
4	03/17/2017
5	03/31/2017
6	04/21/2017
7	04/28/2017

BRWI0001-002 06/01/2016

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.84	20.95

BRWI0002-002 06/01/2016

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.04	19.70

BRWI0002-005 06/01/2016

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA,

CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 35.07	20.51

BRWI0003-002 06/01/2016

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0004-002 06/01/2016

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.59	21.49

BRWI0006-002 06/01/2016

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.04	19.75

BRWI0007-002 06/01/2016

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.53	20.95

BRWI0008-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.98	20.62

BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes

BRICKLAYER.....$ 32.22 20.57

BRWI0019-002 06/01/2016

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.98	20.81

BRWI0034-002 06/01/2015

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.86	17.22

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes

Carpenters
Carpenter.....$ 33.56 18.00
Millwright.....$ 35.08 18.35
Pile Driver.....$ 34.12 18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2016

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 34.57	18.16

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 05/30/2016

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 32.00	19.28

ELEC0014-007 05/30/2016

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 24.35	13.15

Low voltage construction, installation, maintenance and

removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2016

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 37.71	30%+10.02

ELEC0158-002 05/30/2016

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:	$ 30.50	29.50% + 9.57

ELEC0159-003 05/30/2016

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:	$ 36.50	20.39

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* ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63
Electrical contracts under $180,000	$ 30.18	18.42

ELEC0242-005 05/29/2016

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 34.92	25.05

ELEC0388-002 05/30/2016

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 30.69	26.00% +10.05

ELEC0430-002 06/01/2016

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 36.07	21.84

ELEC0494-005 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 36.01	24.00

ELEC0494-006 06/01/2014

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 29.64	20.54

ELEC0494-013 06/01/2015

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer:	$ 16.47	14.84
Technician:	$ 26.00	17.70

Installation, testing, maintenance, operation and servicing

of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 05/30/2016

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:	$ 30.68	17.28

ELEC0890-003 06/01/2016

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 32.45	26.10% + $10.56

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-005 06/01/2016

	Rates	Fringes
Power Equipment Operator		

Group 1	$ 39.27	21.80
Group 2	$ 38.77	21.80
Group 3	$ 38.27	21.80
Group 4	$ 38.01	21.80
Group 5	$ 37.72	21.80
Group 6	$ 31.82	21.80

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

IRON0008-002 06/01/2016

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 30.86	25.42

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.15	25.42

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2015

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.85	21.84

IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 36.29	30.77

IRON0512-008 05/01/2015

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 35.50	23.45

IRON0512-021 05/01/2015

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.04	23.45

LABO0113-002 06/01/2016

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.51	20.35
Group 2	$ 27.66	20.35
Group 3	$ 27.86	20.35
Group 4	$ 28.01	20.35
Group 5	$ 28.16	20.35
Group 6	$ 24.00	20.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2016

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.76	20.35
Group 2	$ 26.86	20.35
Group 3	$ 26.91	20.35
Group 4	$ 27.11	20.35
Group 5	$ 26.96	20.35
Group 6	$ 23.85	20.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2016

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.57	20.35
Group 2	$ 26.72	20.35
Group 3	$ 26.92	20.35
Group 4	$ 26.89	20.35
Group 5	$ 27.22	20.35
Group 6	$ 23.71	20.35

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer;

Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2016

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.67	16.55
Group 2	$ 30.77	16.55
Group 3	$ 30.82	16.55
Group 4	$ 31.02	16.55
Group 5	$ 30.87	16.55
Group 6	$ 27.30	16.55

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2016

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 30.95	16.41
Group 2	$ 31.05	16.41
Group 3	$ 31.10	16.41
Group 4	$ 31.30	16.41
Group 5	$ 31.15	16.41
Group 6	$ 27.30	16.41

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/02/2016

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 29.86	16.35
Spray, Sandblast, Steel	$ 30.46	16.35

Repaint:		
Brush, Roller	$ 28.36	16.35
Spray, Sandblast, Steel	$ 28.96	16.35

PAIN0108-002 06/01/2016

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 32.74	18.70
Spray & Sandblast	$ 33.74	18.70

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2016

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 30.42	22.19
Brush	$ 30.07	22.19
Spray & Sandblast	$ 30.82	22.19

PAIN0802-002 06/01/2016

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 27.50	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2016

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 24.39	11.72

PAIN0934-001 06/01/2016

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 32.74	18.70
Spray	$ 33.74	18.70
Structural Steel	$ 32.89	18.70

PAIN1011-002 06/01/2016

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.56	11.93

PLAS0599-010 06/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA

CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2016

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 26.63	19.85
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic	$ 26.78	19.85
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage

determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current

negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

March 2017

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0010	201.0105 Clearing	172.000 STA	_____.____	_____.____
0020	201.0205 Grubbing	172.000 STA	_____.____	_____.____
0030	203.0100 Removing Small Pipe Culverts	40.000 EACH	_____.____	_____.____
0040	203.0200 Removing Old Structure (station) 001. Sta. 779+13'SB'	LS	LUMP SUM	_____.____
0050	203.0200 Removing Old Structure (station) 002. Sta. 779+04	LS	LUMP SUM	_____.____
0060	203.0200 Removing Old Structure (station) 003. 736+66	LS	LUMP SUM	_____.____
0070	203.0200 Removing Old Structure (station) 004. 736+50	LS	LUMP SUM	_____.____
0080	203.0200 Removing Old Structure (station) 005. Sta. 806+87'SB'	LS	LUMP SUM	_____.____
0090	203.0200 Removing Old Structure (station) 006. Sta. 806+70	LS	LUMP SUM	_____.____
0100	203.0200 Removing Old Structure (station) 007. Sta. 849+78'SB'	LS	LUMP SUM	_____.____
0110	203.0200 Removing Old Structure (station) 008. Sta. 849+91	LS	LUMP SUM	_____.____
0120	203.0200 Removing Old Structure (station) 009. Sta. 862+09'SB'	LS	LUMP SUM	_____.____
0130	203.0200 Removing Old Structure (station) 010. Sta. 862+05	LS	LUMP SUM	_____.____
0140	203.0225.S Debris Containment (structure) 001. B-53-0061	LS	LUMP SUM	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0150	203.0225.S Debris Containment (structure) 002. B-53-0062	LS	LUMP SUM	_____.____
0160	203.0225.S Debris Containment (structure) 003. B-53-229	LS	LUMP SUM	_____.____
0170	203.0225.S Debris Containment (structure) 004. B-53-230	LS	LUMP SUM	_____.____
0180	203.0225.S Debris Containment (structure) 005. B-53-0029	LS	LUMP SUM	_____.____
0190	203.0225.S Debris Containment (structure) 006. B-53-0030	LS	LUMP SUM	_____.____
0200	203.0225.S Debris Containment (structure) 007. B-53-0214	LS	LUMP SUM	_____.____
0210	203.0225.S Debris Containment (structure) 008. B-53-0215	LS	LUMP SUM	_____.____
0220	203.0225.S Debris Containment (structure) 009. B-53-0059	LS	LUMP SUM	_____.____
0230	203.0225.S Debris Containment (structure) 010. B-53-0060	LS	LUMP SUM	_____.____
0240	203.0500.S Removing Old Structure Over Waterway (station) 001. Sta. 799+63'SB'	LS	LUMP SUM	_____.____
0250	203.0500.S Removing Old Structure Over Waterway (station) 002. Sta. 799+63	LS	LUMP SUM	_____.____
0260	204.0100 Removing Pavement	183,590.000 SY	_____.____	_____.____
0270	204.0110 Removing Asphaltic Surface	2,970.000 SY	_____.____	_____.____
0280	204.0115 Removing Asphaltic Surface Butt Joints	115.000 SY	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0290	204.0120 Removing Asphaltic Surface Milling	5,500.000 SY	_____.____	_____.____
0300	204.0150 Removing Curb & Gutter	1,750.000 LF	_____.____	_____.____
0310	204.0155 Removing Concrete Sidewalk	1,550.000 SY	_____.____	_____.____
0320	204.0157 Removing Concrete Barrier	850.000 LF	_____.____	_____.____
0330	204.0165 Removing Guardrail	7,710.000 LF	_____.____	_____.____
0340	204.0170 Removing Fence	43,530.000 LF	_____.____	_____.____
0350	204.0180 Removing Delineators and Markers	232.000 EACH	_____.____	_____.____
0360	204.0195 Removing Concrete Bases	5.000 EACH	_____.____	_____.____
0370	204.0210 Removing Manholes	5.000 EACH	_____.____	_____.____
0380	204.0220 Removing Inlets	72.000 EACH	_____.____	_____.____
0390	204.0245 Removing Storm Sewer (size) 001. 12-Inch	225.000 LF	_____.____	_____.____
0400	204.0245 Removing Storm Sewer (size) 002. 15-Inch	266.000 LF	_____.____	_____.____
0410	204.0245 Removing Storm Sewer (size) 003. 18-Inch	3,686.000 LF	_____.____	_____.____
0420	204.0245 Removing Storm Sewer (size) 004. 24-Inch	887.000 LF	_____.____	_____.____
0430	204.0245 Removing Storm Sewer (size) 005. 19x30-Inch	125.000 LF	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0440	204.0245 Removing Storm Sewer (size) 006. 30-Inch	313.000 LF	_____.____	_____.____
0450	204.0245 Removing Storm Sewer (size) 007. 33-Inch	41.000 LF	_____.____	_____.____
0460	204.0245 Removing Storm Sewer (size) 008. 36-Inch	482.000 LF	_____.____	_____.____
0470	204.0245 Removing Storm Sewer (size) 009. 48-Inch	184.000 LF	_____.____	_____.____
0480	204.0275 Closing Culvert Pipes	1.000 EACH	_____.____	_____.____
0490	204.0280 Sealing Pipes	2.000 EACH	_____.____	_____.____
0500	204.0291.S Abandoning Sewer	223.900 CY	_____.____	_____.____
0510	204.9060.S Removing (item description) 001. Crash Cushion	4.000 EACH	_____.____	_____.____
0520	204.9060.S Removing (item description) 005. Apron Endwalls	15.000 EACH	_____.____	_____.____
0530	204.9105.S Removing (item description) 001. Electrical Equipment	LS	LUMP SUM	_____.____
0540	204.9180.S Removing (item description) 001. Concrete Flumes	445.000 SY	_____.____	_____.____
0550	205.0100 Excavation Common	676,186.000 CY	_____.____	_____.____
0560	206.1000 Excavation for Structures Bridges (structure) 001. B-53-0330	LS	LUMP SUM	_____.____
0570	206.1000 Excavation for Structures Bridges (structure) 002. B-53-0331	LS	LUMP SUM	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0580	206.1000 Excavation for Structures Bridges (structure) 003. B-53-0332	LS	LUMP SUM	_____.____
0590	206.1000 Excavation for Structures Bridges (structure) 004. B-53-0333	LS	LUMP SUM	_____.____
0600	206.1000 Excavation for Structures Bridges (structure) 005. B-53-0334	LS	LUMP SUM	_____.____
0610	206.1000 Excavation for Structures Bridges (structure) 006. B-53-0335	LS	LUMP SUM	_____.____
0620	206.1000 Excavation for Structures Bridges (structure) 007. B-53-0214	LS	LUMP SUM	_____.____
0630	206.1000 Excavation for Structures Bridges (structure) 008. B-53-0215	LS	LUMP SUM	_____.____
0640	206.1000 Excavation for Structures Bridges (structure) 009. B-53-0336	LS	LUMP SUM	_____.____
0650	206.1000 Excavation for Structures Bridges (structure) 010. B-53-0337	LS	LUMP SUM	_____.____
0660	206.1000 Excavation for Structures Bridges (structure) 012. B-53-229	LS	LUMP SUM	_____.____
0670	206.1000 Excavation for Structures Bridges (structure) 013. B-53-230	LS	LUMP SUM	_____.____
0680	208.1100 Select Borrow	120,715.000 CY	_____.____	_____.____
0690	209.0300.S Backfill Coarse Aggregate (size) 001. No. 1	324.700 CY	_____.____	_____.____
0700	209.1500 Backfill Granular Grade 1	4,030.000 TON	_____.____	_____.____
0710	210.1500 Backfill Structure Type A	6,435.000 TON	_____.____	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0720	211.0100 Prepare Foundation for Asphaltic Paving (project) 001. 1005-10-76	LS	LUMP SUM	_____.____
0730	211.0200 Prepare Foundation for Concrete Pavement (project) 001. Project 1003-10-84	LS	LUMP SUM	_____.____
0740	213.0100 Finishing Roadway (project) 001. 1003-10-84	1.000 EACH	_____.____	_____.____
0750	213.0100 Finishing Roadway (project) 002. 1005-10-76	1.000 EACH	_____.____	_____.____
0760	213.0100 Finishing Roadway (project) 003. 1005-11-71	1.000 EACH	_____.____	_____.____
0770	305.0110 Base Aggregate Dense 3/4-Inch	10,860.000 TON	_____.____	_____.____
0780	305.0120 Base Aggregate Dense 1 1/4-Inch	229,263.000 TON	_____.____	_____.____
0790	305.0130 Base Aggregate Dense 3-Inch	4,000.000 TON	_____.____	_____.____
0800	310.0110 Base Aggregate Open-Graded	775.000 TON	_____.____	_____.____
0810	312.0110 Select Crushed Material	404,698.000 TON	_____.____	_____.____
0820	415.0085 Concrete Pavement 8 1/2-Inch **P**	6,360.000 SY	_____.____	_____.____
0830	415.0090 Concrete Pavement 9-Inch **P**	8,140.000 SY	_____.____	_____.____
0840	415.0130 Concrete Pavement 13-Inch **P**	396,215.000 SY	_____.____	_____.____
0850	415.0210 Concrete Pavement Gaps	11.000 EACH	_____.____	_____.____
0860	415.0410 Concrete Pavement Approach Slab **P**	2,728.000 SY	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0870	415.6000.S Rout and Seal	9,100.000 LF	_____.____	_____.____
0880	416.0160 Concrete Driveway 6-Inch **P**	36.000 SY	_____.____	_____.____
0890	416.0610 Drilled Tie Bars	775.000 EACH	_____.____	_____.____
0900	416.0620 Drilled Dowel Bars	156.000 EACH	_____.____	_____.____
0910	416.1010 Concrete Surface Drains **P**	40.000 CY	_____.____	_____.____
0920	416.1110 Concrete Shoulder Rumble Strips **P**	69,130.000 LF	_____.____	_____.____
0930	440.4410 Incentive IRI Ride	75,756.000 DOL	1.00000	75,756.00
0940	450.4000 HMA Cold Weather Paving	4,098.000 TON	_____.____	_____.____
0950	455.0605 Tack Coat	2,246.000 GAL	_____.____	_____.____
0960	460.2000 Incentive Density HMA Pavement	9,386.000 DOL	1.00000	9,386.00
0970	460.5223 HMA Pavement 3 LT 58-28 S	1,670.000 TON	_____.____	_____.____
0980	460.5224 HMA Pavement 4 LT 58-28 S	2,200.000 TON	_____.____	_____.____
0990	460.6223 HMA Pavement 3 MT 58-28 S	1,210.000 TON	_____.____	_____.____
1000	460.6224 HMA Pavement 4 MT 58-28 S	3,574.000 TON	_____.____	_____.____
1010	460.7223 HMA Pavement 3 HT 58-28 S	1,800.000 TON	_____.____	_____.____
1020	460.7224 HMA Pavement 4 HT 58-28 S	190.000 TON	_____.____	_____.____
1030	460.7424 HMA Pavement 4 HT 58-28 H	1,180.000 TON	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1040	465.0105 Asphaltic Surface	5.200 TON	_____.____	_____.____
1050	465.0125 Asphaltic Surface Temporary	260.000 TON	_____.____	_____.____
1060	465.0310 Asphaltic Curb	310.000 LF	_____.____	_____.____
1070	465.0315 Asphaltic Flumes	46.000 SY	_____.____	_____.____
1080	465.0400 Asphaltic Shoulder Rumble Strips	390.000 LF	_____.____	_____.____
1090	501.1000.S Ice Hot Weather Concreting	70,420.000 LB	_____.____	_____.____
1100	502.0100 Concrete Masonry Bridges **P**	2,793.000 CY	_____.____	_____.____
1110	502.3100 Expansion Device (structure) 001. B-53-0214	LS	LUMP SUM	_____.____
1120	502.3100 Expansion Device (structure) 002. B-53-0215	LS	LUMP SUM	_____.____
1130	502.3200 Protective Surface Treatment **P**	17,190.000 SY	_____.____	_____.____
1140	502.3210 Pigmented Surface Sealer **P**	1,990.000 SY	_____.____	_____.____
1150	502.4106 Adhesive Anchors 3/4-inch **P**	21.000 EACH	_____.____	_____.____
1160	502.4204 Adhesive Anchors No. 4 Bar	578.000 EACH	_____.____	_____.____
1170	502.4205 Adhesive Anchors No. 5 Bar	78.000 EACH	_____.____	_____.____
1180	502.4206 Adhesive Anchors No. 6 Bar	174.000 EACH	_____.____	_____.____
1190	502.4207 Adhesive Anchors No. 7 Bar	44.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1200	502.4208 Adhesive Anchors No. 8 Bar	8.000 EACH	_____.____	_____.____
1210	502.4210 Adhesive Anchors No. 10 Bar	72.000 EACH	_____.____	_____.____
1220	503.0136 Prestressed Girder Type I 36-Inch **P**	1,927.000 LF	_____.____	_____.____
1230	503.0137 Prestressed Girder Type I 36W-Inch **P**	4,002.000 LF	_____.____	_____.____
1240	503.0146 Prestressed Girder Type I 45W-Inch **P**	2,464.000 LF	_____.____	_____.____
1250	504.0900 Concrete Masonry Endwalls **P**	10.000 CY	_____.____	_____.____
1260	505.0400 Bar Steel Reinforcement HS Structures **P**	108,700.000 LB	_____.____	_____.____
1270	505.0600 Bar Steel Reinforcement HS Coated Structures **P**	1,482,140.000 LB	_____.____	_____.____
1280	505.0800.S Bar Steel Reinforcement HS Stainless Structures **P**	34,270.000 LB	_____.____	_____.____
1290	505.0904 Bar Couplers No. 4 **P**	8.000 EACH	_____.____	_____.____
1300	505.0905 Bar Couplers No. 5 **P**	8.000 EACH	_____.____	_____.____
1310	505.0908 Bar Couplers No. 8 **P**	14.000 EACH	_____.____	_____.____
1320	505.0909 Bar Couplers No. 9 **P**	206.000 EACH	_____.____	_____.____
1330	506.0605 Structural Steel HS **P**	114,840.000 LB	_____.____	_____.____
1340	506.2605 Bearing Pads Elastomeric Non-Laminated **P**	234.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1350	506.3005 Welded Stud Shear Connectors 7/8x4-Inch **P**	5,370.000 EACH	_____.____	_____.____
1360	506.4000 Steel Diaphragms (structure) 001. B-53-0330 **P**	10.000 EACH	_____.____	_____.____
1370	506.4000 Steel Diaphragms (structure) 002. B-53-0331 **P**	10.000 EACH	_____.____	_____.____
1380	506.4000 Steel Diaphragms (structure) 003. B-53-0332 **P**	22.000 EACH	_____.____	_____.____
1390	506.4000 Steel Diaphragms (structure) 004. B-53-0333 **P**	22.000 EACH	_____.____	_____.____
1400	506.4000 Steel Diaphragms (structure) 005. B-53-0334 **P**	8.000 EACH	_____.____	_____.____
1410	506.4000 Steel Diaphragms (structure) 006. B-53-0335 **P**	8.000 EACH	_____.____	_____.____
1420	506.4000 Steel Diaphragms (structure) 007. B-53-0336 **P**	8.000 EACH	_____.____	_____.____
1430	506.4000 Steel Diaphragms (structure) 008. B-53-0337 **P**	8.000 EACH	_____.____	_____.____
1440	506.4000 Steel Diaphragms (structure) 009. B-53-229 **P**	15.000 EACH	_____.____	_____.____
1450	506.4000 Steel Diaphragms (structure) 010. B-53-230 **P**	20.000 EACH	_____.____	_____.____
1460	506.5000 Bearing Assemblies Fixed (structure) 001. B-53-0214 **P**	20.000 EACH	_____.____	_____.____
1470	506.5000 Bearing Assemblies Fixed (structure) 002. B-53-0215 **P**	22.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1480	506.6000 Bearing Assemblies Expansion (structure) 001. B-53-0214 **P**	20.000 EACH	_____.____	_____.____
1490	506.6000 Bearing Assemblies Expansion (structure) 002. B-53-0215 **P**	22.000 EACH	_____.____	_____.____
1500	509.1500 Concrete Surface Repair	40.000 SF	_____.____	_____.____
1510	511.1100 Temporary Shoring	5,320.000 SF	_____.____	_____.____
1520	511.1200 Temporary Shoring (structure) 001. B-53-0331	980.000 SF	_____.____	_____.____
1530	511.1200 Temporary Shoring (structure) 002. B-53-0332	218.000 SF	_____.____	_____.____
1540	511.1200 Temporary Shoring (structure) 003. B-53-0333	245.000 SF	_____.____	_____.____
1550	511.1200 Temporary Shoring (structure) 004. B-53-0335	820.000 SF	_____.____	_____.____
1560	511.1200 Temporary Shoring (structure) 005. B-53-0215	880.000 SF	_____.____	_____.____
1570	511.1200 Temporary Shoring (structure) 006. B-53-0337	760.000 SF	_____.____	_____.____
1580	511.1200 Temporary Shoring (structure) 007. B-53-229	850.000 SF	_____.____	_____.____
1590	511.1200 Temporary Shoring (structure) 008. B-53-230	1,735.000 SF	_____.____	_____.____
1600	514.0450 Floor Drains Type WF	8.000 EACH	_____.____	_____.____
1610	514.2608 Downspout 8-Inch	300.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1620	516.0500 Rubberized Membrane Waterproofing **P**	485.000 SY	_____.____	_____.____
1630	517.0600 Painting Epoxy System (structure) 001. B-53-0214	LS	LUMP SUM	_____.____
1640	517.0600 Painting Epoxy System (structure) 002. B-53-0215	LS	LUMP SUM	_____.____
1650	517.0900.S Preparation and Coating of Top Flanges (structure) 001. B-53-0214	LS	LUMP SUM	_____.____
1660	517.0900.S Preparation and Coating of Top Flanges (structure) 002. B-53-0215	LS	LUMP SUM	_____.____
1670	517.1010.S Concrete Staining (structure) 001. B-53-0330 **P**	3,343.000 SF	_____.____	_____.____
1680	517.1010.S Concrete Staining (structure) 002. B-53-0331 **P**	3,960.000 SF	_____.____	_____.____
1690	517.1010.S Concrete Staining (structure) 003. B-53-0332 **P**	4,318.000 SF	_____.____	_____.____
1700	517.1010.S Concrete Staining (structure) 004. B-53-0333 **P**	4,526.000 SF	_____.____	_____.____
1710	517.1010.S Concrete Staining (structure) 005. B-53-0334 **P**	3,422.000 SF	_____.____	_____.____
1720	517.1010.S Concrete Staining (structure) 006. B-53-0335 **P**	3,221.000 SF	_____.____	_____.____
1730	517.1010.S Concrete Staining (structure) 007. B-53-0336 **P**	3,482.000 SF	_____.____	_____.____
1740	517.1010.S Concrete Staining (structure) 008. B-53-0337 **P**	3,162.000 SF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1750	517.1010.S Concrete Staining (structure) 009. R-53-0035 **P**	3,520.000 SF	_____.____	_____.____
1760	517.1010.S Concrete Staining (structure) 010. R-53-0036 **P**	3,270.000 SF	_____.____	_____.____
1770	517.1010.S Concrete Staining (structure) 011. R-53-0038 **P**	3,250.000 SF	_____.____	_____.____
1780	517.1010.S Concrete Staining (structure) 012. R-53-0039 **P**	3,550.000 SF	_____.____	_____.____
1790	517.1010.S Concrete Staining (structure) 013. R-53-0040 **P**	3,240.000 SF	_____.____	_____.____
1800	517.1010.S Concrete Staining (structure) 014. R-53-0041 **P**	3,020.000 SF	_____.____	_____.____
1810	517.1010.S Concrete Staining (structure) 015. S-53-0076 **P**	1,100.000 SF	_____.____	_____.____
1820	517.1010.S Concrete Staining (structure) 016. S-53-0077 **P**	1,250.000 SF	_____.____	_____.____
1830	517.1050.S Architectural Surface Treatment (structure) 001. B-53-0330 **P**	956.000 SF	_____.____	_____.____
1840	517.1050.S Architectural Surface Treatment (structure) 002. B-53-0331 **P**	1,583.000 SF	_____.____	_____.____
1850	517.1050.S Architectural Surface Treatment (structure) 003. B-53-0332 **P**	1,509.000 SF	_____.____	_____.____
1860	517.1050.S Architectural Surface Treatment (structure) 004. B-53-0333 **P**	1,699.000 SF	_____.____	_____.____
1870	517.1050.S Architectural Surface Treatment (structure) 005. B-53-0334 **P**	1,102.000 SF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1880	517.1050.S Architectural Surface Treatment (structure) 006. B-53-0335 **P**	882.000 SF	_____.____	_____.____
1890	517.1050.S Architectural Surface Treatment (structure) 007. B-53-0336 **P**	1,139.000 SF	_____.____	_____.____
1900	517.1050.S Architectural Surface Treatment (structure) 008. B-53-0337 **P**	860.000 SF	_____.____	_____.____
1910	517.1050.S Architectural Surface Treatment (structure) 009. R-53-0035 **P**	2,510.000 SF	_____.____	_____.____
1920	517.1050.S Architectural Surface Treatment (structure) 010. R-53-0036 **P**	2,260.000 SF	_____.____	_____.____
1930	517.1050.S Architectural Surface Treatment (structure) 011. R-53-0038 **P**	2,290.000 SF	_____.____	_____.____
1940	517.1050.S Architectural Surface Treatment (structure) 012. R-53-0039 **P**	2,560.000 SF	_____.____	_____.____
1950	517.1050.S Architectural Surface Treatment (structure) 013. R-53-0040 **P**	2,280.000 SF	_____.____	_____.____
1960	517.1050.S Architectural Surface Treatment (structure) 014. R-53-0041 **P**	2,080.000 SF	_____.____	_____.____
1970	520.1012 Apron Endwalls for Culvert Pipe 12-Inch	5.000 EACH	_____.____	_____.____
1980	520.1018 Apron Endwalls for Culvert Pipe 18-Inch	10.000 EACH	_____.____	_____.____
1990	520.1024 Apron Endwalls for Culvert Pipe 24-Inch	7.000 EACH	_____.____	_____.____
2000	520.2018 Culvert Pipe Temporary 18-Inch	84.000 LF	_____.____	_____.____
2010	520.2024 Culvert Pipe Temporary 24-Inch	403.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2020	520.4112 Culvert Pipe Class IV 12-Inch	101.000 LF	_____.____	_____.____
2030	520.4118 Culvert Pipe Class IV 18-Inch	294.000 LF	_____.____	_____.____
2040	520.4124 Culvert Pipe Class IV 24-Inch	5.000 LF	_____.____	_____.____
2050	520.8000 Concrete Collars for Pipe	28.000 EACH	_____.____	_____.____
2060	520.8700 Cleaning Culvert Pipes	18.000 EACH	_____.____	_____.____
2070	521.0118 Culvert Pipe Corrugated Steel 18-Inch	75.000 LF	_____.____	_____.____
2080	521.0436 Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 36-Inch 6 to 1	2.000 EACH	_____.____	_____.____
2090	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	2.000 EACH	_____.____	_____.____
2100	521.1624 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 10 to 1	12.000 EACH	_____.____	_____.____
2110	521.2005.S Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 12-Inch	710.000 LF	_____.____	_____.____
2120	521.2005.S Surface Drain Pipe Corrugated Metal Slotted (inch) 002. 18-Inch	317.000 LF	_____.____	_____.____
2130	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	41.000 LF	_____.____	_____.____
2140	522.0536 Culvert Pipe Reinforced Concrete Class V 36-Inch	380.000 LF	_____.____	_____.____
2150	522.0548 Culvert Pipe Reinforced Concrete Class V 48-Inch	300.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2160	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	27.000 EACH	_____.____	_____.____
2170	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	30.000 EACH	_____.____	_____.____
2180	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	40.000 EACH	_____.____	_____.____
2190	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	7.000 EACH	_____.____	_____.____
2200	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	6.000 EACH	_____.____	_____.____
2210	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	6.000 EACH	_____.____	_____.____
2220	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	3.000 EACH	_____.____	_____.____
2230	523.0419 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	252.000 LF	_____.____	_____.____
2240	524.0612 Apron Endwalls for Culvert Pipe Salvaged 12-Inch	1.000 EACH	_____.____	_____.____
2250	524.0618 Apron Endwalls for Culvert Pipe Salvaged 18-Inch	3.000 EACH	_____.____	_____.____
2260	524.0624 Apron Endwalls for Culvert Pipe Salvaged 24-Inch	4.000 EACH	_____.____	_____.____
2270	524.0630 Apron Endwalls for Culvert Pipe Salvaged 30-Inch	1.000 EACH	_____.____	_____.____
2280	524.0636 Apron Endwalls for Culvert Pipe Salvaged 36-Inch	2.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2290	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 001. N-53-0010	26,370.000 SF	_____.____	_____.____
2300	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 002. N-53-0011	12,060.000 SF	_____.____	_____.____
2310	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 003. N-53-0012	6,830.000 SF	_____.____	_____.____
2320	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 004. N-53-0013	24,460.000 SF	_____.____	_____.____
2330	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 005. N-53-0014	50,020.000 SF	_____.____	_____.____
2340	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 006. N-53-0015	22,990.000 SF	_____.____	_____.____
2350	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 007. N-53-0016	13,250.000 SF	_____.____	_____.____
2360	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 008. N-53-0017	27,790.000 SF	_____.____	_____.____
2370	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 009. N-53-0018	26,990.000 SF	_____.____	_____.____
2380	550.0010 Pre-Boring Unconsolidated Materials	485.000 LF	_____.____	_____.____
2390	550.2124 Piling CIP Concrete 12 3/4 X 0.25-Inch	14,700.000 LF	_____.____	_____.____
2400	550.2126 Piling CIP Concrete 12 3/4 X 0.375-Inch	6,570.000 LF	_____.____	_____.____
2410	550.2128 Piling CIP Concrete 12 3/4 X 0.50-Inch	6,160.000 LF	_____.____	_____.____
2420	601.0409 Concrete Curb & Gutter 30-Inch Type A **P**	172.000 LF	_____.____	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2430	601.0419 Concrete Curb & Gutter 30-Inch Type L **P**	4,260.000 LF	_____.____	_____.____
2440	601.0555 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A **P**	400.000 LF	_____.____	_____.____
2450	601.0600 Concrete Curb Pedestrian **P**	170.000 LF	_____.____	_____.____
2460	602.0410 Concrete Sidewalk 5-Inch **P**	20,200.000 SF	_____.____	_____.____
2470	602.0515 Curb Ramp Detectable Warning Field Natural Patina **P**	62.000 SF	_____.____	_____.____
2480	603.1142 Concrete Barrier Type S42 **P**	53,567.000 LF	_____.____	_____.____
2490	603.1442 Concrete Barrier Type S42C **P**	1,600.000 LF	_____.____	_____.____
2500	603.8000 Concrete Barrier Temporary Precast Delivered	123,695.000 LF	_____.____	_____.____
2510	603.8125 Concrete Barrier Temporary Precast Installed	172,420.000 LF	_____.____	_____.____
2520	604.0400 Slope Paving Concrete	906.000 SY	_____.____	_____.____
2530	604.0500 Slope Paving Crushed Aggregate **P**	776.000 SY	_____.____	_____.____
2540	604.9015.S Reseal Crushed Aggregate Slope Paving	862.000 SY	_____.____	_____.____
2550	606.0100 Riprap Light	85.000 CY	_____.____	_____.____
2560	606.0200 Riprap Medium	1,104.000 CY	_____.____	_____.____
2570	606.0300 Riprap Heavy	1,474.000 CY	_____.____	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2580	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	1,203.000 LF	_____.____	_____.____
2590	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	3,472.000 LF	_____.____	_____.____
2600	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	1,542.000 LF	_____.____	_____.____
2610	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	882.000 LF	_____.____	_____.____
2620	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	366.000 LF	_____.____	_____.____
2630	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	313.000 LF	_____.____	_____.____
2640	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	242.000 LF	_____.____	_____.____
2650	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	325.000 LF	_____.____	_____.____
2660	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	155.000 LF	_____.____	_____.____
2670	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	3,390.000 LF	_____.____	_____.____
2680	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	272.000 LF	_____.____	_____.____
2690	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	11.000 LF	_____.____	_____.____
2700	608.0436 Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	112.000 LF	_____.____	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2710	608.0512 Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	493.000 LF	_____.____	_____.____
2720	608.0515 Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	1,313.000 LF	_____.____	_____.____
2730	608.0518 Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	212.000 LF	_____.____	_____.____
2740	608.0524 Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	184.000 LF	_____.____	_____.____
2750	608.0530 Storm Sewer Pipe Reinforced Concrete Class V 30-Inch	87.000 LF	_____.____	_____.____
2760	608.0536 Storm Sewer Pipe Reinforced Concrete Class V 36-Inch	451.000 LF	_____.____	_____.____
2770	608.0542 Storm Sewer Pipe Reinforced Concrete Class V 42-Inch	217.000 LF	_____.____	_____.____
2780	608.0548 Storm Sewer Pipe Reinforced Concrete Class V 48-Inch	124.000 LF	_____.____	_____.____
2790	609.0112 Relaid Storm Sewer 12-Inch	101.000 LF	_____.____	_____.____
2800	611.0420 Reconstructing Manholes	1.000 EACH	_____.____	_____.____
2810	611.0430 Reconstructing Inlets	1.000 EACH	_____.____	_____.____
2820	611.0530 Manhole Covers Type J	15.000 EACH	_____.____	_____.____
2830	611.0606 Inlet Covers Type B	10.000 EACH	_____.____	_____.____
2840	611.0610 Inlet Covers Type BW	229.000 EACH	_____.____	_____.____
2850	611.0624 Inlet Covers Type H	11.000 EACH	_____.____	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2860	611.0627 Inlet Covers Type HM	2.000 EACH	_____.____	_____.____
2870	611.0639 Inlet Covers Type H-S	6.000 EACH	_____.____	_____.____
2880	611.0642 Inlet Covers Type MS	75.000 EACH	_____.____	_____.____
2890	611.0651 Inlet Covers Type S	1.000 EACH	_____.____	_____.____
2900	611.0654 Inlet Covers Type V	2.000 EACH	_____.____	_____.____
2910	611.1004 Catch Basins 4-FT Diameter	1.000 EACH	_____.____	_____.____
2920	611.1006 Catch Basins 6-FT Diameter	3.000 EACH	_____.____	_____.____
2930	611.2003 Manholes 3-FT Diameter	1.000 EACH	_____.____	_____.____
2940	611.2004 Manholes 4-FT Diameter	2.000 EACH	_____.____	_____.____
2950	611.2005 Manholes 5-FT Diameter	2.000 EACH	_____.____	_____.____
2960	611.2006 Manholes 6-FT Diameter	8.000 EACH	_____.____	_____.____
2970	611.2044 Manholes 4x4-FT	8.000 EACH	_____.____	_____.____
2980	611.2066 Manholes 6x6-FT	1.000 EACH	_____.____	_____.____
2990	611.3003 Inlets 3-FT Diameter	3.000 EACH	_____.____	_____.____
3000	611.3004 Inlets 4-FT Diameter	40.000 EACH	_____.____	_____.____
3010	611.3220 Inlets 2x2-FT	2.000 EACH	_____.____	_____.____
3020	611.3225 Inlets 2x2.5-FT	191.000 EACH	_____.____	_____.____

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Federal ID(s): WISC 2017326, WISC 2017327, N/A

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3030	611.3230 Inlets 2x3-FT	17.000 EACH	_____.____	_____.____
3040	611.3901 Inlets Median 1 Grate	41.000 EACH	_____.____	_____.____
3050	611.3902 Inlets Median 2 Grate	17.000 EACH	_____.____	_____.____
3060	611.8110 Adjusting Manhole Covers	1.000 EACH	_____.____	_____.____
3070	611.8115 Adjusting Inlet Covers	8.000 EACH	_____.____	_____.____
3080	611.8120.S Cover Plates Temporary	48.000 EACH	_____.____	_____.____
3090	611.9800.S Pipe Grates 001. 36-Inch	2.000 EACH	_____.____	_____.____
3100	611.9800.S Pipe Grates 002. 48-Inch	3.000 EACH	_____.____	_____.____
3110	612.0106 Pipe Underdrain 6-Inch	24,647.000 LF	_____.____	_____.____
3120	612.0218 Pipe Underdrain Unperforated 18-Inch	95.000 LF	_____.____	_____.____
3130	612.0406 Pipe Underdrain Wrapped 6-Inch	3,775.000 LF	_____.____	_____.____
3140	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	3.000 EACH	_____.____	_____.____
3150	612.0902.S Insulation Board Polystyrene (inch) 001. 2-Inch	20.000 SY	_____.____	_____.____
3160	614.0150 Anchor Assemblies for Steel Plate Beam Guard **P**	8.000 EACH	_____.____	_____.____
3170	614.0230 Steel Thrie Beam	600.000 LF	_____.____	_____.____
3180	614.0800 Crash Cushions Permanent	4.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3190	614.0905 Crash Cushions Temporary	26.000 EACH	_____.____	_____.____
3200	614.2300 MGS Guardrail 3	4,492.000 LF	_____.____	_____.____
3210	614.2310 MGS Guardrail 3 HS	187.500 LF	_____.____	_____.____
3220	614.2500 MGS Thrie Beam Transition	354.400 LF	_____.____	_____.____
3230	614.2610 MGS Guardrail Terminal EAT	15.000 EACH	_____.____	_____.____
3240	614.2620 MGS Guardrail Terminal Type 2	4.000 EACH	_____.____	_____.____
3250	616.0100 Fence Woven Wire (height) 001. 4-FT **P**	18,900.000 LF	_____.____	_____.____
3260	616.0206 Fence Chain Link 6-FT **P**	17,950.000 LF	_____.____	_____.____
3270	616.0700.S Fence Safety	18,000.000 LF	_____.____	_____.____
3280	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1003-10-84	1.000 EACH	_____.____	_____.____
3290	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1005-10-76	1.000 EACH	_____.____	_____.____
3300	618.0100 Maintenance And Repair of Haul Roads (project) 003. 1005-11-71	1.000 EACH	_____.____	_____.____
3310	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
3320	624.0100 Water	14,340.400 MGAL	_____.____	_____.____
3330	625.0500 Salvaged Topsoil	417,400.000 SY	_____.____	_____.____
3340	627.0200 Mulching	343,660.000 SY	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3350	628.1504 Silt Fence	15,365.000 LF	_____.____	_____.____
3360	628.1520 Silt Fence Maintenance	9,765.000 LF	_____.____	_____.____
3370	628.1905 Mobilizations Erosion Control	110.000 EACH	_____.____	_____.____
3380	628.1910 Mobilizations Emergency Erosion Control	98.000 EACH	_____.____	_____.____
3390	628.2004 Erosion Mat Class I Type B	191,155.000 SY	_____.____	_____.____
3400	628.2006 Erosion Mat Urban Class I Type A	8,400.000 SY	_____.____	_____.____
3410	628.2023 Erosion Mat Class II Type B	2,060.000 SY	_____.____	_____.____
3420	628.2039 Erosion Mat Class III Type D	2,345.000 SY	_____.____	_____.____
3430	628.6505 Soil Stabilizer Type A	1.000 ACRE	_____.____	_____.____
3440	628.6510 Soil Stabilizer Type B	23.010 ACRE	_____.____	_____.____
3450	628.7005 Inlet Protection Type A	251.000 EACH	_____.____	_____.____
3460	628.7010 Inlet Protection Type B	234.000 EACH	_____.____	_____.____
3470	628.7015 Inlet Protection Type C	16.000 EACH	_____.____	_____.____
3480	628.7020 Inlet Protection Type D	56.000 EACH	_____.____	_____.____
3490	628.7504 Temporary Ditch Checks	1,302.000 LF	_____.____	_____.____
3500	628.7555 Culvert Pipe Checks	215.000 EACH	_____.____	_____.____
3510	628.7560 Tracking Pads	72.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3520	629.0205 Fertilizer Type A	362.000 CWT	_____.____	_____.____
3530	630.0120 Seeding Mixture No. 20	5,130.000 LB	_____.____	_____.____
3540	630.0130 Seeding Mixture No. 30	4,794.000 LB	_____.____	_____.____
3550	630.0200 Seeding Temporary	890.000 LB	_____.____	_____.____
3560	630.0300 Seeding Borrow Pit	220.000 LB	_____.____	_____.____
3570	633.0100 Delineator Posts Steel	169.000 EACH	_____.____	_____.____
3580	633.0500 Delineator Reflectors	258.000 EACH	_____.____	_____.____
3590	633.1000 Delineator Brackets	251.000 EACH	_____.____	_____.____
3600	633.5200 Markers Culvert End	139.000 EACH	_____.____	_____.____
3610	634.0614 Posts Wood 4x6-Inch X 14-FT	18.000 EACH	_____.____	_____.____
3620	634.0616 Posts Wood 4x6-Inch X 16-FT	49.000 EACH	_____.____	_____.____
3630	634.0618 Posts Wood 4x6-Inch X 18-FT	22.000 EACH	_____.____	_____.____
3640	634.0620 Posts Wood 4x6-Inch X 20-FT	14.000 EACH	_____.____	_____.____
3650	634.0622 Posts Wood 4x6-Inch X 22-FT	4.000 EACH	_____.____	_____.____
3660	634.0808 Posts Tubular Steel 2x2-Inch X 8-FT	4.000 EACH	_____.____	_____.____
3670	635.0200 Sign Supports Structural Steel HS	14,028.000 LB	_____.____	_____.____
3680	636.0100 Sign Supports Concrete Masonry **P**	225.400 CY	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3690	636.0500 Sign Supports Steel Reinforcement	1,412.000 LB	_____.____	_____.____
3700	636.1000 Sign Supports Steel Reinforcement HS **P**	10,800.000 LB	_____.____	_____.____
3710	636.1500 Sign Supports Steel Coated Reinforcement HS **P**	24,960.000 LB	_____.____	_____.____
3720	637.1220 Signs Type I Reflective SH	3,805.500 SF	_____.____	_____.____
3730	637.2210 Signs Type II Reflective H	1,066.940 SF	_____.____	_____.____
3740	637.2230 Signs Type II Reflective F	48.000 SF	_____.____	_____.____
3750	638.2102 Moving Signs Type II	72.000 EACH	_____.____	_____.____
3760	638.2601 Removing Signs Type I	17.000 EACH	_____.____	_____.____
3770	638.2602 Removing Signs Type II	100.000 EACH	_____.____	_____.____
3780	638.3000 Removing Small Sign Supports	112.000 EACH	_____.____	_____.____
3790	638.3100 Removing Structural Steel Sign Supports	33.000 EACH	_____.____	_____.____
3800	638.4000 Moving Small Sign Supports	53.000 EACH	_____.____	_____.____
3810	641.1200 Sign Bridge Cantilevered (structure) 001. S-53-105	LS	LUMP SUM	_____.____
3820	641.1200 Sign Bridge Cantilevered (structure) 002. S-53-106	LS	LUMP SUM	_____.____
3830	641.1200 Sign Bridge Cantilevered (structure) 003. S-53-107	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3840	641.1200 Sign Bridge Cantilevered (structure) 004. S-53-108	LS	LUMP SUM	_____.____
3850	641.6600 Sign Bridge (structure) 001. S-53-0076	LS	LUMP SUM	_____.____
3860	641.6600 Sign Bridge (structure) 002. S-53-0077	LS	LUMP SUM	_____.____
3870	642.5401 Field Office Type D	1.000 EACH	_____.____	_____.____
3880	643.0200.S Traffic Control Surveillance and Maintenance (project) 001. 1003-10-84	1,000.000 DAY	_____.____	_____.____
3890	643.0200.S Traffic Control Surveillance and Maintenance (project) 002. 1005-10-76	989.000 DAY	_____.____	_____.____
3900	643.0200.S Traffic Control Surveillance and Maintenance (project) 003. 1005-11-71	45.000 DAY	_____.____	_____.____
3910	643.0300 Traffic Control Drums	183,121.000 DAY	_____.____	_____.____
3920	643.0420 Traffic Control Barricades Type III	9,005.000 DAY	_____.____	_____.____
3930	643.0705 Traffic Control Warning Lights Type A	14,605.000 DAY	_____.____	_____.____
3940	643.0715 Traffic Control Warning Lights Type C	29,599.000 DAY	_____.____	_____.____
3950	643.0800 Traffic Control Arrow Boards	432.000 DAY	_____.____	_____.____
3960	643.0900 Traffic Control Signs	52,648.000 DAY	_____.____	_____.____
3970	643.0910 Traffic Control Covering Signs Type I	5.000 EACH	_____.____	_____.____
3980	643.0920 Traffic Control Covering Signs Type II	5.000 EACH	_____.____	_____.____
3990	643.1000 Traffic Control Signs Fixed Message	1,992.580 SF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4000	643.1050 Traffic Control Signs PCMS	4,244.000 DAY	_____.____	_____.____
4010	643.3000 Traffic Control Detour Signs	4,000.000 DAY	_____.____	_____.____
4020	644.1410.S Temporary Pedestrian Surface Asphalt	9,940.000 SF	_____.____	_____.____
4030	644.1420.S Temporary Pedestrian Surface Plywood	2,120.000 SF	_____.____	_____.____
4040	644.1601.S Temporary Curb Ramp	3.000 EACH	_____.____	_____.____
4050	644.1616.S Temporary Pedestrian Safety Fence	1,690.000 LF	_____.____	_____.____
4060	645.0111 Geotextile Type DF Schedule A	6,083.000 SY	_____.____	_____.____
4070	645.0120 Geotextile Type HR	6,400.000 SY	_____.____	_____.____
4080	645.0130 Geotextile Type R	1,070.000 SY	_____.____	_____.____
4090	645.0140 Geotextile Type SAS	25,500.000 SY	_____.____	_____.____
4100	645.0220 Geogrid Type SR	17,120.000 SY	_____.____	_____.____
4110	646.0106 Pavement Marking Epoxy 4-Inch	173,960.000 LF	_____.____	_____.____
4120	646.0107.S Pavement Marking Grooved Epoxy 4-Inch	26,130.000 LF	_____.____	_____.____
4130	646.0126 Pavement Marking Epoxy 8-Inch	12,590.000 LF	_____.____	_____.____
4140	646.0690.S Removing Pavement Markings Water Blasting	301,550.000 LF	_____.____	_____.____
4150	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	13,560.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4160	646.0842.S Pavement Marking Grooved Contrast Wet Reflective Epoxy 4-Inch	5,950.000 LF	_____.____	_____.____
4170	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	5,310.000 LF	_____.____	_____.____
4180	646.0900.S Pavement Marking Late Season	47,400.000 LF	_____.____	_____.____
4190	647.0256 Pavement Marking Symbols Epoxy	4.000 EACH	_____.____	_____.____
4200	647.0456 Pavement Marking Curb Epoxy	480.000 LF	_____.____	_____.____
4210	647.0566 Pavement Marking Stop Line Epoxy 18-Inch	20.000 LF	_____.____	_____.____
4220	647.0656 Pavement Marking Parking Stall Epoxy	2,015.000 LF	_____.____	_____.____
4230	647.0706 Pavement Marking Diagonal Epoxy 6-Inch	270.000 LF	_____.____	_____.____
4240	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	50,536.000 LF	_____.____	_____.____
4250	649.0402 Temporary Pavement Marking Paint 4-Inch	12,500.000 LF	_____.____	_____.____
4260	649.0403 Temporary Pavement Marking Epoxy 4-Inch	239,549.000 LF	_____.____	_____.____
4270	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	5,313.000 LF	_____.____	_____.____
4280	649.0803 Temporary Pavement Marking Epoxy 8-Inch	16,318.000 LF	_____.____	_____.____
4290	652.0110 Conduit Rigid Metallic 1-Inch **P**	36.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4300	652.0125 Conduit Rigid Metallic 2-Inch **P**	752.000 LF	_____.____	_____.____
4310	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch **P**	30.000 LF	_____.____	_____.____
4320	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch **P**	10,381.000 LF	_____.____	_____.____
4330	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch **P**	3,020.000 LF	_____.____	_____.____
4340	652.0605 Conduit Special 2-Inch **P**	825.000 LF	_____.____	_____.____
4350	652.0615 Conduit Special 3-Inch **P**	415.000 LF	_____.____	_____.____
4360	652.0700.S Install Conduit into Existing Item	2.000 EACH	_____.____	_____.____
4370	653.0220 Junction Boxes 18x6x6-Inch	8.000 EACH	_____.____	_____.____
4380	653.0222 Junction Boxes 18x12x6-Inch	42.000 EACH	_____.____	_____.____
4390	653.0905 Removing Pull Boxes	10.000 EACH	_____.____	_____.____
4400	654.0105 Concrete Bases Type 5	4.000 EACH	_____.____	_____.____
4410	654.0106 Concrete Bases Type 6	14.000 EACH	_____.____	_____.____
4420	655.0610 Electrical Wire Lighting 12 AWG	1,188.000 LF	_____.____	_____.____
4430	655.0625 Electrical Wire Lighting 6 AWG	7,260.000 LF	_____.____	_____.____
4440	655.0630 Electrical Wire Lighting 4 AWG	480.000 LF	_____.____	_____.____
4450	655.0635 Electrical Wire Lighting 2 AWG	1,254.000 LF	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4460	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	10.000 EACH	_____._____	_____._____
4470	657.0322 Poles Type 5-Aluminum	3.000 EACH	_____._____	_____._____
4480	657.0327 Poles Type 6-Aluminum	7.000 EACH	_____._____	_____._____
4490	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	6.000 EACH	_____._____	_____._____
4500	657.0710 Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	1.000 EACH	_____._____	_____._____
4510	659.0600 Underdeck Lighting (location) 001. R-53-0035	LS	LUMP SUM	_____._____
4520	659.0600 Underdeck Lighting (location) 002. R-53-0036	LS	LUMP SUM	_____._____
4530	659.0600 Underdeck Lighting (location) 003. B-53-0332	LS	LUMP SUM	_____._____
4540	659.0600 Underdeck Lighting (location) 004. B-53-0333	LS	LUMP SUM	_____._____
4550	659.0600 Underdeck Lighting (location) 005. R-53-0038	LS	LUMP SUM	_____._____
4560	659.0600 Underdeck Lighting (location) 006. R-53-0039	LS	LUMP SUM	_____._____
4570	659.0600 Underdeck Lighting (location) 007. B-53-0214	LS	LUMP SUM	_____._____
4580	659.0600 Underdeck Lighting (location) 008. B-53-0215	LS	LUMP SUM	_____._____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4590	659.0600 Underdeck Lighting (location) 009. R-53-0040	LS	LUMP SUM	_____.____
4600	659.0600 Underdeck Lighting (location) 010. R-53-0041	LS	LUMP SUM	_____.____
4610	659.1120 Luminaires Utility LED B	6.000 EACH	_____.____	_____.____
4620	659.1125 Luminaires Utility LED C	1.000 EACH	_____.____	_____.____
4630	659.1205 Luminaires Underdeck LED A	22.000 EACH	_____.____	_____.____
4640	659.1210 Luminaires Underdeck LED B	3.000 EACH	_____.____	_____.____
4650	670.0100 Field System Integrator	LS	LUMP SUM	_____.____
4660	670.0200 ITS Documentation	LS	LUMP SUM	_____.____
4670	671.0132 Conduit HDPE 3-Duct 2-Inch **P**	25,255.000 LF	_____.____	_____.____
4680	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch **P**	1,180.000 LF	_____.____	_____.____
4690	672.0250 Base Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
4700	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	_____.____	_____.____
4710	674.0200 Cable Microwave Detector	10,578.000 LF	_____.____	_____.____
4720	674.0300 Remove Cable	330.000 LF	_____.____	_____.____
4730	675.0300 Install Mounted Controller Microwave Detector Assembly	10.000 EACH	_____.____	_____.____
4740	675.0400.S Install Ethernet Switch	3.000 EACH	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4750	677.0150 Install Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
4760	677.0200 Install Camera Assembly	1.000 EACH	_____.____	_____.____
4770	690.0150 Sawing Asphalt	28,809.000 LF	_____.____	_____.____
4780	690.0250 Sawing Concrete	8,638.000 LF	_____.____	_____.____
4790	715.0415 Incentive Strength Concrete Pavement	119,676.400 DOL	1.00000	119,676.40
4800	715.0502 Incentive Strength Concrete Structures	56,244.000 DOL	1.00000	56,244.00
4810	999.1000.S Seismograph	 LS	LUMP SUM	_____.____
4820	999.1500.S Crack and Damage Survey	 LS	LUMP SUM	_____.____
4830	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	2,000.000 HRS	5.00000	10,000.00
4840	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	3,000.000 HRS	5.00000	15,000.00
4850	SPV.0005 Special 001. Subsoiling	1.000 ACRE	_____.____	_____.____
4860	SPV.0035 Special 001. Roadway Embankment	236,256.000 CY	_____.____	_____.____
4870	SPV.0035 Special 002. Roadside Infiltration Ditch Granular Backfill Sand	23,030.000 CY	_____.____	_____.____
4880	SPV.0035 Special 100. Compost	400.000 CY	_____.____	_____.____
4890	SPV.0035 Special 700. High Performance Concrete (HPC) Masonry Structures **P**	6,581.000 CY	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
4900	SPV.0060 Special 001. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
4910	SPV.0060 Special 002. CPM Progress Schedule Updates and Accepted Revisions	30.000 EACH	_____.____	_____.____
4920	SPV.0060 Special 003. Cover Plates Permanent	3.000 EACH	_____.____	_____.____
4930	SPV.0060 Special 004. Access Gate 3-Foot Polymer-Coated	7.000 EACH	_____.____	_____.____
4940	SPV.0060 Special 005. Access Gate 4-Foot	6.000 EACH	_____.____	_____.____
4950	SPV.0060 Special 006. Access Gate 20-Foot Polymer-Coated	1.000 EACH	_____.____	_____.____
4960	SPV.0060 Special 007. Access Gate 6-Foot	1.000 EACH	_____.____	_____.____
4970	SPV.0060 Special 008. Bicycle Rack Concrete-Mounted	5.000 EACH	_____.____	_____.____
4980	SPV.0060 Special 009. Test Pits	30.000 EACH	_____.____	_____.____
4990	SPV.0060 Special 010. Access Gate 3-Foot	5.000 EACH	_____.____	_____.____
5000	SPV.0060 Special 011. Removing Billboard Sign and Sign Structure	3.000 EACH	_____.____	_____.____
5010	SPV.0060 Special 012. Clay Anti-Seepage Collar	2.000 EACH	_____.____	_____.____
5020	SPV.0060 Special 100. Welding Storm Sewer Covers	8.000 EACH	_____.____	_____.____
5030	SPV.0060 Special 101. Sediment Level Monitoring Post	3.000 EACH	_____.____	_____.____
5040	SPV.0060 Special 102. Monitoring Well	1.000 EACH	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
5050	SPV.0060 Special 103. Concrete Cutoff Wall	6.000 EACH	_____.____	_____.____
5060	SPV.0060 Special 104. Covering Storm Sewer	21.000 EACH	_____.____	_____.____
5070	SPV.0060 Special 105. V Notch Weir Wall	6.000 EACH	_____.____	_____.____
5080	SPV.0060 Special 201. Fixed Message Sign Portable Support	37.000 EACH	_____.____	_____.____
5090	SPV.0060 Special 202. Barrier Wall Delineation	2,308.000 EACH	_____.____	_____.____
5100	SPV.0060 Special 203. Temporary Concrete Barrier Gate	2.000 EACH	_____.____	_____.____
5110	SPV.0060 Special 204. Reinstall Temporary Concrete Barrier Gate	2.000 EACH	_____.____	_____.____
5120	SPV.0060 Special 350. Anchor Bolt Cover Shroud	7.000 EACH	_____.____	_____.____
5130	SPV.0060 Special 351. Pull Box Non-Conductive 18x24-Inch	15.000 EACH	_____.____	_____.____
5140	SPV.0060 Special 352. Pull Box Non-Conductive 24x42-Inch	59.000 EACH	_____.____	_____.____
5150	SPV.0060 Special 353. Pull Box Non-Conductive 24x36-Inch	9.000 EACH	_____.____	_____.____
5160	SPV.0060 Special 401. Fiber Tracer Marker Post	16.000 EACH	_____.____	_____.____
5170	SPV.0060 Special 402. Install Wireless Mesh Radio Assembly	1.000 EACH	_____.____	_____.____
5180	SPV.0060 Special 403. Install Hardwired Bluetooth Sensor	1.000 EACH	_____.____	_____.____
5190	SPV.0060 Special 404. Install IP Radio	2.000 EACH	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
5200	SPV.0060 Special 405. Install Solar Power System - Microwave Detector	1.000 EACH	_____.____	_____.____
5210	SPV.0060 Special 406. Remove Poles Wood	1.000 EACH	_____.____	_____.____
5220	SPV.0060 Special 407. Salvage and Reinstall 30-Foot Wood Pole	1.000 EACH	_____.____	_____.____
5230	SPV.0060 Special 408. Salvage and Reinstall Solar-Powered Bluetooth Sensor	2.000 EACH	_____.____	_____.____
5240	SPV.0060 Special 409. Salvage and Reinstall Microwave Detector Assembly	1.000 EACH	_____.____	_____.____
5250	SPV.0060 Special 410. Communication Vault-Round	17.000 EACH	_____.____	_____.____
5260	SPV.0060 Special 650. Utility Line Opening	20.000 EACH	_____.____	_____.____
5270	SPV.0060 Special 651. Adjusting Water Valve Boxes	1.000 EACH	_____.____	_____.____
5280	SPV.0060 Special 652. Adjusting Sanitary Manholes	6.000 EACH	_____.____	_____.____
5290	SPV.0060 Special 653. Corporation Stop, 1-Inch	2.000 EACH	_____.____	_____.____
5300	SPV.0060 Special 654. Curb Stop and Box, 1-Inch Service	2.000 EACH	_____.____	_____.____
5310	SPV.0060 Special 700. Junction Boxes 4x4x4-Inch	3.000 EACH	_____.____	_____.____
5320	SPV.0060 Special 900. Maintenance Doors **P**	7.000 EACH	_____.____	_____.____
5330	SPV.0075 Special 001. Street Sweeping	50.000 HRS	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
5340	SPV.0090 Special 001. Concrete Curb and Gutter 24-Inch Type D	66.000 LF	_____.____	_____.____
5350	SPV.0090 Special 002. Concrete Pavement Joint Sealing	50,800.000 LF	_____.____	_____.____
5360	SPV.0090 Special 003. Re-Lap Guard Rail	550.000 LF	_____.____	_____.____
5370	SPV.0090 Special 004. Reinstall Temporary Snow Fence	8,510.000 LF	_____.____	_____.____
5380	SPV.0090 Special 005. Fence Chain Link Polymer-Coated 6-Foot Ground Mounted **P**	1,181.000 LF	_____.____	_____.____
5390	SPV.0090 Special 006. Furnishing Snow Fence	400.000 LF	_____.____	_____.____
5400	SPV.0090 Special 007. Installing Snow Fence	400.000 LF	_____.____	_____.____
5410	SPV.0090 Special 100. Pipe Boring & Jacking 36-Inch	364.000 LF	_____.____	_____.____
5420	SPV.0090 Special 101. Pipe Boring & Jacking 48-Inch	204.000 LF	_____.____	_____.____
5430	SPV.0090 Special 102. Drain Slotted Vane Longitudinal	1,535.000 LF	_____.____	_____.____
5440	SPV.0090 Special 103. Drain Slotted Vane Longitudinal Temporary	112.000 LF	_____.____	_____.____
5450	SPV.0090 Special 150. Compost Tube	40,515.000 LF	_____.____	_____.____
5460	SPV.0090 Special 202. Maintenance and Removal of Concrete Barrier Temporary Precast Left in Place by Others	16,850.000 LF	_____.____	_____.____
5470	SPV.0090 Special 203. Traffic Control Gawk Screen Furnished	41,820.000 LF	_____.____	_____.____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
5480	SPV.0090 Special 204. Traffic Control Gawk Screen Installed	43,020.000 LF	_____._____	_____._____
5490	SPV.0090 Special 650. Water Service Lateral, 1-Inch	85.000 LF	_____._____	_____._____
5500	SPV.0090 Special 850. Fence Chain Link Polymer-Coated 6-Ft. **P**	1,584.000 LF	_____._____	_____._____
5510	SPV.0105 Special 001. Survey Project 1003-10-84	LS	LUMP SUM	_____._____
5520	SPV.0105 Special 002. Survey Project 1005-10-76	LS	LUMP SUM	_____._____
5530	SPV.0105 Special 003. Survey Project 1005-11-71	LS	LUMP SUM	_____._____
5540	SPV.0105 Special 004. Concrete Pavement Joint Layout	LS	LUMP SUM	_____._____
5550	SPV.0105 Special 005. Survey Project 1003-10-84 with Optional AMG for Concrete Pavement and Base Course	LS	LUMP SUM	_____._____
5560	SPV.0105 Special 006. Survey Project 1005-10-76 with Optional AMG for Concrete Pavement and Base Course	LS	LUMP SUM	_____._____
5570	SPV.0105 Special 350. Electrical Service Meter Breaker Pedestal Special (CB100)	LS	LUMP SUM	_____._____
5580	SPV.0105 Special 351. Electrical Service Meter Breaker Pedestal Special (CB300)	LS	LUMP SUM	_____._____
5590	SPV.0105 Special 352. Electrical Service Meter Breaker Pedestal Special (CB500)	LS	LUMP SUM	_____._____
5600	SPV.0105 Special 353. Electrical Service Meter Breaker Pedestal Special (CB700)	LS	LUMP SUM	_____._____

Proposal ID: 20170711001 **Project(s):** 1003-10-84, 1005-10-76, 1005-11-71

Federal ID(s): WISC 2017326, WISC 2017327, N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
5610	SPV.0105 Special 401. Salvage ITS Equipment	LS	LUMP SUM	_____.____
5620	SPV.0105 Special 701. Removing and Resetting Steel Girders B-53-0214	LS	LUMP SUM	_____.____
5630	SPV.0105 Special 702. Removing and Resetting Steel Girders B-53-0215	LS	LUMP SUM	_____.____
5640	SPV.0165 Special 200. Fixed Message Signs Left in Place	188.000 SF	_____.____	_____.____
5650	SPV.0165 Special 700. Longitudinal Grooving Bridge Deck **P**	150,820.000 SF	_____.____	_____.____
5660	SPV.0165 Special 701. Temporary Shoring Railroad	1,300.000 SF	_____.____	_____.____
5670	SPV.0165 Special 850. Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP **P**	17,620.000 SF	_____.____	_____.____
5680	SPV.0165 Special 851. Temporary Wall Wire Faced Mechanically Stabilized Earth LRFD/QMP	3,690.000 SF	_____.____	_____.____
5690	SPV.0180 Special 150. Roadside Infiltration Ditch Compost	27,105.000 SY	_____.____	_____.____
5700	SPV.0195 Special 700. Excavation, Hauling, and Disposal of Contaminated Soil	1,340.000 TON	_____.____	_____.____
	Section: 0001		**Total:**	_____.____
			Total Bid:	_____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE