HIGHWAY WORK PROPOSAL

Proposal Number: Ø 8

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	1228-26-70	WISC 2013 025	I43 North South Howard Avenue to the Valley Bridge	I 43/I 94

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, $ 920,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: January 8, 2013 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time October 31, 2013	
Assigned Disadvantaged Business Enterprise Goal 20 %	This contract is subject to 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)

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work

Notary Seal

Asphaltic surface milling; HMA pavement; concrete barrier; pavement marking; traffic control; concrete deck overlays on B-40-175, B-40-176, B-40-183, B-40-184, B-40-261, B-40-262, and B-40-285 (16 units); concrete repairs on B-40-170, B-40-171, B-40-172, B-40-173, B-40-174, B-40-177, B-40-178, B-40-180, and B-40-265; polymer overlays on B-40-181 and B-40-182; concrete overlays and concrete parapet replacement on B-40-286 (6 units); painting girders on B-40-174, B-40-175, B-40-176, B-40-177, B-40-180, B-40-181, B-40-182, B-40-183, B-40-184, B-40-286-21, B-40-286-24C, B-40-286-24D, and B-40-286-26; deck replacements on B-40-260 and B-40-263; reconstruction of sign structures S-40-92, S-40-94, and S-40-95; noise barrier N-40-7.

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 2007 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://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm. 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://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm 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.

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://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm**. 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)

FEBRUARY 1999

LIST OF SUBCONTRACTORS

Section 66.29(7), Wisconsin Statutes, provides that a bidder, as a part of his proposal, shall submit a list of the subcontractors he proposes to contract with and the class of work to be performed by each, provided that to qualify for such listing each subcontractor must first submit his bid in writing to the general contractor at least 48 hours prior to the time of bid closing. It further provides that a proposal of a bidder shall not be invalid if any subcontractor, and the class of work to be performed by such subcontractor, has been omitted from a proposal.

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

Name of Subcontractor	Class of Work	Estimated Value
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1228-26-70, I43 North South, Howard Avenue to the Valley Bridge, I 43/I 94 located in Milwaukee 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, 2013 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.
100-005 (20120615)

2. Scope of Work.

The work under this contract shall consist of asphaltic surface milling; HMA pavement; concrete barrier; pavement marking; traffic control; concrete deck overlays on Structures B-40-175, B-40-176, B-40-183, B-40-184, B-40-261, B-40-262, and B-40-285 (16 units); concrete repairs on Structures B-40-170, B-40-171, B-40-172, B-40-173, B-40-174, B-40-177, B-40-178, B-40-180, and B-40-265; polymer overlays on Structures B-40-181 and B-40-182; concrete overlays and concrete parapet replacement on Structure B-40-286 (6 units); painting girders of Structures B-40-174, B-40-175, B-40-176, B-40-177, B-40-180, B-40-181, B-40-182, B-40-183, B-40-184, B-40-286-21, B-40-286-24C, B-40-286-24D, and B-40-286-26; deck replacements on Structures B-40-260 and B-40-263; reconstruction of sign Structures S-40-92, S-40-94, and S-40-95; noise barrier N-40-7; 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.

Prior to beginning operations under this contract submit in writing a proposed schedule of operations and method of coordination and handling traffic to the engineer for approval.

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

Indicate on the contractor's work schedule for any permanent lane closure, when permitted by the engineer, a continuous effort to complete the work in a timely manner.

When permanent lane closures are permitted by the engineer, the work schedule must indicate that a continuous effort is made to complete the work in a timely manner.

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

Do not begin or continue any work that closes the freeway or ramps outside the allowed time periods specified in this article or the article "Traffic." Work on IH 43/IH 94 and ramp shoulders is only allowed during off peak times. Work may be performed, provided such work operations do not include ingress and egress of vehicles and equipment which would obstruct the flow of traffic on the freeway, during peak traffic periods.

When engaged in roadway cleaning operations, use equipment having vacuum or water spray mechanisms to eliminate the dispersion of particulate matter into the atmosphere. If vacuum equipment is employed, it must have suitable self-contained particulate collectors to prevent discharge from the collection bin into the atmosphere.

Asphaltic surface milling includes the concrete base patch areas. This will not be a separate item and the contractor must mill these areas.

Installing Expansion Devices Procured by Others

The expansion devices and associated materials for Structures B-40-175, B-40-176, B-40-183, B-40-184, B-40-261, B-40-262, B-40-285 (16 units), and B-40-286 (6 units) will be delivered to the project site between February 18 and March 18, 2013, per department Contract 1228-26-73. Provide written notice to the engineer three weeks prior to the date the materials are required onsite. The department contact is:

Allen Gilbertson
Wisconsin Department of Transportation Southeast Region
141 NW Barstow Street
P.O. Box 798
Waukesha, WI 53187
Telephone: (262) 548-8817
Email: allen.gilbertson@dot.wi.gov

The site construction contractor – under this Contract 1228-26-70 – is advised that staff and equipment will be required to unload the materials delivered by the procurement contractor – under Contract 1228-26-73.

CPM Program Schedule
Submit a CPM Progress Schedule and updates in accordance to standard spec 108.4.4.

To ensure compatibility with the Master Program Schedule, use the latest version of Primavera Project Planner (P6), by Primavera Systems, Inc., Bala Cynwyd, PA to prepare the Initial CPM Progress Schedule, Monthly CPM Progress Updates and other CPM Progress Revisions requested by the engineer.

Within five business days after award, the department will provide its current standard Work Breakdown Structure and activity codes for the contractor to use to develop the Initial CPM Progress Schedule.

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for approval a professional resume describing a minimum of three years of scheduling experience on interstate-highway reconstruction work of similar size and complexity, including recent experience with P6.

Perform the work in accordance to the following stages as shown in the plans:

Stage 1
Stage 1 begins at Notice to proceed and ends at 11:59 PM April 30, 2013.

Install traffic control devices and temporary pavement markings. Remove mainline median signs except for mile markers. Remove the existing overlay, structure overlays, and one inch of decks of the outside shoulders and outside lanes on IH 43/IH 94 as shown in the plans. Complete HMA overlay along mainline IH 43/IH 94. Complete HMA overlay on the Howard Avenue northbound C-D ramp/Holt Avenue northbound entrance ramp, the Holt Avenue southbound exit ramp, and the National Avenue northbound exit ramps. The National Avenue northbound entrance ramps can be paved in either Stage 1 or Stage 2A.

Install all traffic control devices, detour signing, and complete traffic signal adjustments at STH 794 and Ellen Street prior to closing any freeway lanes during peak hours. Provide the WisDOT electrical shop (414-266-1170) a minimum of five days advance notification to modify traffic signal timing.

Construct concrete overlays on the outside lanes of northbound Structures B-40-176, B-40-184, B-40-262, B-40-285, and B-40-286 and southbound Structures B-40-175, B-40-183, and B-40-261.

Construct deck replacements on Structures B-40-260 and B-40-263.

Construct polymer overlays on the outside lanes of Structures B-40-181 and B-40-182.

Paint girders with corresponding lane closures of Structures B-40-180. Paint girders of Structure B-40-286 over the closed northbound IH 43/IH 94 entrance ramp from 6th Street. Girder painting for Structures B-40-174, B-40-175, B-40-176, B-40-177, B-40-181, B-40-182, B-40-183, B-40-184, and B-40-286 may occur during Stage 1 in locations that do not require lane closures or impact traffic.

Remove existing sand barrels and install attenuators along IH 43 at National Avenue and Lapham Boulevard as shown in the plans. Remove existing vertical-face curb and construct mountable curb and gutter along IH 43/IH 94 near Greenfield Avenue as shown in the plans. Install pavement marking modifications on the northbound IH 43/IH 94 entrance ramp from Holt Avenue as shown in the plans.

Remove High-Occupancy Vehicle (HOV) signs and markings for the Wisconsin Avenue southbound IH 43/IH 94 entrance ramp and install new pavement markings.

Install temporary delineators on median barrier and remove signs from median barrier as shown in the plans.

Rehabilitate the outside shoulder as shown in the plans.

Install pavement markings on the southbound IH 43/IH 94 exit ramp to Lapham Boulevard prior to closing any freeway lanes during peak hours.

Install pavement markings on southbound 6th Street prior to closing any freeway lanes during peak hours.

Stage 2A
Stage 2A begins at 12:01 AM May 1, 2013 and ends at 11:59 PM June 25, 2013.

Install traffic control devices and temporary pavement markings. Remove the existing overlay, structure overlays, and 1 inch of decks of the inside lanes on IH 43/IH 94 as shown in the plans. Complete HMA overlay along mainline IH 43/IH 94 and on the inside shoulders as shown in the plans. Complete HMA on the Mineral Street/Walker Street northbound entrance ramp, Howard Avenue northbound entrance ramp, and Holt Avenue southbound to eastbound exit ramp if not competed in Stage 1.

Construct concrete overlays on the outside lanes of northbound Structures B-40-176, B-40-184, B-40-262, B-40-285, and B-40-286 and southbound Structures B-40-175, B-40-183, and B-40-261.

Construct polymer overlays on the inside lanes of Structures B-40-181 and B-40-182.

Construct deck replacements on Structures B-40-260 and B-40-263.

Paint girders with corresponding lane closures of Structures B-40-180. Paint girders of Structure B-40-286 over closed northbound IH 43/IH 94 entrance ramp Mineral Street/Walker Street if note completed in Stage 1. Girder painting for Structures B-40-174, B-40-175, B-40-176, B-40-176, B-40-177, B-40-181, B-40-182, B-40-183, B-40-184, and B-40-286 may occur during Stage 1 in locations that do not require lane closures or impact traffic.

Construct concrete barrier rehabilitation and replacement on inside shoulders.

Install temporary and permanent pavement markings and permanent signing at the end of Stage 2A as shown in the plans. Move median signs to permanent locations as shown in the plans.

Complete Stage 2A prior to 12:01 AM June 26, 2013, remove all temporary traffic control devices, and open all lanes and all ramps to traffic on finished surfaces in proposed lane configurations. If the contractor fails to complete all work in Stage 2A prior to 12:01 AM June 26, 2013, the department will assess the contractor $25,000 in liquidated damages for each calendar day that the contract work remains incomplete beyond 12:01 AM June 26, 2013.

Stage 2B
Stage 2B begins at 12:01 AM May 19, 2013 and ends at 11:59 PM June 25, 2013.

Install traffic control devices and temporary pavement markings. Remove the existing overlay, structure overlays, shoulder, and one inch of decks of the outside lanes on IH 43/IH 94 as shown in the plans. Complete HMA overlay along mainline IH 43/IH 94 as shown in the plans. Complete HMA on the National Avenue southbound entrance and exit ramps during closures.

Construct concrete overlays on the outside lanes of southbound Structures B-40-285 and B-40-286.

Girder painting for Structures B-40-174, B-40-175, B-40-176, B-40-177, B-40-181, B-40-182, B-40-183, B-40-184, and B-40-286 may occur during Stage 2B in locations that do not require lane closures or impact traffic.

Complete Stage 2B prior to 12:01 AM June 26, 2013. See special provision article "Incentive/Disincentive for Interim Completion of Work, Stage 2B". If the Stage 2B interim completion date is met and the associated work is completed prior to 12:01 AM June 26, 2013, remove traffic control devices associated with the closure of the westbound IH 794 to southbound IH 43 ramp (ES Ramp) and open the ramp to traffic. Additionally, close the southbound IH 43 exit ramp to Lapham Boulevard after the ES Ramp is opened to traffic.

Stage 3
Stage 3 begins at 12:01 AM July 8, 2013 and ends at 11:59 PM August 27, 2013.

Install traffic control devices and temporary pavement markings. Remove the existing overlay, structure overlays, and one inch of decks of the inside lanes on IH 43/IH 94 as shown in the plans. Complete HMA overlay along mainline IH 43/IH 94 as shown in the plans. Complete HMA on the Holt Avenue southbound entrance ramps during closures.

Complete remaining concrete repairs on Structure B-40-265.

Construct remaining concrete barrier rehabilitation and replacement on inside shoulders.

Girder painting for Structures B-40-174, B-40-175, B-40-176, B-40-177, B-40-181, B-40-182, B-40-183, B-40-184, and B-40-286 may occur during Stage 1 in locations that do not require lane closures or impact traffic.

Move median signs to permanent locations as shown in the plans.

Complete Stage 3 prior to 12:01 AM August 28, 2013, remove all temporary traffic control devices, and open all lanes and all ramps to traffic on finished surfaces in proposed lane configurations. If the contractor fails to complete all work in Stage 3 prior to 12:01 AM August 28, 2013, the department will assess the contractor $25,000 in liquidated damages for each calendar day that the contract work remains incomplete beyond 12:01 AM August 28, 2013.

Stage 4
Stage 4 begins at 12:01 AM September 3, 2013 and ends at 11:59 PM October 31, 2013.

Complete sign structure replacements (S-40-92, S-40-94, and S-40-95) on the southbound IH 43/IH 94 exit ramp and the northbound IH 43/IH 94 exit ramp from Becher Street.

Complete painting on the structures noted below and as shown on the plans.

B-40-174, B-40-175, B-40-176 and B-40-177 Becher Street: Paint the girders of the structures over Becher Street. Maintain one lane of traffic in each direction along Becher Street at all times.

B-40-181 and B-40-182 Rosedale Avenue: Paint the girders of the structures over Rosedale Avenue. Close Rosedale Avenue to vehicular traffic for no more than 14 consecutive calendar days. Maintain pedestrian access along Rosedale Avenue for the duration of Stage 4.

B-40-183 and B-40-184 Oklahoma Avenue: Paint the girders of the structures over Oklahoma Avenue. Maintain one lane of traffic in each direction along Oklahoma Avenue at all times.

B-40-286 Washington Street/6th Street: Paint the girders of the structure north of Washington Street and 6th Street. The parking lot under Structure B-40-286 is owned by Milwaukee County and used by staff at the United Community Center (UCC). Contact the UCC at (414) 384-3100 a minimum of seven calendar days for access to the parking lot under the structure.

Use off-peak and night time lane closure to complete grooved pavement marking work as directed by the engineer.

Replace the pavement marking on the IH 43/IH 94 southbound exit ramp to Lapham Boulevard.

Replace the 6th Street pavement marking from the West Virginia Street to Washington Street.

Definitions

The following definitions apply to this contract:

Peak Hours

- 5:30 AM – 8:00 PM Monday, Tuesday, Wednesday, and Thursday
- 5:30 AM – 11:30 PM Friday
- 7:30 AM – 7:00 PM Saturday, Sunday

Off-Peak Hours

- 8:00 PM – 9:30 PM Monday, Tuesday, Wednesday, and Thursday
- 7:00 PM – 11:30 PM Saturday
- 7:00 PM – 9:30 PM Sunday

Night Time Hours

- 9:30 PM – 5:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM,
- Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)
- 11:30 PM – 7:30 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

Full Freeway Closure Hours

- 11:00 PM – 4:00 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

Full Local Street Closure Hours

- 11:00 PM – 5:00 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

Freeway Work Restrictions

Provide a minimum of three lanes in each direction of the freeway and ensure that the freeway is entirely clear for traffic during peak hours, except as shown in the traffic control plans. Provide a minimum of two lanes in each direction of the freeway and ensure that the freeway is entirely clear for traffic during off-peak hours. Provide a minimum of one lane in each direction of the freeway and ensure that the freeway is entirely clear for traffic during night time hours except as allowed during full closure hours. Lane closures shall be in accordance to the standard detail drawings (SDD) and have the approval of the engineer and the Southeast Region Work Zone Engineer (262) 548-6730.

Provide a minimum of two lanes in each direction on IH 43/IH 94 during evenings of full freeway closures on IH 894/USH 45 at Dakota Street, Cleveland Avenue, and Greenfield Avenue. Project contact information is available in the article "Coordination with other projects."

If the contractor fails to open all lanes of traffic and ramps by the specified times, a reduction of $15,000 per hour per traffic lane or system ramp for each hour of lane or system ramp closure violations will be made from monies due to the contractor. This reduction is a quarterly fraction of the $15,000 hourly reduction rate for each 15-minute increment during which the lane or ramp closure violation occurs. The total reduction from monies due to the contractor is the summation of the separate reductions for each lane and each system ramp closure violation.

If the contractor fails to open all service ramps by the specified times, then a reduction of $7,500 per hour per service ramp for each hour of service ramp closure violations will be made from monies due to the contractor. This reduction is a quarterly fraction of the $7,500 hourly reduction rate for each 15-minute increment during which the lane or ramp closure violation occurs. The total reduction from monies due to the contractor is the summation of the separate reductions for each service ramp closure violation.

These sums will be considered and treated not as a penalty but as fixed, agreed liquidated damages due the department from the contractor caused by the inconvenience to the traveling public, additional costs incurred for engineering and supervision, additional maintenance of detours and other incidental items that collectively cause an increased expenditure of public funds by the contractor's failure to open freeway lanes and ramps in a timely manner.

The department will assess hourly interim liquidated damages for the roadway lanes and ramps not being open to through traffic under the Failing to Open Road to Traffic administrative item.

Permitting the contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the department of any of its rights under the contract.

Freeway Shoulder Closures
During Stage 2, closure of inside shoulders is allowed. During Stage 1, closure of outside shoulders is allowed. During Stage 3, do not shoulder closures during the morning (5:30 AM – 9:00 AM) and afternoon (2:00 PM - 7:00 PM) peak traffic periods.

Freeway Service Ramp Closures
Ramps shall be open to traffic at all times except for approved night time hour or off-peak hour closures, except long term ramp closures as shown in the plan and as directed by the engineer.

Freeway System Ramp Closures
Freeway system ramps shall be open to traffic at all times except for approved night time hour closures, except long term ramp closures as shown in the plan and as directed by the engineer.

Migratory Birds
Swallow and other migratory birds' nests have been observed on or under the existing bridge. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established, or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds, or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Removing Old Structure.

Work which may disturb or destroy occupied nests during the nesting period will require the field manager or contractor to contact the DOT Wetland Ecologist to inform him or her of the existing circumstances. In the event that eggs, nestlings or both are present in a nest, coordinate with Brian Nelson, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, (920) 324-4514 for removal. In the event that numerous nests are occupied, apply for a depredation permit from the US Fish and Wildlife Service, as noted above.

4. Traffic.

Complete the construction sequence and the associated traffic control and detours as detailed on the plans and as follows:

Stage 1
Maintain two lanes of traffic on the insides lanes of northbound IH 43/IH 94 from Howard Avenue to the Marquette Interchange during peak hours. Maintain two lanes of traffic on the inside lanes of southbound IH 43/IH 94 from Mitchell Street to Howard

Avenue during peak hours. Close the northbound IH 43/IH 94 entrance ramp from Holt Avenue and Howard Avenue for the duration of Stage 1. Close the southbound IH 43/IH 94 exit ramp to Holt Avenue for the duration of Stage 1. Close all northbound ramps of the interchange of IH 43/IH 94, STH 59 (National Avenue), and 6th Street for the duration of Stage 1. Do not close any lanes of roadways crossing IH 43/IH 94.

Stage 1 Detour Route: Howard Avenue Northbound Entrance Ramp
The Howard Ave northbound entrance ramp will be closed during Stage 1. From the Howard Avenue collector-distributor ramp, traffic will be signed to use Holt Avenue eastbound, Chase Avenue northbound, 1st Street northbound, Lincoln Avenue westbound, and 4th St northbound to the northbound IH 43/IH 94 entrance ramp at Becher Street.

Stage 1 Detour Route: Holt Avenue Northbound Entrance Ramp
The Holt Avenue northbound entrance ramp will be closed during Stage 1. Traffic will be signed to use Holt Avenue eastbound, Chase Avenue northbound, 1st Street northbound, Lincoln Avenue westbound, and 4th Street northbound to the northbound IH 43/IH 94 entrance ramp at Becher Street.

Stage 1 Detour Route: National Avenue Northbound Exit Ramp
The National Avenue northbound exit ramp will be closed during Stage 1. Traffic will be signed to exit northbound IH 43/IH 94 at the Lapham Boulevard exit. This exit ramp is combined with the Becher Street exit ramp. Traffic will exit Lapham Boulevard and continue on 4th Street/Polcyn Street/5th Street northbound back to National Avenue.

Stage 1 Detour Route: Mineral Street/Walker Street Northbound Entrance Ramp
The Mineral Street/Walker Street northbound entrance ramp will be closed during Stage 1. Traffic will be signed to use 6th Street northbound to the westbound IH 94 ramp at Clybourn Street and the IH 43 northbound ramp at the Kilbourn tunnel.

Stage 1 Detour Route: Holt Avenue Southbound Exit Ramp
The Holt Avenue southbound exit ramp will be closed during Stage 1. Traffic will be signed to continue on southbound IH 43/IH 94 to the Howard Avenue exit ramp. Traffic will use Howard Avenue westbound and 6th Street northbound to Holt Avenue/Morgan Avenue.

Stage 1 Detour Route: Ellen Street to Southbound STH 794
The southbound entrance to STH 794 from Ellen Street will be closed during Stage 1. Traffic will be signed to continue southbound on Ellen Street, northbound on STH 794, exit to Carferry Drive, westbound on Carferry Drive, enter southbound STH 794, and continue on southbound STH 794.

Stage 2A
Maintain two lanes of traffic on the outside lanes and shoulder of northbound IH 43/IH 94 from Howard Avenue to the Marquette Interchange during peak hours. Maintain two lanes of traffic on the outside lanes of southbound IH 43/IH94 from Mitchell Street to Howard Avenue during peak hours. Close the northbound IH 43/IH 94

entrance ramp from W. Mineral Street/W. Walker Street for the duration of Stage 2A. Close the northbound Howard Avenue entrance ramp for the duration of Stage 2A. Close the southbound to eastbound Holt Avenue exit ramp for the duration of Stage 2A. Do not close any lanes of roadways crossing IH 43/IH 94.

Stage 2A Detour Route: Howard Avenue Northbound Entrance Ramp
The Howard Ave northbound entrance ramp will be closed during Stage 2A. From the Howard Avenue collector-distributor ramp, traffic will be signed to exit Holt Avenue then continue north on the Holt Avenue entrance ramp.

Stage 2A Detour Route: Mineral Street/Walker Street Northbound Entrance Ramp
The Mineral Street/Walker Street northbound entrance ramp will be closed during Stage 2A. Traffic will be signed to use 6th Street northbound to the westbound IH 94 ramp at Clybourn Street and the northbound IH 43 ramp at the Kilbourn Tunnel.

Stage 2A Detour Route: Holt Avenue Eastbound Southbound Exit Ramp
The southbound exit ramp to Holt Avenue eastbound will be closed during Stage 2A. Traffic will be signed to continue on southbound IH 43/IH 94 to the Howard Avenue exit ramp. Traffic will use Howard Avenue westbound and 6th Street northbound to Holt Avenue/Morgan Avenue.

Stage 2A Detour Route: Ellen Street to Southbound IH 794
The southbound entrance to STH 794 from Ellen Street will be closed during Stage 1. Traffic will be signed to continue southbound on Ellen Street, northbound on STH 794, exit to Carferry Drive, westbound on Carferry Drive, enter southbound STH 794, and continue on southbound STH 794.

Stage 2B
Maintain two lanes of traffic on the inside lanes and shoulder of southbound IH 43/IH 94 from the Marquette Interchange to Greenfield Avenue during peak hours. Close the ramp from westbound IH 794 to southbound IH 43/IH 94 (ES Ramp) for the duration of Stage 2B. Close the southbound IH 43/IH 94 entrance and exit ramps to and from W. Mineral Street for the duration of Stage 2B. Do not close any lanes of roadways crossing IH 43/IH 94.

Stage 2B Detour Route: National Avenue/6th Street Southbound Exit Ramp
The National Avenue/6th Street southbound exit ramp will be closed during Stage 2B. Traffic will be signed to continue on southbound IH 43/IH 94 to the Lapham Boulevard exit ramp. Traffic will use Lapham Boulevard westbound and 6th Street northbound back to National Avenue.

Stage 2B Detour Route: IH 794 Westbound to IH 43/IH 94 Southbound System Ramp (ES Ramp – Marquette Interchange)
The East-South Ramp will be closed during Stage 2B. The detour route will be signed to direct traffic onto northbound IH 43 where they can access southbound IH 43 at the Fond du Lac Ave interchange.

Stage 2B Detour Route: Mineral Street Southbound Entrance Ramp
The Mineral Street southbound entrance ramp will be closed during Stage 2B. Traffic will be signed to use 9th Street northbound, National Avenue eastbound, and 6th Street/Baraga Street/5th Street southbound back to the Lapham Boulevard southbound entrance ramp to IH 43/IH 94.

Stage 2B (Summerfest) and Lapham Boulevard Exit Ramp Detour
If the Stage 2B interim completion date is met and the associated work is completed prior to 12:01 AM June 26, 2013, open the westbound IH 794 to southbound IH 43 ramp (ES Ramp) to traffic and close the southbound IH 43 exit ramp to Lapham Boulevard. Maintain all other traffic as described in Stage 2B of this article.

The Lapham Boulevard southbound exit ramp will be closed for the duration of Summerfest (June 26, 2013 – July 7, 2013) provided that the Stage 2B interim completion date is met. Traffic will be signed to continue on southbound IH 43. Traffic will use the exit ramp to 5th Street/Becher Street, continue eastbound on Becher Street, and northbound on 4th Street to Lapham Boulevard.

Stage 3
Maintain two lanes of traffic on the outside lanes and shoulder of southbound IH 43/IH 94 from the Marquette Interchange to Greenfield Avenue during peak hours. Close the ramp from westbound IH 794 to southbound IH 43/IH 94 for the duration of Stage 3. Close the southbound IH 43/IH 94 entrance ramps from Mineral Street for the duration of Stage 3. Close the southbound Howard Avenue exit ramp during off-peak and/or night time hours. Do not close any lanes of roadways crossing IH 43/IH 94.

Stage 3 Detour Route: IH 794 Westbound to IH 43/IH 94 Southbound System Ramp (ES Ramp – Marquette Interchange)
The East-South (ES) Ramp will be closed during Stage 3. The detour route will be signed to direct traffic onto northbound IH 43 where they can access southbound IH 43 at the Fond du Lac Ave interchange.

Stage 3 Detour Route: Mineral Street Southbound Entrance Ramp
The Mineral Street southbound entrance ramp will be closed during Stage 3. Traffic will be signed to use 9th Street northbound, National Avenue eastbound, and 6th Street/Baraga Street/5th Street southbound back to the Lapham Boulevard southbound entrance ramp to IH 43/IH 94.

Stage 3 Detour Route: IH 43/IH 894 Eastbound to IH 43/IH 94 Northbound Ramp (WN Ramp – Mitchell Interchange)
The West-South Ramp will be closed during off peak hours in Stage 3. Traffic will be signed to use IH 94/USH 41 southbound, College Avenue eastbound, and IH 94/USH 41 northbound back to IH 43/IH 94 northbound.

Stage 4
Maintain all lanes of traffic in each direction IH 43/IH 94 during peak hours. Maintain IH 43/IH 94 exit and entrance ramp traffic during peak hours.

Stage 4 Detour Route: Rosedale Avenue
Rosedale Avenue will be closed during Stage 4 painting operations. Traffic will be signed to use 6th Street southbound, Oklahoma Avenue eastbound, and Chase Avenue northbound (for eastbound traffic to Chase Avenue).

Alternate Route
There are several alternate routes that will be utilized by diverted traffic including both regional freeway routes and the adjacent local street network. Provide a signed alternate route via IH 794/STH 794 as shown in the plans. This signed route utilizes Layton Avenue as the southern connection between STH 794 and IH 43/IH 94.

The contractor is advised that the IH 894 bypass will allow traffic from the Mitchell Interchange, Hale Interchange, and Zoo Interchange to strategically decide in advance to divert from the work zone.

Advance Notification
Provide the engineer with a schedule of lane and ramp closures for the following week by noon on Thursday of the previous week. In addition, provide the following minimum advance notification to the engineer for incorporation into the Wisconsin Lane Closure System.

Ramp Closures	3 business days
System Ramp Closures	7 calendar days
Lane Closures	3 business days
Full Freeway Closures	14 calendar days
Construction Stage Changes	14 calendar days
Detours	14 calendar days

Notify the engineer and WisDOT Statewide Traffic Operations Center at (414) 227-2142 if there are any changes in the schedule, early completions, or cancellations of scheduled work. Notify WisDOT Signal Operations at (414) 750-2605 and WisDOT Electrical Field Unit at (414) 266-1170 regarding changes for alternate routes and detours.

All fixed message signs, except for ramp closures, shall be installed as shown on the plans at least 14 calendar days prior to commencing stage construction or as indicated elsewhere.

Closures
Post all entrance and exit ramp closures three business days in advance of their closure with dates and time of closure. Do not close consecutive ramps.

Post all freeway-to-freeway ramp closures seven calendar days in advance of their closure with dates and times of closure.

Complete closures of local streets are anticipated for Holt Avenue for deck removal and are permitted between 11:00 PM and 5:00 AM.

Complete closure of Rosedale Avenue is anticipated for bridge painting operations and is restricted to 14 consecutive calendar days.

Cancellations
Notify the State Traffic Operations Center (STOC) of any closure cancellations or early completions as soon as possible.

Coordination with Milwaukee County Sheriff
Notify and request assistance 14 calendar days in advance from the Milwaukee County Sheriff's Department for freeway closures, lane closures, freeway-to-freeway system ramp closures and stage changes.

Detour
Detour traffic as shown on the plans. Install required traffic control and detour signs as shown on the plans at least 14 calendar days prior to beginning stage construction; remove the detour after completion of the project. Cover advance-warning signs and detour signs until work begins.

Stage Changes
Traffic control for stage changes will only be allowed during night time and/or freeway closure hours.

Complete closures of the freeway will only be permitted during full closure hours and are limited to northbound staged closures. Changes to southbound staging will be restricted to freeway-to-freeway system ramps. Full closure of southbound IH 43/IH 94 will not be permitted, and a minimum of one southbound freeway-to-freeway ramp must remain open at all times.

Proposed stage changes may require the State Traffic Operations Center (STOC) to refocus existing microwave detectors. Notify Dean Beekman at (414) 227-2154 seven calendar days prior of a proposed stage change to allow the STOC time to schedule the modifications with the maintenance contractor.

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 43/IH 94 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. The following holiday periods:

- From noon Friday, May 24, 2013 to 6:00 AM Tuesday, May 28, 2013 for Memorial Day;
- From noon Wednesday, July 3, 2013 to 6:00 AM Monday, July 8, 2013 for Independence Day;
- From 6:00 AM Thursday, August 29, 2013 to 6:00 AM Tuesday, September 3, 2013 for Labor Day.

- On midnight to noon on Sunday, June 2, 2013, no lane, shoulder or ramp closures in addition to the long-term staged closures will be allowed due to the United Performing Arts Fund (UPAF) Ride for the Arts. Coordinate event details and work restrictions with Clint Baer (cbaer@summerfest.com or (414) 273-2680);

- From midnight to noon on Saturday, June 15, 2013, no lane, shoulder or ramp closures in addition to the long-term staged closures will be allowed due to the Summerfest Rock 'n Sole run. Coordinate event details and work restrictions with Kyle Dlabay (kdlabay@upof.org or (414) 270-4482);

- On days with a Milwaukee Brewers home game at Miller Park, from the three hours prior to the start of the game no northbound lane, shoulder, or ramp closures in addition to the long-term staged closures will be permitted and two hours after completion, no southbound lane, shoulder, or ramp closures in addition to the long-term closures will be permitted;

- On days with Summerfest (June 26, 2013 – July 7, 2013) at Henry Maier Festival Grounds, no lane, shoulder or ramp closures in addition to the long-term staged closures will be permitted;

- On days with the Wisconsin State Fair (August 1, 2013 – August 11, 2013) at State Fair Park, no southbound lane, shoulder or ramp closures in addition to the long-term staged closures will be permitted;

- On days of the 110th Harley-Davidson Anniversary celebration (August 29, 2013 – September 1, 2013) at Henry Maier Festival Grounds, no lane, shoulder or ramp closures will be permitted.

107-005 (20050502)

6. Utilities.

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

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this 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 ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Some utility work, as described below, is dependent on prior work being performed by the contractor at a specific site. Provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Notice shall be given 14 to 16 calendar days in advance of when the site will be available to the utility. Follow up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Contact each utility company listed in the plans, prior to preparing bids, to obtain current information on the status of existing and any new utility relocation work.

ATC has three underground transmission lines within the scope of this project. They are located at Oklahoma Ave. Canal Street and W. Virginia.

Relocation or adjustment of existing ATC facilities is not anticipated. The department does not anticipate any excavation around ATC facilities, however if such facilities are encountered, protect as noted below.

Excavation near the ATC HPFF pipe cables requires an ATC representative on site during construction.

Potholing using vacuum excavation or hand tools is required when crossing the pipe cables or when excavating in close proximity to verify the location and depth. A minimum three day prior notification is required (telephone Ron Latus at (262) 364-9048). A Construction Specification, outlining these and other requirements, is available upon request.

The contractor is responsible for taking any and all precautions to avoid soil compaction, sinking and any other circumstances that would cause damage to the 138kV pipe cables. The pipe cable must be adequately protected using mats or steel road plating during all work activities over the pipe cable. When heavy equipment is positioned on soil over the ATC pipe cable, the entire area under the equipment must be reinforced using appropriate construction matting to equalize the weight over the pipe cable.

The ATC contact is Michael Olsen, (920) 338-6582 office / (920) 660-2390 mobile.

The **City of Milwaukee** has various water and/or sewer facilities attached to a number of structures included in the project. No City of Milwaukee facilities are anticipated to conflict with the contract work. No relocation of City of Milwaukee facilities is anticipated as a result of this project.

The City of Milwaukee has a number of construction projects occurring simultaneously with this project (see article “Coordination with other projects.”). One project involves sewer lining work in the area bounded by W. Lapham Boulevard, W. Greenfield Avenue, S. 3rd Street, S. 4th Street, and S. 5th Street. This work will include lining the manhole near the bridge deck for W. Greenfield Avenue overpass (B-40-170). The work is

scheduled to be completed in 2013. Coordinate with the City of Milwaukee during construction.

A city-owned 12-inch storm sewer crosses underneath the existing noise barrier at W. Morgan Street (extended). No conflict is anticipated between the city's facilities and the proposed noise barrier foundation. Coordinate with the City of Milwaukee during construction and use manufacturer-approved details to modify the design as necessary and as directed by the engineer.

Within the vicinity of the project, the city has a 30-inch water main along S. 4th Street, an 8-inch water main near sign Structure S-40-92, a 36-inch water main at Station 14+35 along W. Warnimont Avenue (5 feet south of the reference line), and an 84-inch water main at approximately Station 2+20 along W. Morgan Avenue (extended, 16 feet north of the reference line). No conflicts are anticipated, but coordinate with the City of Milwaukee during construction at locations in the vicinity of any excavation.

The City of Milwaukee contact for all city-owned utilities is Tony Kotecki, (414) 286-2433.

The city owns and operates a number of traffic signals with loop detectors in the vicinity of the project. Milling and overlaying work will impact loop detector(s) at the southbound IH 43/IH 94 exit ramp to 6th Street. Provide Al Nichols, (414) 286-3687, with a minimum of seven days advance notice prior to any milling or paving activities on the ramp.

Milwaukee Metropolitan Sewerage District (MMSD) has facilities crossing Structures B-40-174, B-40-177, B-40-179, B-40-180, B-40-181, B-40-182, B-40-264, B-40-265, B-40-285, B-40-286-24A, and B-40-286-24B and a combined sewer outfall near Structure B-40-285. MMSD has manholes in or near a number of the bridge approaches and ramps. MMSD also has intercepting structures, junction chambers, and diversion structures in and around the interchange of IH 43 and W. Becher Street. No MMSD facilities are anticipated to conflict with the contract work.

Coordinate with MMSD for any work occurring in the vicinity of the locations noted above. In addition, coordinate work under this project with the MMSD project noted in article "Coordination with other projects."

The MMSD contact is Debra Jensen, (414) 225-2143.

Sprint Communication
Utility is in non-compliance with Trans 220, no work plan was returned.

TW Telecom
Utility is in non-compliance with Trans 220, no work plan was returned.

WE Energies has a steam pipe located at Structure B-40-285. All the steam facilities in this area are supported from the bridge girders underneath the existing road slab. The proposed work under this contract appears to be above the existing road slab and should have no effect on the steam pipe.

The WE Energies (steam) contact is Ryan McMullen, (414) 221-5409, ryan.mcmullen@we-energies.com.

WisDOT – Lighting has freeway lighting facilities located throughout the project area and at as well as on Structures B-40-260 (southbound collector-distributor ramp over Holt Avenue) and B-40-263 (northbound collector-distributor ramp over Holt Avenue). Remove and replace the lighting on these two structures as shown in the plans.

The WisDOT lighting contact is Matthew Pfeifer, (414) 266-1154, matthew.pfeifer@dot.wi.gov.

WisDOT – STOC has ITS facilities located throughout the project area along IH 43/IH 94. Install conduits in the bridge parapets as detailed on the plans. WisDOT has plans for a temporary feed to maintain service during construction. These plans depend on adherence to planned construction staging and completion of fiber optic cable reinstallation according to described schedule.

WisDOT – STOC may need to refocus existing microwave detectors during the project. Notify the STOC of any proposed stage changes or if any detection equipment requires adjustment as a result of work under this contract seven (7) calendar days prior of a proposed stage change to allow the STOC time to schedule the modifications with the maintenance contractor.

The WisDOT – STOC contact is Dean Beekman, (414) 227-2154, dean.beekman@dot.wi.gov.

7. Coordination with Other Projects.

Coordinate traffic requirements under this contract with other ongoing Department of Transportation construction projects. Contractor is responsible for implementing and coordinating traffic control measures with other contracts.

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

Coordinate work operations between this contract and the following contracts:

Department Project 1060-33-77, IH 894/USH 45, Greenfield Avenue Bridge, contact WisDOT project manager, Jason Lynch at 414-750-0538;

Department Project 1090-07-73, IH 894/USH 45, Cleveland Avenue Bridge, contact WisDOT project manager, James Keegan at 262-220-5448;

Department Project 1100-03-79, IH 894/USH 45, Dakota Street Pedestrian Bridge, contact WisDOT project manager, James Keegan at 262-220-5448;

Department Project 1228-26-73, Early Steel, IH 43/IH 94, Howard Avenue to the Valley Bridge, contact WisDOT project manager Allen Gilbertson at (262) 548-8817. Advanced steel procurement work under this contract for structures included Project 1228-26-70 is fabricated and ready for delivery. The work under these contracts is not expected to inhibit any construction under this contract;

Department Project 1300-13-00, IH 794 (Hoan Bridge), Milwaukee River to Lincoln Avenue, contact WisDOT project manager, Carolynn Gellings at (262) 548-8716;

Department Project 2984-24-70, Kinnickinnic River Bike Trail, Chase Avenue Pedestrian Bridge, contact City of Milwaukee project manager, Mike Loughran at (414) 286-3304;

City of Milwaukee 2013 Project, S. 5th Street, Lincoln Avenue to Becher Street, contact Director of Public Works, Jeffrey Polenske at (414) 286-3701;

City of Milwaukee 2013 Project, S. 5th Street, Becher Street Southbound Entrance Ramp, contact Director of Public Works, Jeffrey Polenske at (414) 286-3701;

Milwaukee Metropolitan Sewerage District 2013 Project, Rosedale Avenue, 6th Street to Chase Avenue, contact Planning Services Supervisor, Debra Jensen at (414) 225-2143;

Canadian Pacific Railroad 2013 Project, Kinnickinnic Ave, North of Becher Street, contact Canadian Pacific Engineer, Derek Harter at (630) 860-4975.

8. Railroad Insurance and Coordination – Canadian Pacific Railway Company.

A Description

Comply with standard spec 107.17 for all work affecting Soo Line Railroad Company, d/b/a Canadian Pacific Railway Company 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 Soo Line Railroad Company, d/b/a Canadian Pacific Railway Company.

Notify evidence of the required coverage, and duration to Canadian Pacific Railway Company at Canadian Pacific Plaza, 120 South 6th Street, 9th Floor, Minneapolis, MN 55402 Attention Jim Krieger, Engineer – Public Works. Include the following information on the insurance document:

Project 1228-26-70
Route Name IH 43, Milwaukee County

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 Jim Krieger, Manager Public Works, Canadian Pacific Plaza, 120 South 6th Street, 9th Floor, Minneapolis, MN 55402, TELEPHONE (612) 904-5994, FAX (612) 904-6010, jim_krieger@cpr.ca, 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
Approximately 16 passenger trains and 24 through freight trains operate daily through the construction site. Passenger trains operate at up to 79 mph. Through freight trains operate at up to 60 mph. In addition to through movements there are switching movements at slower speeds.

A.6 Temporary Clearances During Construction
Replace subparagraphs (2) 4.1 and (2) 4.2 of standard spec 107.17.1 with the following:

> Provide 12 feet plus 1.5 inches (38 mm) per degree of track curvature, measured horizontally from the track center line.
>
> Provide 21 feet, 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 subsection 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 14 business days before starting work near a track. Provide the specific time planned to start the operations.

C.2 Rates – Canadian Pacific (Soo Line)

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

$700 daily rate for an eight-hour day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$1,000 daily rate for an eight-hour day on Saturdays, Sundays or holidays (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),

$125 per hour overtime rate for all time worked before or after the regular assigned eight hours on any day, or for a minimum three hour call on Saturdays, Sundays, or Holidays.

If a flagger must be relieved due to hours of service requirements, arrangements will be made for a relief flagger.

The flagger is required to set flags each day in advance of the contractor commencing work that will require flagging. The flagger must also remove the flags each day after the completion of work that required flagging. Any time worked before or after the minimum eight-hour flagging day to set or remove flags will be billed at the overtime rate. The contractor is responsible for knowing the requirements of the railroad for arranging and terminating flagging services and for the associated costs of those services.

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 1 year(s) and must be renewed for projects that will carry over beyond the 1 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.
107-034 (20110615)

9. Railroad Insurance and Coordination – Union Pacific Railroad Company.

A Description
Comply with standard spec 107.17 for all work affecting Union Pacific Railroad Company 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 Union Pacific Railroad Company.

Notify evidence of the required coverage, and duration to Union Pacific Railroad Company at 301 West Lake Street, Room 103, Northlake, IL 60164, Attention John Venice, Manager of Special Projects - Industry and Public Projects. Include the following information on the insurance document:

Project Id 1228-26-70
Route Name IH 43, Milwaukee County

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 John Venice, Manager Special Projects – Industry and Public Projects Engineering Department, 101 North Wacker Drive – Suite 1920, Chicago, IL 60606, TELEPHONE (312) 777-2043, FAX (402) 233-2769, email jnvenice@up.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

Approximately 12 through freight trains operate daily through the construction site. Through freight trains operate at up to 40 mph. In addition to through movements there are switching movements at slower speeds.

A.6 Temporary Clearances During Construction

Replace subparagraphs (2) 4.1 and (2) 4.2 of standard spec 107.17.1 with the following:

> Provide 12 feet plus 1.5 inches (38 mm) per degree of track curvature, measured horizontally from the track center line.
>
> Provide 21 feet 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 14 business days before starting work near a track. Provide the specific time planned to start the operations.

C.2 Rates – Union Pacific

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging (if per diem is necessary, as determined by the Manager of Industry and Public Projects (MIPP), add $57 per day):

$526 daily rate for an eight-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses),

$1,052 "Rest Time" or nightly rate for weekday overnight work for an eight-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses)

$760 daily rate for an eight-hour day on Saturdays, Sundays, or holidays (including wages, labor surcharges, lodging, vehicle and mileage expenses)

$1,520 “Rest Time” or nightly rate for weekend overnight work for an eight-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses)

$88 per hour overtime rate for all time worked before or after the regular assigned eight hours on any day, or for a minimum three hour call on Saturdays, Sundays, or Holidays.

The flagger is required to set flags each day in advance of the contractor commencing work that will require flagging. The flagger must also remove the flags each day after the completion of work that required flagging. Any time worked before or after the minimum eight-hour flagging day to set or remove flags will be billed at the overtime rate. The contractor is responsible for knowing the requirements of the railroad for arranging and terminating flagging services and for the associated costs of those services.

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 1 year(s) and must be renewed for projects that will carry over beyond the 1 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.

107-034 (20110615)

10. Environmental Protection, Aquatic Exotic Species Control.

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, "Transportation of Aquatic Plants and Animals; Placement of Objects in Navigable Waters", details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

At construction sites that involve navigable water or wetlands, use the follow cleaning procedures to minimize the chance of exotic invasive species infestation. Use these procedures for all equipment that comes in contact with waters of the state and/or infested water or potentially infested water in other states.

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov//fish/documents/disinfection_protocols.pdf) for disinfection:

- Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
- Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
- Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or invested waters; and
- Disinfect your boat, equipment and gear by either:

- Washing with ~212º F water (steam clean), or
- Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
- Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104º F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.
107-055 (20110615)

11. Notice to Contractor – Emerald Ash Borer.

Clearing and Grubbing
This applies to projects in the emerald ash borer (EAB) quarantined zones to include the following Counties:

Brown	Crawford	Fond du Lac,	Kenosha,
La Crosse	Milwaukee	Ozaukee	Racine
Sheboygan	Vernon	Washington	Waukesha

Supplement standard spec 151-1.3 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 sugar maple (Acer saccharum).

The quarantine of ash trees includes all horticultural cultivars of the species listed above. Note that blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems. Also, 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 florescent lime flagging tied around the trunk perimeter.

Follow and obey the following Wisconsin Department of Agriculture, Trade, and Consumer Protection order:

ATCP 21.17 Emerald ash borer; import controls and quarantine.
Importing or Moving Regulated Items from Infested Areas; Prohibition.
Except as provided in subparagraph (3), no person may do any of the following:

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

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

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

Regulated Items. The following are regulated items for purposes of subparagraph (1):
- The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.
- Ash trees.
- Ash limbs, branches, and roots.
- Ash logs, slabs or untreated lumber with bark attached.
- Cut firewood of all non-coniferous species.
- Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.
- Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

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

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

Chipped Ash Trees
May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.

With the written permission of the engineer, chipped material may be buried on site within the airport property as directed by the engineer in accordance to standard spec 201.3(14).

May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer in accordance to standard spec 201.3 (15).

May be trucked to a licensed landfill within the quarantined zone with the engineer's approval in accordance to standard spec 201.3(15).

Burning chips is optional if in compliance with standard spec 201.3.

Chips must be disposed of immediately if not used for project mulching and may not be stockpiled and left on site for potential transport by others. Chips may be stockpiled temporarily if they will be used for project mulching and are not readily accessible to the public.

Chipper equipment must be cleaned following post-chipping activities to ensure no spread of wood chip debris into non-quarantined counties.

Ash logs, Branches, and Roots
May be buried without chipping within the existing right-of-way or on adjacent properties in accordance to standard spec 201.3 (14)(15).

May be trucked to a licensed landfill within the quarantined zone with the engineer's approval in accordance to standard spec 201.3 (15).

Burning is optional if in compliance with standard spec 201.3.

Ash logs, branches, and roots must be disposed of immediately and may not stockpiled.

All additional costs will be incidental to clearing and grubbing items.

Do not bury or use mulch in an area that will be disturbed again during later phases of the project.

Anyone moving firewood or ash products from the state or these counties is subject to state and federal fines up to $1,000.00. All fines are the responsibility of the contractor.

Obtain updated quarantine information at the DNR Firewood Information Line at (800) 303-WOOD.

Furnishing and Planting Plant Materials
Ash trees may be obtained from inside or outside the quarantine area and planted within the quarantined area. Ash trees from within the quarantine area may not be transported and planted into the non-quarantined area.

Updates for Compliance
Each year, as a service, the Wisconsin department of agriculture, trade and consumer protection distributes an updated federal CFR listing to nursery license holders and other affected persons in this state. More frequent updates, if any, are available on the Department of Agriculture, Trade, and Consumer Protection (DATCP) website at www.datcp.state.wi.us. subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from the DATCP. Persons may request update notices by calling (608) 224−4573, by visiting the DATCP website, or by writing to the following address:

Wisconsin Department of Agriculture, Trade and Consumer Protection
Division of Agricultural Resource Management
P.O. Box 8911
Madison WI 53708−8911

Regulated Items
More frequent updates, if any, are available on the DATCP website at w*ww.datcp.state.wi.us.* subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from DATCP. Persons may request update notices by calling (608) 224−4573, by visiting the DATCP website, or by writing to the above address.

12. Construction Over or Adjacent to Navigable Waters.

Supplement standard spec 107.19 with the following:

The Menomonee River and the Kinnickinnic River are classified as navigable waterways. 107-060 (20040415)

13. 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.
107-070 (20030820)

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

John Roelke, License Number AII-119523, inspected Structures B-40-175, B-40-176, B-40-181, B-40-182, B-40-183, B-40-184, B-40-261, B-40-262, B-40-286-24A, and B-40-286-24B for asbestos on November 16, 2011 and Structure B-40-285 (20 Units) on December 13, 2011. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Allen Gilbertson at (262) 548-8817.

In accordance 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 Allen Gilbertson at (262) 548-8817 and DOT BTS-ESS attn: Hazardous Materials Specialist PO Box 7965, Madison, WI. 53707-7965. In addition, comply with all local or municipal asbestos requirements.
Use the following information to complete WisDNR form 4500-113:

- Site Name: Structure B-40-175, IH 94 eastbound-IH 43 southbound over W. Becher Street
- Site Address: Lat. 430024, Long. 875454, Section 05, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 46,255 SF of deck

- Site Name: Structure B-40-176, IH 94 westbound-IH 43 northbound over W. Becher Street
- Site Address: Lat. 430024, Long. 875500, Section 05, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 57,655 SF of deck

- Site Name: Structure B-40-181, IH 94 eastbound-IH43 southbound over the Kinnickinnic River
- Site Address: Lat. 425942, Long. 875454, Section 08, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 45 years old. This structure was constructed in 1967.
- Area: 19,110 SF of deck

- Site Name: Structure B-40-182, IH 94 westbound-IH 43 northbound over the Kinnickinnic River
- Site Address: Lat. 425942, Long. 875454, Section 08, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 45 years old. This structure was constructed in 1967.
- Area: 19,110 SF of deck

- Site Name: Structure B-40-183, IH 94 eastbound-IH 43-southbound over Oklahoma Avenue
- Site Address: Lat. 425920.5, Long. 875452.48, Section 08, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 45 years old. This structure was constructed in 1967.
- Area: 83,138 SF of deck

- Site Name: Structure B-40-184, IH 94 westbound-IH 43 northbound over Oklahoma Avenue
- Site Address: Lat. 425906.87, Long. 875453.41, Section 08, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 45 years old. This structure was constructed in 1967.
- Area: 100,848 SF of deck

- Site Name: Structure B-40-261, IH 94 eastbound-IH 43 southbound over W. Holt Avenue
- Site Address: Lat. 425854, Long. 875500, Section 17, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 47 years old. This structure was constructed in 1965.
- Area: 12,014 SF of deck

- Site Name: Structure B-40-262, IH 94 westbound-IH 43 northbound over W. Holt Avenue
- Site Address: Lat. 425854, Long. 875500, Section 17, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 47 years old. This structure was constructed in 1965.
- Area: 12,014 SF of deck

- Site Name: Structure B-40-285-22A, IH 94 eastbound-Mineral Street over Land
- Site Address: Lat. 430136, Long. 875524, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 9,741 SF of deck

- Site Name: Structure B-40-285-22B, IH 94 eastbound-Mineral Street over STH 59
- Site Address: Lat. 430136, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 9,415 SF of deck

- Site Name: Structure B-40-285-23A, Ramp Mineral Street-IH 94 westbound over Ramp STH 59-IH 94 westbound
- Site Address: Lat. 430136, Long. 875524, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 6,714 SF of deck

- Site Name: Structure B-40-285-23B, Ramp Mineral Street-IH 94 westbound over STH 59
- Site Address: Lat. 430136, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 6,663 SF of deck

- Site Name: Structure B-40-285-25A, IH 94 eastbound-IH 43 southbound over REF 025
- Site Address: Lat. 430124, Long. 875512, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 10,815 SF of deck

- Site Name: Structure B-40-285-25B, IH 94 eastbound-IH 43 southbound over STH 59
- Site Address: Lat. 430124, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 14,029 SF of deck

- Site Name: Structure B-40-285-25C, IH 94 westbound-IH 43 northbound over REF 025
- Site Address: Lat. 430124, Long. 875512, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 12,408 SF of deck

- Site Name: Structure B-40-285-25D, IH 94 westbound-IH 43 northbound over STH 59
- Site Address: Lat. 430124, Long. 875512, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 15,291 SF of deck

- Site Name: Structure B-40-285-27A, IH 94 westbound-IH 43 northbound over W. Pierce Street
- Site Address: Lat. 430130, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 30,787 SF of deck

- Site Name: Structure B-40-285-27B, IH 94 94 eastbound-IH 43 southbound over W. Pierce Street
- Site Address: Lat. 430130, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 27,649 SF of deck

- Site Name: Structure B-40-285-27C, IH 94 westbound-IH 43 northbound over W. Bruce Street
- Site Address: Lat. 430130, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 36,444 SF of deck

- Site Name: Structure B-40-285-27D, IH 94 eastbound-IH 43 southbound over W. Bruce Street
- Site Address: Lat. 430130, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 31,121 SF of deck

- Site Name: Structure B-40-285-27E-1, IH 94 westbound-IH 43 northbound over Burnhams Canal
- Site Address: Lat. 430136, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 36,779 SF of deck

- Site Name: Structure B-40-285-27E-2, IH 94 94 westbound-IH 43 northbound over Menomonee Canal
- Site Address: Lat. 430136, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 35,043 SF of deck

- Site Name: Structure B-40-285-27F-1, IH 94 eastbound-IH 43 southbound over Burnhams Canal
- Site Address: Lat. 430136, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 38,387 SF of deck

- Site Name: Structure B-40-285-27F-2, IH 94 eastbound-IH 43 southbound over Menomonee Canal
- Site Address: Lat. 430142, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 35,043 SF of deck

- Site Name: Structure B-40-285-27G, IH 94 westbound-IH 43 northbound over Land
- Site Address: Lat. 430142, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 39,480 SF of deck

- Site Name: Structure B-40-285-27H, IH 94 eastbound-IH 43 southbound over Land
- Site Address: Lat. 430142, Long. 875524, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 39,480 SF of deck

- Site Name: Structure B-40-285-27I, IH 94 westbound-IH 43 northbound over Canal Street
- Site Address: Lat. 430154, Long. 875524, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 48,353 SF of deck

- Site Name: Structure B-40-285-27J, IH 94 43 southbound-IH 94 eastbound over Canal Street
- Site Address: Lat. 430142, Long. 875518, Section 29, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 48,353 SF of deck

- Site Name: Structure B-40-286-24A, IH 94 eastbound-IH 43 southbound over STH 38 – W. Washington Street
- Site Address: Lat. 430112, Long. 875506, Section 32, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 24,494 SF of deck

- Site Name: Structure B-40-286-24B, IH 94 westbound-IH 43 northbound over STH 38 – W. Washington Street
- Site Address: Lat. 430112, Long. 875506, Section 32, Town 07N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 44 years old. This structure was constructed in 1968.
- Area: 27,306 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 in accordance to standard spec 107.24. Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

107-125 (20120615)

15. Notice to Contractor, Asbestos Containing Materials on Structure.

John Roelke, License Number AII-119523, inspected Structures B-40-170, B-40-171, B-40-172, B-40-173, B-40-174, B-40-177, B-40-178, B-40-180, and B-40-265 for asbestos on August 9 and 27, 2012. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: the gaskets located underneath the plates where the guardrail attaches to the concrete parapet.

A copy of the inspection report is available from: Allen Gilbertson at (262) 548-8817. Locations of asbestos containing material are noted on the plan set. Do not disturb any asbestos containing material. Should asbestos containing material be disturbed, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at (608) 266-1476 for an emergency response in accordance to standard spec 107.24. Keep material wet until it is abated.

107-120 (20120615)

16. Protection of Workers.

For purposes of this contract, all spent materials from paint removal operations shall be handled and managed as "hazardous". In this regard, the contractor's attention is directed to standard spec 107.1 of Laws to be Observed, and as follows:

Provide and require all employees to wear all personal protective equipment required for the environment to which the workers are subjected and provide medical monitoring as required for those employees in the work area. This area includes, but is not limited to air supplied respirators, eye protection, ear protection, fall protection, protective clothing and

other such items. Provide means and methods for the decontamination of workers and authorized personnel in the work area so that no lead contamination leaves the work area on the bodies or clothing of those persons.

17. Project Site Air Quality.

Because fine particulate matter levels for Milwaukee, Racine and Kenosha Counties are typically close to $PM_{2.5}$ limits and the project is in a non-attainment area for the federal 8-hour ozone standard, contributions from construction activities can have a major impact well beyond the project limits. Take practical measures to mitigate the impact of operating construction equipment on the air quality in and around the project site.

Do not burn diesel fuel with a sulfur content exceeding 500 ppm (0.05% by weight) within the project limits. Red dyed diesel fuels marketed for off-road use frequently will not meet this requirement. If burning dyed fuel, ensure that the sulfur content meets this requirement.

The department encourages the contractor to voluntarily establish staging zones for trucks waiting to load and unload. Locate staging zones where idling of diesel powered equipment will have minimal impact on abutting properties and the general public. The department will make signs available to the contractor to help identify these zones. Have truckers queue up in these zones whenever it is practical. The department further encourages drivers to shut down diesel trucks as soon as it appears likely that they will be queued up for more than 15 minutes. Notify employees and sub-contractors about fueling and engine idling.

The department also encourages the contractor to locate stationary diesel powered equipment to minimize the impact of diesel emissions on abutting properties and the general public. The department further encourages the contractor to shut down stationary diesel powered equipment when not in use for extended periods.

18. Erosion Control.

Perform the work under this item in accordance to the requirements of standard spec 107.20 and supplemented as follows:

Take adequate precautions to install and maintain necessary erosion and sediment control during grading and construction operations at curbs and gutters, and at other locations as determined by the engineer. Protect storm drain inlets and manholes at locations determined by the engineer with a filter fabric meeting accepted design criteria, standards, and specifications. The erosion control items shown on the plans are at suggested locations. The engineer may modify locations as needed. Maintain all erosion control measures until such time as the engineer determines the measures are no longer necessary.

Topsoil graded areas, as designated by the engineer, immediately after grading has been completed within those areas. Sod and fertilize all topsoiled areas within 7 business days after placement of topsoil.

Place stockpiled spoil material on an upland site an adequate distance from wetland and any open water areas. Install silt fence between the spoil pile and excavation site and between any undisturbed area and waterway. Retopsoil the open grade area, as designated by the engineer, immediately after grading is completed within those areas. Seed, mulch and place erosion mat on all topsoiled areas within ten working days after placement of the topsoil. Leave the silt fence in place until the seeded area has produced sufficient grass cover to stabilize the area and thereby reduce the danger of site erosion.

Provide the erosion control implementation plan (ECIP) 14 days prior to the preconstruction meeting.

Minimize all dust emissions resulting from land disturbing activities under the contract to the maximum extent practicable. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. The contractor has direct responsibility for controlling dust at all times throughout the duration of the contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays. The department will measure the various bid items associated with dust control as specified in the applicable measurement subsections of either the standard specifications or other contract special provisions including, but not limited to, the Pavement Cleanup bid item.

19. Hydro-demolition.

Supplement standard spec 203.3.2.2 and 509.3.3 to include the following:

At the engineer's option, hydro-demolition equipment meeting the following requirements may be used. The equipment shall consist of filtering and pumping units operating with a remote controlled robotic device. The equipment shall be capable of removing concrete to the specified depth and of removing rust and concrete particles from exposed reinforcing bars. Operation of the hydro-demolition equipment shall be

performed and supervised by qualified personnel certified by the equipment manufacturer. Present evidence of certification to the engineer. When partial-depth removal is required, calibrate and set the equipment to remove sound concrete to the required depth. If sound concrete is being removed below the required depth, the engineer will require the equipment to be recalibrated and reset.

Control the runoff water generated by the various construction activities in such a manner as to minimize, to the maximum extent practicable, the discharge of construction debris into adjacent waters, and properly dispose of the solids generated according to standard specifications. Do not allow runoff water to constitute a hazard on adjacent or underlying roadways, waterways, drainage areas, or railroads, nor be allowed to erode existing slopes.

20. Hauling Restrictions.

Do not haul materials of any kind on any local roads without approval of the local Maintaining Authority and the department. Provide any proposals to haul on local roads with a written agreement between the contractor and the respective Maintaining Authority. Submit a letter to the department from the Maintaining Authority in agreement to the hauling prior to hauling. Contact the respective Maintaining Authority prior to bidding for approval of haul routes.

At all times, conduct operations in a manner that will cause a minimum of disruption to traffic on existing roadways.

This provision does not reduce or eliminate the contractor responsibility from restoring local roads under the item maintenance and repair of haul roads.

21. Weekly Meetings with Project Personnel.

Every Wednesday by 10:00 AM, submit a detailed proposed two-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed two-week look-ahead closure schedule into an Excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general two-month look-ahead closure information into the Excel spreadsheet.

Meet with the engineer between 11:00 AM - 11:30 AM on Wednesdays to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed two-week look ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon between the contractor and engineer during the 11:00 AM meeting. Upon editing, deleting and adding closures to the proposed schedule due to discussion from the 11:00 AM meeting, e-mail the detailed proposed two-week look-ahead closure schedule to the project's list of stakeholders, including the Statewide Traffic Operations Center as provided by the engineer.

Every Thursday at 2:00 PM, or as scheduled by the engineer, attend a weekly traffic meeting. The meeting will bring local agencies, project stakeholders, owner managers, owner engineers, contractors, document control and construction engineering personnel together to discuss traffic staging, closures and general impacts. Upon obtaining feedback from the meeting attendees, edit, delete and add information to the detailed two-week look-ahead closure schedule, as needed. Submit the revised two-week look-ahead closure schedule to the engineer.

Obtain approval from the engineer for any mid-week changes to the closure schedule. Revise the two-week look-ahead closure schedule as required and obtain engineer approval.

Include in the contractor's weekly schedule of operations for all actual and anticipated work roadway, lane and ramp closures for the upcoming week beginning on Sunday, 12:01 AM and ending on Saturday, 11:59 PM. The department will review this information. Modifications to this schedule will be accepted until no later than noon on Thursdays. The department's public information personnel will provide the final weekly schedule information to the local media on each Friday at 9:00 AM.

22. Abatement of Asbestos Containing Material B-40-260, Item 203.0210.S.01; B-40-263, Item 203.0210.S.02.

A Description

This special provision describes abating asbestos containing material on structures in accordance to the plans, the pertinent provisions of the standard specifications, and as hereinafter provided.

B (Vacant)

C Construction

John Roelke, License Number AII-119523, inspected Structures B-40-260 and B-40-263 for asbestos on August 9 and 27, 2012. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: the gaskets located underneath the plates where the guardrail attaches to the concrete parapet.

The RACM on this structure must be abated by a licensed abatement contractor. A copy of the inspection report is available from Allen Gilbertson at (262) 548-8817. In accordance 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 and the abatement report to Allen Gilbertson at (262) 548-8817 and DOT BTS-ESS Attn: Hazardous Materials Specialist PO Box 7965, Madison, WI. 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-40-260, Ramp IH 94 eastbound-Holt Ave eastbound over W. Holt Avenue
- Site Address: Lat. 425854, Long. 875500, Section 17, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 47 years old. This structure was constructed in 1965.
- Area: 4,754 SF of deck

- Site Name: Structure B-40-263, Northbound Collector Rd over W. Holt Avenue
- Site Address: Lat. 425855, Long. 875458.03, Section 17, Town 06N, Range 22E, City of Milwaukee.
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187-0798
- Contact: Allen Gilbertson
- Phone: (262) 548-8817
- Age: 46 years old. This structure was constructed in 1966.
- Area: 5,174 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 in accordance to standard spec 107.24. Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

D Measurement

The department will measure Abatement of Asbestos Containing Material (Structure), completed in accordance to the contract and accepted, as a 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
203.0210.S.01	Abatement of Asbestos Containing Material Structure B-40-260	LS
203.0210.S.02	Abatement of Asbestos Containing Material Structure B-40-263	LS

Payment is full compensation for submitting necessary forms; removing all asbestos; and for properly disposing of all waste materials.

203-005 (20120615)

23. Removing Noise Barrier, Item 204.9090.S.01; Modular Wall, Item 204.9090.S02.

A Description
Remove noise barriers in accordance to the pertinent provisions of standard spec 204 of the standard specifications and as hereinafter provided.

B (Vacant)

C Construction
Construct the proposed noise barriers to a minimum of 50% of the finished height shown in the plans within 30 days of removal of the adjacent existing noise barrier

D Measurement
The department will measure Removing Noise Barrier and Removing Modular Wall in length by the linear foot, acceptably completed.

E Payment
Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Noise Barrier	LF
204.9090.S.02	Removing Modular Wall	LF

Payment is full compensation for removing, hauling and disposing of noise barriers, and foundation.
204-025 (20041005)

24. QMP Base Aggregate.

A Description
A.1 General

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

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

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

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
1. Production and placement control and inspection.
2. Material sampling and testing.

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

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

A.2 Contractor Testing for Small Quantities

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

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
2. Divide the aggregate into uniformly sized sublots for testing as follows:

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

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

[2] For 3-inch material, obtain samples at load-out.

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

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

(3) Material represented by a 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.

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:
Aggregate Technician IPP Aggregate Sampling Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling[1]
Aggregate Technician IPP 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://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

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

B.4.3 Control Charts

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

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

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

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

B.5 Contractor Testing

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

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

(3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

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

(5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.

(6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

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

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

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.
2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

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

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

B.6.3 Liquid Limit and Plasticity

(1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.

(2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

(1) Do not blend additional material on the roadbed to correct gradation problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When 2 consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
   1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
   2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
   1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
   2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
   3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

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

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
   1. One non-random test on the first day of placement.
   2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

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

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

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

B.8.3 Independent Assurance

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

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

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

B.9 Dispute Resolution

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

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

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

C (Vacant)

D (Vacant)

E Payment

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

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

301-010 (20100709)

25. QMP Ride; Incentive IRI Ride, Item 440.4410.S.

A Description

(1) This special provision describes profiling pavements with a non-contact profiler, locating areas of localized roughness, and determining the International Roughness Index (IRI) for each wheel path segment.

(2) Profile the final riding surface of all mainline pavements, bridges, approaches, and railroad crossings. Roundabouts, and pavements within 150 feet of the points of curvature of roundabout intersections, are excluded from the testing requirements of this provision.

(3) Pavements that are excluded from localized roughness according to C.5.2(1), bridges, and roundabout intersections are subject to engineer-directed straightedging according to the standard specifications. All other surfaces being tested under this provision are exempt from straightedging requirements.

B (Vacant)

C Construction

C.1 Quality Control Plan

(1) Submit a written quality control plan to the engineer at or before the pre-construction conference. 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 all quality control personnel.
2. The process by which quality control information and corrective action efforts will be disseminated to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. The methods and timing used for monitoring and/or testing ride quality throughout the paving process.
4. The evaluation process that will be used to make improvements to the construction operations if poor ride quality is found during the process control testing.
5. The methods that will be used to ensure a smooth pavement transition when matching into existing surfaces such as bridges, bridge approaches, or railroad crossings.
6. The segment locations of each profile run used for acceptance testing.
7. The approximate timing of acceptance testing in relation to the paving operations.

C.2 Personnel

(1) Have a profiler operator, certified under the department's highway technician certification program (HTCP), operate the equipment, collect the required data, and document the results using the methods taught in the HTCP profiling course.

C.3 Equipment

(1) Furnish a profile-measuring device capable of measuring IRI from the list of department-approved devices published on the department's web site:

http://roadwaystandards.dot.wi.gov/standards/qmp/index.htm

(2) Unless the engineer and contractor mutually agree otherwise, arrange to have a calibrated profiler available when paving the final riding surface. Calibrate the profiler according to the manufacturer's recommendations. Provide the engineer with a copy of the most recent calibration results, signed by the certified profiler operator.

(3) Perform daily calibration verification of the profiler using test methods according to the manufacturer's recommendations. Notify the engineer prior to performing the calibration verification. If the engineer requests, arrange to have the engineer observe the calibration verification and operation. Maintain records of the calibration verification activities, and provide the records to the engineer upon request.

C.4 Testing

C.4.1 Run and Reduction Parameters

(1) Enter the equipment-specific department-approved filter settings and parameters listed on the department's ride web site.

C.4.2 Contractor Testing

(1) Operate profilers within the manufacturer's recommended speed tolerances. Perform all profile runs in the direction of travel. Measure the longitudinal profile of each wheel track of each lane. The wheel tracks are 6.0 feet apart and centered in the traveled way of the lane.

(2) Coordinate with the engineer to schedule profile runs for acceptance. The department may require testing to accommodate staged construction or if corrective action may be required.

(3) Measure the profiles of each standard or partial segment. Define primary segments starting at a project terminus and running contiguously along the mainline to the other project terminus. Field-locate the beginning and ending points for each profile run. When applicable, align segment limits with the sublot limits used for testing under the QMP Concrete Pavement specification. Define segments one wheel path wide and distinguished by length as follows:

1. Standard segments are 500 feet long.
2. Partial segments are less than 500 feet long.

(4) Treat partial segments as independent segments.

(5) The department will categorize each standard or partial segment as follows:

Segments with a Posted Speed Limit of 55 MPH or Greater	
Category	**Description**
HMA I	Asphalt pavement with multiple opportunities to achieve a smooth ride. The following operations performed under this contract are considered as opportunities: a layer of HMA, a leveling or wedging layer of HMA, and diamond grinding or milling of the underlying pavement surface.
HMA II	Asphalt pavement with a single opportunity to achieve a smooth ride.
HMA III	Asphalt pavement segments containing any portion of a bridge, bridge approach, railroad crossing, or intersection. An intersection is defined as the area within the points of curvature of the intersection radii.
PCC II	Concrete pavement including all gaps.
PCC III	Concrete pavement segments containing any portion of a bridge, bridge approach, railroad crossing, or intersection. An intersection is defined as the area within the points of curvature of the intersection radii.

Segments with Any Portion Having a Posted Speed Limit Less Than 55 MPH	
Category	**Description**
HMA IV	Asphalt pavement including intersections, bridges, approaches, and railroad crossings.
PCC IV	Concrete pavement including gaps, intersections, bridges, approaches, and railroad crossings.

C.4.3 Verification Testing

(1) The department may conduct verification testing (QV) to validate the quality of the product. A certified HTCP profiler technician will perform the QV testing. The department will provide the contractor with a listing of the names and telephone numbers of all verification personnel for the project.

(2) The department will notify the contractor before testing so the contractor can observe the QV testing. Verification testing will be performed independent of the contractor's QC work using separate equipment from the contractor's QC tests. The department will provide test results to the contractor within 1 business day after the department completes the testing.

(3) The engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's testing procedures and equipment. Both parties will document all investigative work.

(4) If the contractor does not respond to an engineer request to resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in C.6.

C.4.4 Documenting Profile Runs

(1) Compute the IRI for each segment and analyze areas of localized roughness using the ProVAL software. Within 5 business days after completing a final acceptance profile run, submit a copy of the ProVAL smoothness assurance report showing the IRI for each segment and the areas of localized roughness exceeding an IRI of 175 in/mile. The ProVAL software and department-specified inputs are available on the department's web site:

http://roadwaystandards.dot.wi.gov/standards/qmp/index.htm

(2) As part of the profiler software outputs and ProVAL reports, document the areas of localized roughness and the locations of individual features including construction joints, structure limits, design features, utility fixtures, and other features that might affect the department's evaluation of ride quality. Field-locate the areas of localized roughness prior to the engineer's assessment for corrective actions.

(3) Within 5 business days after completing profiling of the pavement covered under this special provision, unless the engineer and contractor mutually agree to a different timeline, submit the electronic ProVAL project file containing the .ERD files for each

profiler acceptance run. Submit profile data using the department's Materials Reporting System (MRS) software available on the department's web site:

http://www.atwoodsystems.com/mrs

C.5 Corrective Actions

C.5.1 General

(1) Correct the ride as the engineer directs. The department will independently assess whether a repair will help or hurt the long-term pavement performance and/or public perception of the ride before deciding on corrective action.

C.5.2 Corrective Actions for Localized Roughness

(1) Apply localized roughness requirements to all pavements, including HMA III, PCC III, HMA IV, and PCC IV; except localized roughness requirements will not be applied to pavements within 25 feet of the following surfaces if they are not constructed under this contract: bridges, bridge approaches, or railroad crossings. The department may direct the contractor to make corrections to the pavement within the 25-foot exclusionary zones and will compensate the contractor for the extra work.

(2) The engineer will review each individual wheel track for areas of localized roughness. The engineer will assess areas of localized roughness that exceed an IRI of 175 in/mile and do one of the following for each location:

1. Direct the contractor to correct the area to minimize the effect on the ride.
2. Leave the area of localized roughness in place with no pay reduction.
3. Except for HMA IV and PCC IV segments, assess a pay reduction as follows for each location in each wheel path:

Localized Roughness IRI (in/mile)	Pay Reduction[1] (dollars)
> 175	(Length in Feet) x (IRI – 175)

[1] A maximum $250 pay reduction may be assessed for locations of localized roughness that are less than or equal to 25 feet long. Locations longer than 25 feet may be assessed a maximum pay reduction of $10 per foot.

(3) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without independent identification of that area as determined by physically riding the pavement. For corrections, use only techniques the engineer approves.

(4) Re-profile corrected areas to verify that the IRI is less than 140 in/mile after correction. Submit a revised ProVAL smoothness assurance report for the corrected areas to validate the results.

C.5.3 Corrective Actions for Excessive IRI

(1) If an individual segment IRI exceeds 140 in/mile for HMA I, HMA II, and PCC II pavements after correction for localized roughness, the engineer may require the contractor to correct that segment. Correct the segment final surface as follows:

HMA I:	Correct to an IRI of 60 in/mile using whichever of the following methods the engineer directs: Mill and replace the full lane width of the riding surface excluding the paved shoulder. Correct the full lane width using techniques approved by the engineer.
HMA II:	Correct to an IRI of 85 in/mile using whichever of the following methods the engineer directs: Mill and replace the full lane width of the riding surface excluding the paved shoulder. Correct the full lane width using techniques approved by the engineer.
PCC II:	Correct to an IRI of 85 in/mile using whichever of the following methods the engineer directs: Continuous diamond grinding of the full lane width of the riding surface including adjustment of the paved shoulders Correct the full lane width using techniques approved by the engineer.

(2) Re-profile corrected segments to verify that the final IRI meets the above correction limits and there are no areas of localized roughness. Submit a revised ProVAL smoothness assurance report for the corrected areas to validate the results. Segments failing these criteria after correction are subject to the engineer's right to adjust pay for non-conforming work under standard spec 105.3.

C.6 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 testing procedures, and perform additional testing.

(2) If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming pavement, the department will use third party testing to resolve the dispute. The department's Quality Assurance Unit, or a mutually agreed on independent testing company, 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 tester. The department may use third party tests to evaluate the quality of questionable pavement and determine the appropriate payment.

D Measurement

(1) The department will measure Incentive IRI Ride by the dollar, adjusted as specified in E.2.

E Payment

E.1 Payment for Profiling

(1) Costs for furnishing and operating the profiler, documenting profile results, and correcting the final pavement surface are incidental to the contract.

E.2 Pay Adjustment

(1) The department will pay incentive for ride under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
440.4410.S	Incentive IRI Ride	DOL

(2) Incentive payment is not limited, either up or down, to the amount the schedule of items shows.

(3) The department will administer disincentives for ride under the Disincentive IRI Ride administrative item.

(4) The department will not assess disincentive on HMA III or PCC III segments. Incentive pay for HMA III and PCC III segments will be according to the requirements for the category of the adjoining segments.

(5) The department will adjust pay for each segment based on the initial IRI for that segment before any corrective action is taken. The department will base disincentives on the IRI after correction for pavement meeting the following conditions:

All Pavement:	The corrective work is performed in a contiguous, full lane width section 500 feet long, or a length as agreed with the engineer.
HMA Pavements:	The corrective work is a mill and inlay or full depth replacement and the inlay or replacement layer thickness conforms to standard spec 460.3.2.
Concrete Pavements:	The corrective work is a full depth replacement and conforms to standard spec 415.

(6) The department will adjust pay for 500-foot long standard segments nominally one wheel path wide using equation "QMP 1.03" as follows:

HMA I	
Initial IRI (inches/mile)	**Pay Adjustment[1] (dollars per standard segment)**
< 30	250
≥ 30 to <35	1750 – (50 x IRI)
≥ 35 to < 60	0
≥ 60 to < 75	1000 – (50/3 x IRI)
≥ 75	-250

HMA II and PCC II	
Initial IRI (inches/mile)	**Pay Adjustment[1] [2] (dollars per standard segment)**
< 50	250
≥ 50 to < 55	2750 – (50 x IRI)
≥ 55 to < 85	0
≥ 85 to < 100	(4250/3) – (50/3 x IRI)
≥ 100	-250

HMA IV and PCC IV	
Initial IRI (inches/mile)	**Pay Adjustment[1] [2] (dollars per standard segment)**
< 50	250
≥ 50 to < 75	750 – (10 x IRI)
≥ 75	0

[1] If the engineer directs placing upper layer asphaltic mixtures between October 15 and May 1 for department convenience as specified in standard spec 450.3.2.1(5), the department will not adjust pay for ride on pavement the department orders the contractor to place when the temperature, as defined in standard spec 450.3.2.1(2), is less than 36 F.

[2] If the engineer directs placing concrete pavement for department convenience, the department will not adjust pay for ride on pavement the department orders the contractor to place when the air temperature falls below 35 F.

(7) The department will prorate the pay adjustment for partial segments based on their length.

440-010 (20100709)

26. QMP HMA Pavement Nuclear Density.

A Description

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

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

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

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

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

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

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

http://www.atwoodsystems.com/mrs

B Materials

B.1 Personnel

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

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

B.2 Testing

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

B.3 Equipment

B.3.1 General

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

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

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

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

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

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

(2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft^3. Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft^3 and repeat correlation process from B.3.2.1 (2).

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

B.3.2.2 Correlation Monitoring

(1) After performing the gauge correlation specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.

(2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 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/ft^3 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/ft^3 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/ft^3, use the original QC tests for acceptance.

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

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

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

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

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV 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-correlated gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

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

E.3 Incentive for HMA Pavement Density

(1) Delete standard spec 460.5.2.3.

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

Percent Lot Density Above Minimum	Pay Adjustment Per Ton
From -0.4 to 1.0 inclusive	$0
From 1.1 to 1.8 inclusive	$0.40
More than 1.8	$0.80

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

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

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

460-020 (20100709)

27. Concrete Crack and Surface Sealing.

Delete standard spec 502.3.13.1(2) and replace it with the following:

(2) Prepare the deck by water blasting and apply crack sealer as the sealer manufacturer recommends except as follows:

1. The contractor need only wait 7 days after completing moist curing before sealing.
2. Seal only if drying conditions have existed for the preceding 48 hours.
3. Immediately before applying sealer, direct an air blast over the surface to remove all dust and any loose particles.
4. Opening structures to traffic after wet cure is completed is allowed prior to applying crack sealing and /or protective surface treatment.
5. Perform concrete crack and surface sealing during off peak and night time hours.

Delete standard spec 502.3.13.2(4) and replace it with the following:

(4) Complete surface sealing before suspending work for the winter. Perform surface sealing during off peak and night time hours. After sealer is applied, do not open bridge deck to traffic until the concrete sealer is dry enough to sustain traffic without causing damage to the surface treatment or creating a hazard to traffic.

28. Removing Bearings, B-40-261, Item 506.7050.S.01; B-40-262, Item 506.7050.S.02.

A Description
This special provision describes raising the girders and removing the existing bearings, as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction
Raise the structure's girders and remove the existing bearings as shown in the plans

Obtain prior approval from the engineer for the method of jacking the girders and of supporting them while the bearings are removed.

D Measurement
The department will measure Removing Bearings B-40-261 and B-40-262 by the unit for each bearing 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
506.7050.S.01	Removing Bearings, B-40-261	Each
506.7050.S.02	Removing Bearings, B-40-262	Each

Payment is full compensation for raising the bridge; removing the old bearings.

Cost of furnishing and installing the bearings will be paid for under separate bid items.
506-035 (20030820)

29. Concrete Masonry Overlay Decks.

Supplement standard spec 509.2 as follows:

For reinforced concrete overlays on structures, furnish concrete for Concrete Masonry Overlay bid items using a mix grade containing fly ash (A-FA), slag (A-S), both fly ash and slag (A-T) or blended cement (A-IP or A-IS) conforming to standard spec 501. Use course aggregate consisting entirely of size No.1.

Supplement standard spec 509.3.8.3 as follows:

For structures, cure reinforced concrete overlays as specified for curing concrete in floors, wearing surfaces and sidewalks in standard spec 502.3.8, including fogging, and allow to cure for 7 days.

30. Polymer Overlay, Item 509.5100.S.

A Description

This special provision describes furnishing and applying two layers of a two-component polymer overlay system to the bridge decks shown on the plans. The total thickness of the overlay system shall be 3/8”.

B Materials

B.1 General

Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders from the department’s approved product list.

B.2 Polymer Resin

The polymer resin base and hardener shall be composed of two-component, 100% solids, 100% reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time [A]	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity [A]	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness [B]	60-75	ASTM D2240
Absorption [B]	1% maximum at 24 hr	ASTM D570
Tensile Elongation [B]	30% - 70% @ 7 days	ASTM D638
Tensile Strength [B]	>2000 psi @ 7 days	ASTM D638
Flexural Strength [B]	>4500 psi @ 7 days	ASTM D790
ChloridePermeability [B]	<100 coulombs @ 28 days	AASHTO T277

[A] Uncured, mixed polymer binder
[B] Cured, mixed polymer binder

B.3 Aggregates

Furnish natural or synthetic aggregates that have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing, clean, free of surface moisture, fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and meet the following properties and gradation requirements:

Aggregate Properties:

Property	Requirement	Test Method
Moisture Content	≤0.2%	ASTM C566
Hardness	≥6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face and 80% with at least 2 fractured faces of material retained on No.16	ASTM 5821

Gradation:

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

B.4 Required Properties of Overlay System

The required properties of the overlay system are listed in the table below:

Property	Requirement [A]	Test Method
Minimum Compressive Strength at 8 Hrs. (psi)	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C 579 Method B, Modified [B]
Thermal Compatibility	No Delaminations	ASTM C 884
Minimum Pull-off Strength	250 psi @ 24 hrs	ACI 503R, Appendix A

[A] Based on samples cured or aged and tested at 75°F

[B] Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

B.5 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days prior to application, submit product data sheets and specifications from the manufacturer, and a certified test report to the engineer for approval. The engineer may request samples of the polymer and/or aggregate, prior to application, for the purpose of acceptance testing by the department.

For materials not pre-qualified, in addition to the above submittals, submit product history/reference projects and a certified test report from an independent testing laboratory showing compliance with the requirements of the specification.

The product history/reference projects consist of a minimum of 5 bridge/roadway locations where the proposed overlay system has been applied in Wisconsin or in locations with a similar climate - include contact names for the facility owner, current phone number or e-mail address, and a brief description of the project.

Product data sheets and specifications from the manufacture consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

C Construction

C.1 General

Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer’s instructions. The manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly.

Store resin materials in their original containers in a dry area. Store and handle materials according to the manufacturer's recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

C.2 Deck Preparation

C.2.1. Deck Repair

Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to repair the concrete deck will be paid for under the item for deck patching. Ensure that products used for deck patching are compatible with the polymer overlay system.

NOTE: Some polymer systems require concrete patch material to be in place a minimum of 28-days before overlaying - contact polymer manufacturer before completing deck patching/repair.

C.2.2 Surface Preparation

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface a profile meeting CSP 5 according to the International Concrete Repair Institute Technical Guideline No. 03732. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ACI 503R, Appendix A of the ACI *Manual of Concrete Practice*. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of ¼ inches or more is greater than 50% of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application of the overlay system.

Just prior to overlay placement, clean all dust, debris, and concrete fines from the deck surface including vertical faces of curbs and barrier walls up to a height of 1 inch above the overlay with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely.

Cover the bridge deck drains and bridge expansion joints to prevent materials from adhering and entering.

Create a transitional area approaching transverse expansion joints and ends of the deck using the shotblasting machine or other approved method. Remove 5/16" to 3/8" of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

The engineer may consider alternate surface preparation methods per the overlay system manufacture's recommendations. The engineer will approve the final surface profile and deck cleanliness prior to the contractor placing the polymer overlay.

C.3 Application of the Overlay

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the overlay system if any of the following exists:

- Ambient air temperature is below 50°F;
- Deck temperature is below 50°F;
- Moisture content in the deck exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance to ASTM D4263;
- Rain is forecasted during the minimum curing periods listed under C.5;
- Materials component temperatures below 50°F;
- Concrete age is less than 28 days unless approved by the engineer.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a standard chip spreader or equivalent machine that can provide a uniform, consistent coverage of aggregate. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place, but will require additional applications before opening to traffic.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times listed under C.5 or as prescribed by the manufacturer. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay system before opening the area to traffic. Do not allow traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Prior to applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Prior to opening to traffic, clean expansion joints and joint seals of all debris and polymer. If required by the engineer, a minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

C.4 Application Rates

Apply the polymer overlay in two separate courses in accordance to the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate [A] (GAL/100 SF)	Aggregate [B] (LBS/SY)
1	2.5	10+
2	5.0	14+

[A] The minimum total applications rate is 7.5 GAL/100 SF.

[B] Application of aggregate shall be of sufficient quantity to completely cover the polymer.

C.5 Minimum Curing Periods

As a minimum, cure the coating as follows:

	Average temperature of deck, polymer and aggregate components in °F					
Course	**60-64**	**65-69**	**70-74**	**75-79**	**80-84**	**85+**
1	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2 *	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

*Cure course 2 for 8 hours if the air temperature drops below 60° F during the curing period.

D Measurement

The department will measure Polymer Overlay in area by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.5100.S	Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials. Concrete Deck Repair will be paid for separately.

509-030 (20120615)

31. Epoxy Crack Sealing, Item 509.9020.S.

A Description
Seal vertical cracks according to the plan details and as hereinafter provided.

B Materials
Furnish a penetrating epoxy sealant manufactured by Sika, Adhesive Engineering, Technical Sealants, Dayton Superior, or equal. Before using, obtain the engineer's approval for the epoxy system which is proposed to seal the cracks.

C Construction
Before sealing, clean the cracks by chipping and by using high-pressure air.

After all of the cleaning is completed, inject epoxy sealant into the cracks to be sealed. Seal the cracks using the penetrating epoxy sealant as recommended by the sealant manufacturer.

D Measurement
The department will measure Epoxy Crack Sealing in length by the linear foot of crack, acceptably sealed.

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9020.S	Epoxy Crack Sealing	LF

Payment is full compensation for cleaning the cracks; and for furnishing and placing the epoxy sealant.
509-020 (20100709)

32. Structure Repainting General.

A General
A.1 Inspection
On all structures in this contract, notify the engineer of any missing or broken bolts or nuts, any missing or broken rivets, or of any cracks or flaws in the steel members while cleaning or painting.

A.2 Date Painted
At the completion of all painting work, stencil in black paint or contrasting color paint the date of painting the bridge. The numbers shall be three inches (75 mm) in height and shall show the month and year in which the painting was completed: e.g., 11-95 (November 1995). On each bridge painted, stencil the date at two locations. On truss bridges, stencil the date on the cover plates of end posts near and above the top of the railings at the oncoming traffic end. On steel girder bridges, stencil the date on the inside of the outside stringers at the abutments. The date on grade separation bridges shall be readable when

going under the structure or at some equally visible surface near the ends of the bridge, as designated by the engineer.

A.3 Graffiti Removal
Remove any graffiti on concrete abutments, piers, pier caps, parapet railings, slope paving or any other location at the direction of the engineer. Use a brush sandblast to remove graffiti.

The above work will not be measured and paid for separately, but will be considered incidental to other items in the contract.

B (Vacant)

C Construction
C.1 Repainting Methods
Do not perform blasting, cleaning and painting on days of high winds. Prevailing winds in excess of 15 mph (25 km/hr) shall be considered high winds.

Prior to final acceptance, completely clean and free from spent abrasive and other waste materials resulting from the contractor's operation the bridge deck surfaces, gutter lines, drains, curbs, bridge seats, pier caps, slope paving, roadway below, and all structural members and assemblies.

Place the final field coat of paint on the exterior of the exterior beams as a continuous painting operation. Stop at splices, vertical stiffeners or other appropriate locations so that lap marks are not evident or noticeable.

C.2 Inspection
Supplement standard spec 105.9 as follows:

Furnish, erect and move scaffolding and other appropriate equipment to permit the inspector the opportunity to closely observe all affected surfaces. The scaffolding, with appropriate safety devices, shall meet the approval of the engineer.
517-005 (20030820)

33. Structure Overcoating Cleaning and Priming B-40-183, Item 517.3000.S.01; B-40-184, Item 517.3000.S.02.

A Description
This special provision describes cleaning and painting with two or three coats of paint the metal surfaces as hereinafter provided.

A.1 Areas to be Cleaned and Painted
Structure B-40-183
Three Coat Area: 28,279 SF with SP 11 cleaning.

Structure B-40-184
Three Coat Area: 30,153 SF with SP 11 cleaning.

B (Vacant)

C Construction

C.1 Surface Preparation

Prior to overcoating or power tool cleaning, solvent clean all surfaces to be coated in accordance to SSPC-SP1. A SSPC-SP 11 power Tool Cleaning according to Steel Structures Painting Council Specification 11 will be required on all metal surfaces to be painted with a three-coat system. Prime the same day, or re-clean before application, all metal surfaces receiving a No. 11 cleaning.

Remove all abrasive or paint residue from steel surfaces with a High Efficiency Particulate Abatement (HEPA-VAC) vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If the double blowing method is used, vacuum the exposed top surfaces of all structural steel, including flanges, longitudinal stiffeners, splices, plates, and hangers, after the double blowing operations are completed. The air line used for blowing the steel clean shall have an inline water trap and the air shall be free of oil and water as it leaves the air line.

Take care to protect freshly coated surfaces from subsequent cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool. Clean and re-prime the brushed surfaces within the time recommended by the manufacturer.

C.2 Painting

Paint by applying two or three coats of an approved coating system as specified herein to the surfaces as described in A.1 from the department's approved products list.

C.3 Coating Application

Apply paint in a neat, workmanlike manner. The resultant paint film shall be smooth and uniform without skips or areas of excessive paint. Apply coating in accordance to the manufacturer's recommendations.

Prior to applying the prime coat, coat with primer all edges, rivet and bolt heads, nuts and washers by using either a brush, roller, or spray application.

Dry Film Thickness per coat shall be a minimum of 3-mil. The dry film thickness shall be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement in accordance to SSPC-PA 2.

During surface preparation and coating application, the ambient and steel temperature shall be between 39 and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature, and the relative humidity shall not exceed 85%.

D Measurement

The department will measure Structure Overcoating Cleaning and Priming (Structure), completed in accordance 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
517.3000.S.01	Structure Overcoating Cleaning and Priming B-40-183	LS
517.3000.S.02	Structure Overcoating Cleaning and Priming B-40-184	LS

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

517-036 (20080501)

34. Structure Repainting Recycled Abrasive B-40-174, Item 517.1800.S.04; B-40-175, Item 517.1800.S.05; B-40-176, Item 517.1800.S.06; B-40-177, Item 517.1800.S.07; B-40-180, Item 517.1800.S.09; B-40-181, Item 517.1800.S.10; B-40-182, Item 517.1800.S.11; B-40-183, Item 517.1800.S.12; B-40-184, Item 517.1800.S.13; B-40-286-24C, Item 517.1800.S.16; B-40-286-24D, Item 517.1800.S.17; B-40-286-21, Item 517.1800.S.18; B-40-286-26, Item 517.1800.S.19.

A Description

This special provision describes surface preparation and painting of the metal surfaces in accordance to the manufacturer's recommendations and as hereinafter provided.

A.1 Areas to be Cleaned and Painted

All structural metal surfaces of:

1. Structure B-40-174 36,972 SF
2. Structure B-40-175 74,049 SF
3. Structure B-40-176 92,502 SF
4. Structure B-40-177 49,523 SF
5. Structure B-40-180 52,739 SF
6. Structure B-40-181 31,172 SF
7. Structure B-40-182 31,172 SF
8. Structure B-40-183 126,774 SF
9. Structure B-40-184 158,917 SF
8. Structure B-40-286-21 11,626 SF
9. Structure B-40-286-24C 34,868 SF
10. Structure B-40-286-24D 41,671 SF
11. Structure B-40-286-26 1,994 SF

Areas are approximate and given for informational purposes only.

B Materials

B.1 Coating System

Furnish a complete coating system from the department's approved list. The color for the finish coating material shall match the color number shown below in accordance to Federal Standard Number 595B, as printed in 1989. Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, and the minimum drying time between coats.

Finish Color: Denim (Blue) – SW6523, B-G/B/138.

The color of the primer must be such that a definite contrast between it and the color of the blasted steel is readily apparent. There shall be a color contrast between all subsequent coats for the paint system selected. Submit color samples of the primer to the engineer for approval.

C Construction

C.1 Surface Preparation

Prior to blast cleaning, solvent clean all surfaces to be coated in accordance to SSPC-SP1. A No. 10 Near White Blast Cleaning according to Steel Structures Painting Council Specification Ten will be required on all metal surfaces to be painted. Prime the same day all metal surfaces receiving a No. 10 blast or re-blast before application.

The steel grit and any associated equipment brought to the site and used for blast cleaning shall be clean. Remove immediately dirty grit or equipment brought to the site at no expense to the department. Furnish an abrasive that has a gradation such that it will produce a uniform surface profile between 1 to 3 mils on the steel surface, as measured with extra profile course Testex Replica Tape. Use a minimum air pressure for abrasive blasting, measured at the nozzle, of 90 psi.

The abrasive blasting and recovery system shall be a completely integrated self-contained system for abrasive blasting and recovery. It shall be an open blast and recovery system that will allow no emissions from the recovery operation. The recovery equipment shall be such that the amount of contaminants in the clean recycled steel grit shall be less than 1 percent by weight.

Remove by grinding all fins, tears, slivers, and burred or sharp edges that are present on any steel member, or that appear during the blasting operation, and re-blast the area to give a 1 to 3 mils surface profile.

Remove all spent material and paint residue from steel surfaces with a good commercial grade vacuum cleaner equipped with a brush-type cleaning tool, and hand wipe the steel surfaces with a clean soft cloth. The airline used for surface preparation shall have an in-line water trap and the air shall be free of oil and water as it leaves the airline.

Take care to protect freshly coated surfaces from subsequent blast cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean and re-prime the brushed or blast cleaned surfaces within the time recommended by the manufacturer.

C.2 Coating Application

Apply paint in accordance to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray.

The engineer may allow the use of conventional spray equipment after satisfactory demonstration by the contractor of the proper technique and handling of that equipment.

Mix the paint or coatings in accordance to the manufacturer's directions to a smooth lump-free consistency. After mixing and during application, continuously stir the paint or coating under constant slow speed agitation by use of a jiffy mixer.

Prior to applying the prime coat, stripe with primer all edges, rivet and bolt heads, nuts and washers by either brush or spray application.

Remove all dry spray by vacuuming, wiping, or sanding if necessary.

If the application of the coating at the required thickness in one coat produces runs, bubbles, or sags; apply a "mist-coating" in multiple passes of the spray gun; separate the passes by several minutes. Where excessive coating thickness produces "mud-cracking", remove such coating back to soundly bonded coating and re-coat the area to the required thickness.

The resultant paint film shall be smooth and uniform, without skips or areas of excessive paint.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin in accordance to the manufacturer's recommendations.

During surface preparation and coating application the ambient and steel temperature shall be between 39 degrees F and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature. (This requires the steel to be dry and free of any condensation or ice regardless of the actual temperature of the steel.) The relative humidity shall not exceed 85%.

Paint thickness shall be as follows:

	Dry Film Thickness
Prime Coat	3 mils min.
Intermediate Coat	3 mils
Top Coat	3 mils

Time to recoat shall be according to the manufacturer's recommendations.

The dry film thickness will be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement in accordance to SSPC-PA 2. Dry film thickness in each area measured will be based on an average of three gage readings, after calibration of the gage to account for surface profile of the bare steel as a result of surface preparation.

D Measurement

The department will measure Structure Repainting Recycled Abrasive (Structure), completed in accordance to the contract and accepted, as a 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
517.1800.S.04	Structure Repainting Recycled Abrasive B-40-174	LS
517.1800.S.05	Structure Repainting Recycled Abrasive B-40-175	LS
517.1800.S.06	Structure Repainting Recycled Abrasive B-40-176	LS
517.1800.S.07	Structure Repainting Recycled Abrasive B-40-177	LS
517.1800.S.09	Structure Repainting Recycled Abrasive B-40-180	LS
517.1800.S.10	Structure Repainting Recycled Abrasive B-40-181	LS
517.1800.S.11	Structure Repainting Recycled Abrasive B-40-182	LS
517.1800.S.12	Structure Repainting Recycled Abrasive B-40-183	LS
517.1800.S.13	Structure Repainting Recycled Abrasive B-40-184	LS
517.1800.S.16	Structure Repainting Recycled Abrasive B-40-286-24C	LS
517.1800.S.17	Structure Repainting Recycled Abrasive B-40-286-24D	LS
517.1800.S.18	Structure Repainting Recycled Abrasive B-40-286-21	LS
517.1800.S.19	Structure Repainting Recycled Abrasive B-40-286-26	LS

Payment is full compensation for preparing and cleaning the designated surfaces; furnishing and applying the paint; and for providing the listed equipment.
517-050 (20050502)

35. Labeling and Disposal of Waste Material.

The department will be obtaining the EPA permit for Structures B-40-174, B-40-175, B-40-176, B-40-177, B-40-180, B-40-181, B-40-182, B-40-183, B-40-184, B-40-286-24C, B-40-286-24D, B-40-286-21, B-40-286-26, contact Al Gilbertson at (262) 48-8817 for permit status and requirements.

Presently, the state has an exclusive mandatory use contract with a private waste management contractor to transport and dispose of hazardous waste.

The state's waste management contractor shall furnish and deliver appropriate hazardous waste containers and site-specific labels to each bridge site. The provided containers shall be placed at pre-selected drop-off and pick-up points at each bridge site, and these

locations shall be determined at the preconstruction conference. The custody of the containers and labels shall be the responsibility of the painting contractor while they are at the job site.

Report all reportable spills and discharges in accordance to the contingency plan.

Labels are site-specific. Check the labels to ensure that the project ID, structure number, and EPA ID match the structure generating the waste. Apply a label to each drum when it is opened for the first time. Fill in the date on the label the first day material is accumulated in the drum. The following page is an example of a properly filled-in label.

During paint removal operations, continuously monitor and notify the project inspector of the status of waste generation and quantity stored so that timely disposal can be arranged.
517-055 (20100709)

HAZARDOUS WASTE

WW-5257580999-001-01-0

STORAGE LABEL

DOT SHIPPING DESCRIPTION

RQ, HAZARDOUS WASTE, SOLID, n.o.s.,
(LEAD), 9, NA3077, III, (D008)

Enter the date that waste materials were first placed into the container

EPA CODE: E/D008 STATE: S
WIP#: 391498
WIP DESC: BRIDGE SAND WITH LEAD

DATE ACCUMULATED: 07/01/2005

HAZARDOUS WASTE – FEDERAL LAW PROHIBITS IMPROPER DISPOSAL IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

WISC DOT BRIDGE # B-29-53/54
I-94 OVER CTH H
PROJECT # 5882-03-70
CAMP DOUGLAS, WI 54618 (608) 963-0871

GENERATOR EPA ID
WIR000121103

Project ID Number on label must match the Project Number assigned by the WIDOT

Bridge Number and Address on label must match specific bridge from which waste was generated.

EPA ID Number on label is specific to the bridge from which the waste is generated.

36. Negative Pressure Containment and Collection of Waste Materials, B-40-174, Item 517.4500.S.04; B-40-175, Item 517.4500.S.05; B-40-176, Item 517.4500.S.06; B-40-177, Item 517.4500.S.07; B-40-180, Item 517.4500.S.09; B-40-181, Item 517.4500.S.10; B-40-182, Item 517.4500.S.11; B-40-183, Item 517.4500.S.12; B-40-184, Item 517.4500.S.13; B-40-286-24C, Item 517.4500.S.16; B-40-286-24D, Item 517.4500.S.17; B-40-286-21, Item 517.4500.S.18; B-40-286-26, Item 517.4500.S.19.

A Description

This special provision describes providing a dust collector to maintain a negative air pressure in the enclosure; furnishing and erecting enclosures as required to contain, collect and store waste material resulting from the preparation of steel surfaces for painting, and repainting, including collection of such waste material, and the labeling and storage of waste material in approved hazardous waste containers, all as hereinafter provided.

B (Vacant)

C Construction

Erect an enclosure to completely enclose (surround) the blasting operations. The ground, slope paving, or roadway cannot be used as the bottom of the enclosure. So that there are no visible emissions to the air or ground or water, design, erect, operate, maintain and disassemble the enclosures in such a manner to effectively contain and collect dust and waste materials resulting from surface preparation and paint over spray. Where bulkheads are required, construct them of plywood and properly seal them. Suspend all enclosures over water from the structure or as approved by the engineer.

Construct the enclosure of flexible materials such as tarpaulins or of rigid materials such as covered plywood, or of a combination of flexible and rigid materials. Systems manufactured and provided by Eagle Industries, Detroit Tarps, or equal, are preferred. The tarpaulins shall be lined, either as part of the tarp system or have a separate plastic lining. Maintain all materials free of tears, cuts or holes. The vertical sides of the enclosure shall extend from the bottom of the deck down to the level of the work platform or barge where used for structures over water, and shall be fastened securely to those levels to prevent the wind from lifting them. Bulkheads are required between beams to enclose the blasting area as approved by the engineer. Where bulkheads are required, construct them of plywood and properly seal them. To prevent spent materials and paint over spray from escaping the enclosed area, overlap and fasten together all seams. Place groundcovers under all equipment prior to operations or as approved by the engineer.

To allow proper cleaning, inspection of structures or equipment, and painting, provide safe adequate artificial lighting in areas where natural light is inadequate.

Provide a dust collector so that there are no visible emissions outside of the enclosure and so that a negative air pressure inside the enclosure is maintained. The dust collector shall be sized to maintain the minimum air flow based on the cross-sectional area of the enclosure.

A combination of positive air input and negative air pressure may be needed to maintain the minimum airflow within the enclosure.

Filter all air exhausted from the enclosure to create a negative pressure within the enclosure so as to remove all hazardous and other particulate matter.

As a safety factor for structures over water, provide for scum control. Effectively contain the scum that forms on the water and does not sink in place from moving upstream or downstream by the use of floating boom devices.

If in the use of floating boom devices the scum tends to collect at the devices, contain, collect, store the scum, and do not allow it to travel upstream or downstream beyond the devices. Remove the scum at least once a day or more often if needed.

Collect and store at the bridge site for disposal all waste material or scum collected by this operation, or any that may have fallen onto the ground tarps. Collect and store all waste material and scum at the end of each workday or more often if needed. Storage shall be in provided hazardous waste containers. Label each container as it is filled, using the labels provided by the Hazardous Waste Disposal contractor. Check the label and ensure that the project ID, bridge number and EPA ID match the structure. Fill in the generation date when the first material is placed in the container. Secure all containers at the end of each workday. Keep the containers covered at all times except to add or remove 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.

In a separate operation, recover the recyclable abrasive for future application, and collect the paint and/or corrosion particles for disposal. Sand is not an acceptable abrasive.

D Measurement

The department will measure Negative Pressure Containment and Collection of Waste Materials (Structure), completed in accordance to the contract and accepted, as a single complete unit of work for each structure designated in 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
517.4500.S.04	Negative Pressure Containment and Collection of Waste Materials B-40-174	LS
517.4500.S.05	Negative Pressure Containment and Collection of Waste Materials B-40-175	LS
517.4500.S.06	Negative Pressure Containment and Collection of Waste Materials B-40-176	LS
517.4500.S.07	Negative Pressure Containment and Collection of Waste Materials B-40-177	LS
517.4500.S.09	Negative Pressure Containment and Collection of Waste Materials B-40-180	LS
517.4500.S.10	Negative Pressure Containment and Collection of Waste Materials B-40-181	LS
517.4500.S.11	Negative Pressure Containment and Collection of Waste Materials B-40-182	LS
517.4500.S.12	Negative Pressure Containment and Collection of Waste Materials B-40-183	LS
517.4500.S.13	Negative Pressure Containment and Collection of Waste Materials B-40-184	LS
517.4500.S.16	Negative Pressure Containment and Collection of Waste Materials B-40-286-24C	LS
517.4500.S.17	Negative Pressure Containment and Collection of Waste Materials B-40-286-24D	LS
517.4500.S.18	Negative Pressure Containment and Collection of Waste Materials B-40-286-21	LS
517.4500.S.19	Negative Pressure Containment and Collection of Waste Materials B-40-286-26	LS

Payment is full compensation for designing, erecting, operating, maintaining, and disassembling the containment devices; providing negative pressure exhaust ventilation; collecting, labeling, and for storing spent materials in provided hazardous waste containers.
517-065 (20101008)

37. Portable Decontamination Facility, Item 517.6001.S.

A Description
This special provision describes furnishing and maintaining weekly, or more often if needed, a single unit portable decontamination facility as hereinafter provided.

B Materials
Supply adequate heating equipment with the necessary fuel to maintain a minimum temperature of 68° F in the facility.

The portable decontamination facility shall consist of a separate "Dirty Room", "Shower Room" and "Clean Room". The facility shall be constructed so as to permit use by either sex. The facility shall have adequate ventilation.

The "Dirty Room" shall have appropriately marked containers for disposable garments, clothing that requires laundering, worker shoes, and any other related equipment. Each container shall be lined with poly bags for transporting clothing, or for disposal. Benches shall be provided for personnel.

The "Shower Room" shall include self-contained individual showering stalls that are stable and well secured to the facility. Provide showers with a continuous supply of potable hot and cold water. The wastewater must be retained for filtration, treatment, and/or for proper disposal.

The "Clean Room" shall be equipped with secure storage facilities for street clothes and separate storage facilities for protective clothing. The lockers shall be sized to store clothing, valuables and other personal belongings for each worker. Benches shall be provided for personnel.

Supply a separate hand wash facility, either attached to the decontamination facility or outside the containment.

C Construction
Properly contain, store, and dispose of the wastewater.

D Measurement
The department will measure Portable Decontamination Facility by the 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
517.6001.S	Portable Decontamination Facility	Each

Payment is full compensation for furnishing and maintaining a portable decontamination facility.
517-060 (20050502)

38. Noise Barriers Double-Sided Sound Absorptive N-40-7, Item 531.0300.S.01.

A Description
This special provision describes designing, fabricating, transporting, and erecting double-sided sound absorptive noise barriers in accordance to the plans, applicable portions of the standard specifications, the department-approved installation specifications, and as hereinafter provided.

B Materials

All materials used in the work shall conform to the pertinent requirements of the standard specifications and as hereinafter specified.

Provide grade A, A-2, A-FA, A-S, A-T, A-IS, or A-IP concrete conforming to standard spec 501 for concrete posts and the core component of composite concrete sound absorbing panels.

B.1 System Pre-Qualification

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 at: http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm. Systems eligible for use on this project shall be pre-qualified and added to that list prior to the award of this contract.

B.2 Design

The department specifies pre-qualified double-sided sound absorptive noise barrier products on the department's approved product lists available at:
http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm

Provide the name of the selected system 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. The suppliers of the noise barrier components shall attend this meeting.

B.2.1 Structural and Foundation Design

The structural and foundation design of the noise barrier system shall be in accordance to the current edition of "Guide Specifications for Structural Design of Sound Barriers published by the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW, Suite 225, Washington, DC 20001.

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.

The top 3-feet of supporting soil shall be ignored in the design of ground-mounted barrier foundations.

B.2.2 Fire Hose Access Openings

Design fire hose access openings, at locations shown on the plans, with additional reinforcement and protective coating 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 Color and Surface Texture

Unless otherwise shown and provided for in the plans, residential side wall pattern shall be a "drystack cut rock" pattern, simulating a native Wisconsin cut limestone wall. The pattern shall consist of random sized "cut rock" pieces ranging from a minimum of 2-inches high by 7-inches long to a maximum of 12-inches high by 30-inches long with a maximum relief of 1-inch.

Highway side wall pattern shall be a lightly textured surface with stained reveals as shown on the plans.

The final color of the panels and posts shall be as shown on the plans and match the Sherwin-Williams standard color system list. Coating and coloring of the post and panels shall be shop-applied, except where shown on the plans.

Base Color Whole Wheat – SW 6121, FN122
Accent Color 1 Baguette – SW 6123, FN 124
Accent Color 2 Craft Paper – SW 6125, FN 126

All individual noise barrier panels shall not be more than one color except as noted in the following paragraph, and 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.

Highway side panels shall have the 3-inch reveals on the highway side pattern stained the darker Accent Color 2.

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.

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.2.6 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.

B.2.7 Noise Reduction Coefficient (NRC)

Design the noise barrier so that at least 70 percent of the highway side of the noise barrier panels that are 2-feet above the ground shall have a minimum NRC of 0.80. The remaining noise barrier panels on the highway side that are 2-feet or more above the ground shall have a minimum NRC of 0.70. The minimum NRC for panels on the residential side, which are 2-feet above the ground shall be 0.70.

B.2.8 Structural Steel

Galvanize all structural steel after fabrication by the hot dip process in accordance to ASTM A123. Galvanize steel hardware and threaded fasteners, bolts, nuts, and washers in accordance to 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 per SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. The cleaned surface should then be Brush Blast Cleaned per SSPC-SP7 to create a slight angular surface profile (1.0 – 1.5 mils suggested) for adhesion. Blasting should not fracture the galvanized finish or remove any dry film thickness.

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.2.5. 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 1051 Permeter Drive, Suite 710 Schaumburg, IL 60173 (847) 330-1562	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
Carbolin 350 Hanley Industrial St Louis, MO 63144 (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
Wasser Corporation 4118 B Place NW Suite B Auburn, WA 98001	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

B.2.9 Design Coordination

B.2.9.1 Underground Utility and Drainage Crossings

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.

B.2.10 Project Submittal Requirements

Submit three copies of the following documents to the engineer for review:

1. All structural and foundation design calculations.
2. Detailed design/shop drawings.
3. Certifications for all materials, including trade name of the products along with the name and address of the manufacturers.
4. Specifications regarding installation requirements and sequence of construction, including a detailed bill of materials.
5. Detailed colored plan of the aesthetic treatment for the entire noise barrier.

Submit the following documents to the Bureau of Structures Design Section:

1. Three sets of design/shop drawings and one set of design calculations for review and acceptance. Any necessary revisions and/or corrections required for acceptance will be noted and returned to the contractor.

Design calculations shall be on 8½-inch x 11-inch sheets, neatly bound with a title sheet listing the complete project identification number and sound barrier designation. 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 should 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 and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

B.2.11 Review Process

All documents, including drawings, calculations and related material submitted for review will be given final acceptance by the engineer.

It is expressly understood that the engineer's review and acceptance of the drawings, calculations, and related material, submitted by the contractor, means only an acceptance of the character and sufficiency of the details, 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 shall 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 the submittal requirements shall be at the contractor's own risk.

B.3 Wall System Testing Requirements

All test reports required in section B.3 shall reference the specific facility which will be producing material for this contract. Test reports shall be representative of differing production lots on materials manufactured for this specific contract which is representative of the manufacturer's continuous production for wall systems. Panels tested or from which samples will be taken from shall be selected and appropriately marked by the engineer either at the manufactures' plant or from panels delivered to the project at the engineer's option. Test reports will be required for each lot of material not to exceed 100,000 SF of noise barrier produced. Testing shall be conducted 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.

Products tested should be tested as a system under the requirements in B.3.1 and B.3.2; this includes stain intended for the supplied concrete and composite concrete components wall panels.

B.3.1 Noise Reduction Coefficient (NRC)

The noise barrier panel shall be tested in accordance to ASTM C423, and placed in accordance to ASTM E795, mounting type A, to determine the noise reduction coefficient (NRC) of the material. Submit to the engineer an independent testing laboratory test report that shows that the noise barrier panels achieve an NRC as specified for each side of the barrier.

B.3.2 Salt Scaling Resistance

All sound absorbing composite concrete and composite concrete components shall be tested for salt scaling resistance in accordance to ASTM C672 and the following modifications and/or requirements.

B.3.2.1 Test Specimens

For the purposes of the test, three specimens of a full cross section of the composite panel at least 12 inches x 12-inches shall be selected at random from the provided composite panel as defined in B.3. Sample specimens shall be from production panels as selected and marked by the engineer, representative of the manufacturer's continuous production operation.

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

B.3.2.2 Test Procedure

Place samples in a 5 sided water tight container in which a solution of sodium chloride (concentration 3% by mass) fully submerges the specimen. A ¼- inch of sodium chloride solution shall be maintained above the top surface of the fully submerged specimen within the container.

The specimens shall then be subjected to continuous freeze-thaw cycles as follows:

After each five cycles, the salt solution and particles of deteriorated concrete shall be removed from the slab and collected 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. This washing should continue until all loose particles are removed from the concrete. The solution shall then be strained through a filter and the residue dried out at 221 degrees Fahrenheit to a constant mass condition. The residue shall be cumulatively weighed after each five cycles. This residue shall be defined as the loss of mass and expressed in pounds per square foot of exposed slab area. This is to exclude the concrete core for composite concrete panels in the calculation of the area used to express the mass loss per square foot. The loss of mass shall be calculated to the nearest 0.01 pounds per square foot. The surfaces should be rated in accordance to 10.1.5 of ASTM C672 including any delamination of the sound absorbing material from the concrete core for composite concrete materials. After the washing of each slab, a new solution of sodium chloride

(concentration 3% by mass) shall be placed in the 5 sided water tight container to fully submerge the specimen to a depth of ¼-inch above the top surface of the fully submerged test specimen.

The test shall continue until 50 freeze-thaw cycles have been completed.

During the test each specimen shall be positioned and supported to allow free circulation of the test solution under, around, and over test pieces. The bottom of the specimens shall be supported on blocks in a manner to assure movement of moisture through and around the test specimen(s).

B.3.2.3 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 50 freeze-thaw cycles the test specimens shall not exhibit excessive deterioration in the form of cracks, spalls, aggregate disintegration, delamentation, 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 50 cycles of freezing and thawing. The measured surfaces are not to include the exposed surface of any core material of a composite concrete component.
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 50 cycles freeze-thaw test.
    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, 30, 40, and 50 freeze-thaw cycles.
    9. Visual rating in accordance to 10.1.5 ASTM C672 including report of any delamination of the sound absorbing material from the concrete core for composite concrete components.

B.4 Wall Systems Material Requirement

Contractor shall provide certification of compliance to all applicable requirements in B.4. All material certifications shall reference the specific facility manufacturing the material and this contract. Certifications will be required for each lot of material not to exceed 100,000 SF of noise barrier produced. For projects that do not exceed 100,000 SF, a minimum of 2 lots of material will represent the project, each lot representing equivalent square footage.

B.4.1 Sound Transmission Loss (TL)

Submit to the engineer certification of compliance that the sound transmission loss of the panel material, when tested in accordance to ASTM Standard E90, achieves a transmission loss as specified in B.2.6.

B.4.2 Structural Steel

Submit to the engineer certification of compliance that structural steel galvanized after fabrication is in accordance to ASTM A123. Steel posts of post and panel walls shall be galvanized. Any galvanized surfaces exposed to view shall be coated with an approved paint system as referenced in B.2.8.

B.4.3 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 by 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 to ASTM D660.
2. No cracking when rated in accordance to ASTM D661.
3. No blistering when rated in accordance to ASTM D714.
4. No difference in adhesion between the unexposed control sample and an exposed sample when tested in accordance to ASTM D3359, Method A.
5. No chalking less than #7 rating when rated in accordance to ASTM D4214.
6. No color change greater than 5 NBS units when measured in accordance to ASTM D2244, using illuminant D65 and the 1964 10 degree standard observer.

B.4.4 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 to ASTM B117 and comply with the following requirements:

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

B.4.5 Steel Panels

All steel panels shall be minimum nominal 20 gauge galvanized steel. The steel panels shall be free from laminations, blisters, slivers, open seams, pits from heavy rolled-in scale, ragged edges or other defects that may affect their appearance or use for the intended purpose. All shearing, cutting, and punching shall be done prior to preparation of the panels for application of coatings.

B.4.6 Aluminum Panels

All aluminum panels shall be minimum 0.063 inch nominal thickness or greater. The aluminum panels shall be free from laminations, blisters, slivers, open seams, pits from heavy rolled-in scale, ragged edges or other defects that may affect their appearance or use for the intended purpose. All aluminum panels shall conform to the thickness tolerances of the Aluminum Association, Inc. All shearing, cutting, and punching shall be done prior to preparation of the panels for application of coatings.

B.4.7 Timber Components

All lumber and timber furnished for the work shall be in accordance to the requirements of standard spec 507 and as hereinafter specified.

B.4.7.1 Species of Wood

All lumber and timber, with the exception of Glue Laminated Timber, shall be from one of the following species: Douglas Fir-Larch, Southern Pine, and Hem-Fir.

Glue laminated timber shall be Southern Pine.

B.4.7.2 Preservative Treatment

All timber components shall receive a chemical preservative treatment. The wood shall be dried to 19% or less prior to treatment. The wood shall be treated using a chromated-copper arsenate solution in accordance to standard spec 507.2.2.6. After treatment, all wood having nominal dimensions less than 3-inches by 3-inches shall be air or kiln dried to a maximum moisture content of 15%. Wood in greater dimensions shall be dried to maximum moisture content of 19%. The required Certificate of Preservative Treatment shall indicate compliance with the maximum moisture content requirement(s), in addition to requirements of the preservative treatment specifications herewith set forth. Wood shall be protected from increases in moisture content until incorporated into the work.

B.4.7.3 Glue Laminated Timber

Glue laminated timber shall contain the mark of a recognized inspection agency as being in conformance with ANSI/AITC A190.1. A wet-use adhesive suitable for use with treated wood as shown in ANSI/AITC A190.1 shall be used. Members shall be of Industrial appearance grade per AITC 110.

Lumber to be glue laminated shall be pressure preservative treated prior to gluing to a retention of 0.4 pounds per cubic foot.

B.4.7.4 Lumber

Non-laminated timber shall not exceed the proportion of six (nominal width) to one (nominal thickness) and shall be No. 1 grade or better. Sound knots shall extend through members no farther than 50 percent of the cross-section width. Unsound knots are not permitted. Knots are not permitted in the fastening area of any member.

B.4.7.5 Plywood
Plywood shall be exterior type conforming to the provisions of the US Product Standards PS-1 and shall bear the mark of a qualified and approved inspection and testing agency.

B.4.7.6 Sealant/Stain
All wood components of the barrier system shall be coated with a wood sealer/stain as hereinafter provided.

The manufacturer shall select a sealer/stain from one of the sources on the department's approved product list. Product data sheets shall be provided which indicate the mixing directions and recommended method(s) of application. The method and rate of application shall be as recommended by the producer.

B.4.7.7 Hardware and Fasteners
All hardware and fastening devices shall be either hot dipped galvanized steel or made of nonferrous or stainless steel. Fastening devices shall be screws; no nails or staples shall be allowed.

B.4.7.8 Mineral Fiber Material
Mineral fiber material used to increase sound absorption shall be manufactured in accordance to Federal Specification HH-1-558B and ASTM C612. Mineral fiber material shall have a minimum density of 6 pounds per cubic foot, shall absorb less than 1 percent of water when tested in accordance to ASTM C553, be non-corrosive, and nonhygroscopic. The mineral fiber material shall be fastened to the noise barrier system in a manner to prevent sagging when in a saturated condition.

C Construction
C.1 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. All sound absorbing composite concrete components shall be delivered 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. Certifications and test reports will be required for each lot of material not to exceed 100,000 SF of noise barrier produced. For projects that do not exceed 100,000 SF a minimum of 2 lots of material will represent the project, each lot representing equivalent square footage.

Panels from which samples will be taken from for testing required in B.3 shall be selected and appropriately marked by the engineer either at the manufactures' plant or from panels delivered to the project at the engineer's option. Test reports will be required for each lot of material not to exceed 100,000 SF of noise barrier produced. Testing shall be conducted 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.

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.

C.2 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 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 Double-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.3 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, Double-Sided Sound Absorptive Structure and no additional compensation therefore will be allowed.

C.4 Tolerances The posts and panels comprising the noise barrier shall be installed plumb within ½-inch of vertical in 15-feet. The posts shall be located to the line and grades as shown in the plans to within +/- ¾-inch. Horizontal joints of adjacent panels shall be lined up to a vertical tolerance of ¼-inch. Where vertical adjustments are required for alignment, a mortar base or steel shims shall be used. Galvanize and prime coat steel shims in accordance to B.2.8.

C.5 Foundations

The contractor is responsible for constructing suitable foundations to support ground mounted noise barriers in accordance to the submitted and accepted structural design and construction details. The subsurface conditions vary across the project site and are not necessarily the same along the length of each retaining wall in the project. Anticipate the possibility of encountering randomly interlaced seams of loose, permeable sand or gravel of substantial thickness situated within glacial clays and till deposits; saturated soils; ground water; isolated cobbles or boulders; and nested cobbles and boulders at any concrete masonry solider pile footing location when selecting equipment and methods for constructing the foundations. In the event drilled holes are used for foundation excavation, partial or full depth temporary casing, slurry or a combination thereof, may be required to maintain the stability of the excavated drill holes prior to placement of the noise barrier support post in the hole and filling the hole with concrete. If natural or manmade obstructions are encountered during noise barrier foundation excavation or noise barrier foundation hole drilling, clear the obstructions in such a manner so as to not compromise the sidewall integrity or stability of the excavation or drilled, open hole.

D Measurement

The department will measure Noise Barriers Double-Sided Sound Absorptive (Structure), as set forth in the contract plans without measurement thereof. Any modifications to the contract quantity caused by corrections or revisions of the original contract plan, which have been approved by the engineer, will be measured by the square foot. This area in square feet will be determined by measuring the length in linear feet along the faces of the noise barrier, and height in linear feet from bottom to top of the noise barrier, then multiplying the measured length by the measured height, and the contract quantity will be adjusted accordingly to determine the final pay quantity.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
531.0300.S.01	Noise Barriers Double-Sided Sound Absorptive N-40-7	SF

Payment is full compensation for preparing the design drawings and calculations; supplying and delivering samples and test barrier panels as required in B.2.5 and B.3; furnishing all labor, equipment, and materials required for the manufacture, testing, supply, and delivery of the noise barrier material including aesthetic patterns on panel and coloring; furnishing all labor, tools, equipment, and materials required to construct the noise barriers, including site preparation, all necessary excavation, disposing of materials, constructing foundations, clearing obstructions if encountered during foundation excavation or foundation hole drilling including natural or manmade obstructions, and erecting posts and panels.

531-010 (20110615)

39. Salvaged Sand Barrels.

Remove and salvage sand barrels per the requirements of standard spec 614. Deliver all empty sand barrels and lid tops to Milwaukee County Highway Maintenance shop located at 10190 W. Watertown Plank Road, Wauwatosa, WI 53226.

40. 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
Service Temperature:	-60° F to 200° (ASTM D648)
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.

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.
616-030 (20070510)

41. Signs Type I and II.

Furnish and install mounting brackets per approved product list for type II signs on overhead sign supports incidental to sign. For type II signs on sign bridges use aluminum vertical support beams noted above incidental to sign.

Modify standard spec 637.2.4 with the following:

Use stainless steel bolts, washers and nuts for type I and type II signs mounted on sign bridges or type I signs mounted on overhead sign supports. Use clips on every joint for Sign Plate A 4-6 when mounted on a sign bridge or overhead sign support. Inspect installation of clips and assure bolts and nuts are tightened to manufacturers recommended torque values.

Use aluminum vertical sign support beams that have a 5-inch wide flange and weigh 3.7 pounds per foot, if the L-brackets are 4 inches wide then use 4 inch wide flange beams weighing 3.06 pounds per foot. Contractor shall measure the width of the L-brackets on existing structures of determine the width needed for sign support beams

Use beams a minimum of six feet in length or equal to the height of the sign to be supported, whichever is greater. Use U-bolts that are made of stainless steel, one-half inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

For type II signs on overhead sign supports follow the approved product list for mounting brackets.

Replace standard spec 637.2.4.1(2)2 with the following:

Clips may be either stainless steel or ASTM B 108, aluminum alloy, 356.0-T6.

Append standard spec 637.3.2.1(3) with the following:

Provide the engineer with 3 copies of drawings of the signs proposed to be furnished under this contract for approval.

Append standard spec 637.3.3.2(2) with the following:

Install Type I Signs at the offset stated in the plan, which shall be the clear distance between the edge of mainline pavement right edgeline and the near edge of the sign.

Append standard spec 637.3.3.3(3) with the following:

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type I or Type II Signs and Type I signs on overhead sign supports incidental to sign.

42. Traffic Control.

Perform work under the various Traffic Control items in accordance to the requirements of section 643 of the standard specifications, and as shown on the plans or as approved by the engineer, except as hereinafter modified.

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 Milwaukee County Sheriff's Department, the Wisconsin State Patrol, and the engineer a current telephone number with which the contractor or his representative can be contacted 24 hours a day in the event a safety hazard develops.

Do not proceed with any operation until all traffic control devices for such work are in the proper location.

Do not park or store any equipment, vehicles, or construction materials within 30 feet of the edge of the traffic lane or ramps during non-working hours except at locations and periods of time approved by the engineer. At such locations, do not create a hazard to the traveling public with the involved materials and equipment.

Do not permit equipment or vehicles to directly cross the live traffic lanes of the highway. Yield to all through traffic at all locations. 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.

Supplement standard spec 107.8 as follows:

Equip all construction vehicles and equipment operating on or near roadways open or closed to traffic with at least one flashing amber light. Activate the flashing amber light 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. Mount the flashing amber light approximately midway between the transverse extremities of the vehicles or machinery and at the highest practicable point that provides visibility from all directions. Provide flashing strobe or revolving type lights 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

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

Obtain prior approval from the engineer for all locations of egress or ingress for construction vehicles other than as shown in the plans to prosecute the work.

Do not use flag persons to direct, control, or stop IH 43/IH 94 traffic.

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

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

Cover all traffic control signs when they are not in use.

Provide new high intensity reflective sheeting on all traffic control drums and barricades.

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.

43. 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.
643-010 (20100709)

44. 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

- 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. –
- 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)

45. Removing Pavement Markings.

Replace paragraph (2) of standard spec 646.3.4 with the following:

Remove pavement markings by blast cleaning. Remove all dust and other residue continuously while blast cleaning. Collect, haul, and dispose of dust or residue from removals. Repair damage caused by the contractor's removal operations.

46. Temporary Pavement Marking.

Replace paragraph (3) of standard spec 649.3.1 with the following:

Apply temporary pavement marking lane lines in the exact location as permanent pavement markings, as shown in the plans. Do not apply temporary pavement markings on any intermediate pavement layers, including milled surfaces, unless otherwise directed by the engineer. As directed by the engineer, remove temporary dashed and dotted lane line pavement markings and temporary gore pavement markings by cutting grooves in accordance to the article Pavement Marking Grooved Wet Reflective Tape 4-Inch" and "Pavement Marking Grooved Wet Reflective Tape 8-Inch.

47. 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:

- 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.
- 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.3 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.4 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.5 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:

- The protectors shall suppress a peak surge current of up to 10k amps.
- The protectors shall have a response time less than one nanosecond.
- 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.
- The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
- The protector shall also contain a resettable fuse (PTC) to protect against excessive current.

- There shall be no more than two pairs per protector.
- 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.
670-010 (20100709)

48. Intelligent Transportation Systems – Signal Assemblies.

Modify standard spec 676 with the following:

676.2.4 Signal Heads

(1) Furnish the housing, visor, lenses, LED modules, and other components consisting of an LED signal head assembly from the statewide approved electrical materials list.

49. Anchor Assemblies Light Poles on Structures, Item 657.6005.S.

A Description
This special provision describes furnishing and installing anchor bolt assemblies for light poles as shown on the plans, and as hereinafter provided.

B Materials
Furnish anchors of the size and spacing as given on the plans, and that conform to ASTM A449 or AASHTO M314 GR 55. The upper 8 inches of the bolts, nuts, and washers shall be hot-dipped galvanized in accordance to ASTM A153, Class C. Provide enlarged threads on nuts for proper fit after galvanizing.

C Construction
Provide two nuts and two washers per anchor bolt, and install per light standard manufacturer's recommendations.

D Measurement
The department will measure Anchor Assemblies Light Poles on Structures as a unit for each individual anchor bolt 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
657.6005.S	Anchor Assemblies Light Poles on Structures	Each

Payment is full compensation for furnishing and installing the anchorages.
657-060 (20100709)

50. Truck Mounted Attenuator, Item SPV.0045.01.

A Description
Furnish and deploy a truck with truck-mounted attenuator (TMA) and operator for use on this project during moving operations and short-term stationary roadwork, as shown in the plans or as directed by the engineer, and as hereinafter provided.

B Materials
Meet the requirements of NCHRP Report 350. Meet the TMA manufacturer's recommendations with a minimum total gross weight of 25,000 pounds.

C Construction
Provide an operator with the vehicle at all times during moving operations

D Measurement
The department will measure Truck Mounted Attenuator by the day. For this special provision, the number of days measured is defined as the number of calendar days that the truck, TMA and operator are used in moving operations or short-term stationary work. A calendar day begins and ends at midnight and will be counted when use exceeds two hours during the 24-hour period.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.01	Truck Mounted Attenuator	DAY

Payment is full compensation for deployment of the equipment and its operator.

51. Congestion Warning System, Item SPV.0045.02.

A Description

This special provision describes furnishing, installing, operating, maintaining, monitoring, and removing a congestion warning system (CWS) as shown in the plans as necessary during construction work. The CWS is a type of Intelligent Work Zone Systems. Actual deployment locations to be determined in the field by the engineer and vendor/manufacturer based on ramp locations and other field conditions. Contact Traffic Operations, WISDOT for changes in locations.

B Materials

Provide a CWS consisting of static traffic control signs with temporary flashing beacons, Traffic Detectors (TD), and an Automated System Manager (ASM) per direction of traffic flow.

B.1 Traffic Detectors (TD)

Provide TDs that are non-intrusive and capable of capturing traffic speed (mph) and traffic volume.

Arrange coordination between the vendor/manufacturer and the engineer as to quantity and location of TDs, and as to which specific detectors shall collect speed and volume data, and for what duration. The location of the TDs may not correspond with the location of the PCMSs.

B.2 Temporary Flashing Beacons

Place two amber single-face 12-inch signal heads on each sign assembly as shown in the plans or as directed by the engineer. Each system is to be solar powered and is to operate in a wigwag fashion when automatically activated by the Intelligent Work Zone System.

Provide all materials necessary to install temporary flashing beacons in accordance to section 658 of the standard specifications.

B.3 Automated System Manager (ASM)

Provide ASM that assesses current traffic data captured by the TDs and activates the flashing beacons based upon pre-determined criteria. Provide real-time data from the ASM to a website. Locate the ASM within the project limits or house at a remote facility of the vendor’s choosing.

B.4 Data

Provide speed and volume data that are available to the department's staff at all times for the duration of work zone activity. Historical data should be password protected and stored on the website for each day the system is in use, with date and time stamps included. Provide an electronic copy of all data to the department staff each week for the duration of work zone activity and until the CWS has been removed.

B.5 System Acceptance

At time of bid, submit vendor verification that the system will adequately perform the functions specified in this special provision. Adequate verification includes past successful performance of the system in Wisconsin, successful deployments in neighboring states, literature and references from successful use of the system by other agencies, and/or demonstration of the system to designated department staff upon request.

C Construction

C.1 General

Provide a CWS that accommodates a minimum of three distinct traffic conditions: Free Flow, Congestion, and Loss of Communication

C.2 System Operation Strategy

Arrange that the vendor/manufacturer coordinate system operation, detection, trends/thresholds, and messaging parameters with the engineer; the Southeast Region Work Zone Engineer, and the construction contractor.

- **Free Flow:**
  The free flow traffic conditions are to be determined by WisDOT, but typical traffic conditions that warrant this strategy may include:
- Trend of vehicle speeds at two points above an adjustable parameter. This parameter shall be set for optimal results based on on-site monitoring and review as directed by the engineer. Typically greater than 50 mph may be utilized as a guideline.
- A trend of vehicle volume between two points below an adjustable parameter. This parameter shall be set for optimal results based on on-site monitoring and review as directed by the engineer. Typically less than 1000 vehicles/hour/lane may be utilized as a guideline.
- A trend including increased vehicle speeds together with reduced volume. These parameters shall be set for optimal results based on on-site monitoring and review as directed by the engineer.
- During Free Flow conditions, the beacons should not be flashing.
- **Congestion:**
  The congestion traffic conditions are to be determined by WisDOT, but typical traffic condition warrants may include:
- A trend of vehicle speeds at two points below an adjustable parameter. This parameter shall be set for optimal results based on on-site monitoring and review as directed by the engineer. Typically less than 45 mph may be utilized as a guideline.

- A trend of vehicle volume between two points above an adjustable parameter. This parameter shall be set for optimal results based on on-site monitoring and review as directed by the engineer. Typically greater than 1500 vehicles/hour/lane may be utilized as a guideline.
- A trend including reduced vehicle speeds together with increased volume. These parameters shall be set for optimal results based on on-site monitoring and review as directed by the engineer.
- When traffic conditions warrant a change to the congestion warning system, activate the temporary flashing beacons.
- **Loss of Communication:**
  If the CWS has a loss of communication between the TD locations, the beacons should be flashing.

D Measurement

The department will measure Congestion Warning System per each system complete per day, acceptably completed. Arrange that the vendor/manufacturer provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Any day in which the CWS is not working properly for more than 30 minutes will result in one day being deducted from the quantity measured for payment. It is the engineer's sole discretion to assess the deductions for an improperly working CWS. There will be no deductions in payment if the engineer decides not to use the CWS at any time, even though the CWS is fully functioning.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.02	Congestion Warning System	DAY

Payment is full compensation for furnishing, installing, operating, maintaining, monitoring, and removing the complete system, including Traffic Detectors (TD), an Automated System Manager (ASM), data, system acceptance, and traffic control signs with temporary flashing beacons.

52. Portable Changeable Message Sign (PCMS) Cellular Communications, Item SPV.0045.03.

A Description

This special provision describes cellular communications requirements for use with PCMS. Cellular communication allows the department to control PCMS during incidents or other emergencies through Trans Suite software. The department will notify contractor of message changes.

B Materials
Provide a cellular modem and antenna that enables the department to communicate and control PCM conforming to standard spec 643.2.7.

B.1 Cellular Modem and Antenna
Furnish an EV-DO Cellular modem registered to a 3G Cellular carrier. The cellular modem must include one or more external antennas, one or more 10/100 Ethernet ports, and one or more db9 Serial RS-232 interfaces. The device must be able to handle -30° C to +75° C and powered by a 12VDC power supply. The cellular modem must have a built-in secure router with NAT, port forwarding and IP pass-through capabilities.

Provide management IP and passwords for the cellular modem to the department.

Access includes IP address, serial port setting, and password(s). Antenna cable shall be continuous without splices. Mount the antenna at the highest practical location on the PCMS.

C Construction
Conform to standard spec 643.3.7. Install cellular modem in a lockable, weatherproof compartment in the PCMS trailer.

A minimum of 14 days prior to deployment, demonstrate to the department that the cellular modem is capable of communications Trans Suite software.

If remote communications are interrupted or temporarily unavailable, contractor will be notified by the department to change the message.

D Measurement
The department will measure Portable Changeable Message Sign (PCMS) Cellular Communications by the day acceptably completed, measured as the number of calendar days each cellular modem for PCMS is available for exclusive use under the contract. The department will deduct one day for each calendar day the sign communications are required but out of service for more than 2 hours.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.03	Portable Changeable Message Sign (PCMS) Cellular Communications	DAY

Payment is full compensation for providing, operating, and maintaining a cellular modem and antenna, and for making message changes if cellular communications are interrupted or temporarily unavailable.

53. Disincentive For Interim Completion of Work, Stage 2B, Item SPV.0045.04; Incentive for Interim Completion of Work, Stage 2B, Item SPV.0045.05.

A General

This item shall consist of either an incentive payment or disincentive pay reduction as specified below.

Complete all of the work necessary to complete Stage 2B, remove construction equipment and materials from within the clear zone, open the ramp from westbound IH 794 to southbound IH 43/IH 94 (ES Ramp) to traffic, and open the outside shoulder and outside lanes of IH 43/IH 94 to traffic on finished surfaces prior to 12:01 AM June 26, 2013, or with such extended time as may be allowed. Maintain all other temporary traffic control devices and lane configurations for Stage 2B for the duration of Summerfest (June 26, 2013 – July 7, 2013).

The completion time allowed for this contract is based on an expedited work schedule.

Under this Incentive/Disincentive plan, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

Each day shall be defined as a 24 hour period beginning at 12:01 AM.

The maximum incentive payment, as shown on the Schedule of Items, is for department accounting purposes. The actual incentive payment the contractor may receive shall be in accordance to section B of this special provision.

Incentive payments will not be considered as part of the money value of the work completed for computing time extensions.

B Incentive Payment

The contractor shall be entitled to a one-time incentive payment for completion of all of the work necessary to complete Stage 2B work as described in section A of this provision prior to 12:01 AM, June 26, 2013 or such extended time as may be allowed.

The one-time incentive payment shall be paid as a single payment of $100,000 for completion of the work described above prior to 12:01 AM June 26, 2013. No additional amount will be paid above the one-time total of $100,000.

C Disincentive Pay Reduction

Should the contractor fail to complete all of the work necessary to complete Stage 2B work as described in section A of this provision prior to 12:01 AM, June 26, 2013 or within such extended time as may be allowed, the contractor shall be liable to the department for a pay reduction in the amount of $5,000 per day or portion thereof, for each calendar day after 12:01 AM, June 26, 2013 that work remains incomplete.

If contract time expires before completing all work specified in the contract, additional liquidated damages according to standard spec 108.11 will be affixed in addition to the disincentive pay reduction.

D Measurement and Payment

The department will measure and pay for Incentive For Interim Completion of Work, Stage 2B as a single payment to the contractor for satisfactorily completing the work hereinbefore specified.

The department will measure Disincentive For Interim Completion of Work, Stage 2B by the calendar day and will assess the disincentive at the contract unit price per calendar day for each calendar day that the contractor fails to complete all the work as hereinbefore specified.

54. Cleaning and Painting Bearings, Item SPV.0060.01.

A Description

This special provision describes cleaning and painting the existing steel bearings on structures as shown on the plans, as directed by the engineer, and in accordance to standard spec 517.

B Materials

Furnish a complete epoxy coating system from the department's approved product list. Use the same coating system for all repairs due to handling, shipping and erecting, and for all other uncoated areas. The color of epoxy shall be white and the urethane coating material shall match the color number shown on the plans in accordance to Federal Standard Number 595B, as printed in 1989. Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the minimum drying time for shop or field applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

C Construction

C.1 Surface Preparation

Clean areas of loose paint and rust by wire brushing, grinding, or other mechanical means. Sound paint does not need to be removed.

After clean up and storage of waste material, blast cleaning is allowed for only those areas where paint has been removed. Shield adjacent painted areas during blast cleaning operations. The blasting sand does not have to be collected.

Furnish adequate containment methods as required to contain and collect waste material resulting from the preparation of painted steel surfaces for painting. All cleanup activities should minimize dust. Store waste materials in hazardous waste containers provided by the department.

C.2 Coating Application
Apply paint in a neat, workmanlike manner, and in accordance to the manufacturer's instructions and recommendations. Paint application shall be brushed on.

D Measurement
The department will measure Cleaning and Painting Bearings as each individual bearing, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Cleaning and Painting Bearings	Each

Payment is full compensation for preparing and cleaning the designated bearings; furnishing and applying the paint; and for cleaning up, and containing and collecting all waste materials.

55. Hanger Assembly, Item SPV.0060.02.

A Description
This special provision describes furnishing and installing new hanger plates, pins and bushings, in accordance to details shown on the plans, the pertinent provisions of the standard specifications, and as hereinafter provided.

B (Vacant)

C Construction
Prior to starting work, submit to the engineer drawings showing the method of supporting the suspended side of the hinge. Work will be permitted on only one line of girders at each hinge unless otherwise approved by the engineer. Clean and paint the girders in the hinge area over a distance of 1'-0" to each side of the centerline of the hanger plates. Machine the pins to fit the bushings within a tolerance of -0.005 to -0.010-inches. Using a boring machine or other equipment that is attached to the girder, bore or ream holes in the existing web and pin plates to the correct oversize.

D Measurement
The department will measure Hanger Assembly as each individual hanger 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.0060.02	Hanger Assembly	Each

Payment is full compensation for removing existing hangers and pins, supporting the suspended end of the girder, furnishing, fabricating, and installing all materials; and for cleaning and painting metal surfaces.

56. Remove and Reinstall Light Pole, Item SPV.0060.03.

A Description

This work consists of furnishing all labor, equipment and materials to remove, store in a safe place, transport and re-erect removed light poles. This work includes providing all hardware, fittings, wiring, grounding and any associated material necessary to complete the work. Ensure all work is done in accordance to applicable sections of the standard specifications and as directed by the engineer except, as described herein.

B Material

Ensure materials meet the requirements specified in applicable sections of the Standard Specifications and the requirements of this special provision.

Furnish all hardware Type 304 stainless steel, or hot dipped galvanized steel.

C Construction

Ensure the work is done in accordance to the standard specifications.

Light Pole removal includes the light fixture, arm, pole, hardware, wiring and all associated materials to complete the work. Disposal of the non-salvageable removed material will be performed as directed by the engineer.

Light pole foundation is not included in here, but is part of the structural work.

Any damage sustained to the lighting unit during removal operations shall be repaired, or replaced in kind, to the satisfaction of the engineer.

D Measurement

The department will measure Remove and Reinstall Light Pole by each individual removed and reinstated 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.0060.03	Remove and Reinstall Light Pole	Each

Payment is full compensation for removing and reinstalling existing light poles as shown on the plans. Remove and Reinstall Light Pole will be payment in full for furnishing all labor and equipment required to remove the light pole assembly, hardware and any associated material required to complete the work. Disposal of any non-salvageable material is also included in the item and will not be paid for separately. This item and payment also includes furnishing all labor, equipment and materials required to install the

removed light pole assembly on a new bridge foundation, hardware and any associated material required to complete the work. Storage of the removed light pole will be as directed by the engineer and must be stored in such a manner that no damage will occur to the light fixture, arm or pole.

57. Concrete Barrier Transition Sloped Face Parapet HF, Item SPV.0060.04.

A Description

This special provision describes constructing a concrete barrier transition from Sloped Face Parapet HF to Concrete Barrier Single Faced 32-Inch, in accordance to standard spec 603 and as shown in the plans.

B Materials

Furnish materials that are in accordance to the pertinent requirements of standard spec 603.2.

C Construction

Construct in accordance to standard spec 603.3.

D Measurement

The department will measure Concrete Barrier Transition Sloped Face Parapet HF as each individual installation, 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.0060.04	Concrete Barrier Transition Sloped Face Parapet HF	Each

Payment is full compensation in accordance to standard spec 603.5.2.

58. Mobilizations Emergency Pavement Repair, Item SPV.0060.05.

A Description

Furnish and mobilize personnel, equipment, traffic control, and materials to the project site to repair the existing pavement on an emergency basis as the engineer directs.

B (Vacant)

C Construction

Mobilize with sufficient personnel, equipment, traffic control, materials and incidentals on the jobsite within 4 hours of the engineer’s written order to repair the existing pavement on an emergency basis.

An emergency is a sudden occurrence of a serious and urgent nature, beyond normal maintenance of the existing pavement. Under this definition, an emergency mobilization requires immediate action to move necessary personnel, equipment, and materials to the emergency site followed by immediate repairs of the existing pavement.

D Measurement

The department will measure Mobilizations Emergency Pavement Repair as each individual mobilization, 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.0060.05	Mobilizations Emergency Pavement Repair	Each

Payment is full compensation for the staged moving of personnel; moving equipment, setting up and removing traffic control, traffic control materials, and for moving materials. The department will pay separately for delivery and installation of pavement repair materials under the other bid items in this contract. The department will not pay separately for traffic control items even though they may be included in other bid items in this contract and will consider them incidental to each mobilization.

59. Fire Hydrant Sign Mounting, Item SPV.0060.06.

A Description

This special provision describes installing fire hydrant signs in accordance to the plan details, in accordance to standard spec 637, and as hereinafter provided.

B Materials

B.1 Signs

The signs and associated material indicated will consist of the following:

1. Sign Blade. The blade shall be 36” x 6”, flat aluminum to accommodate two-sided reflective sheeting.
2. Mount. The mount shall be a full surround bracket w/o divider, to fit a 36” x 6” blade.
3. Fire Hydrant sign – mounted on wall, parallel to wall.

B.2 Mount

Select a mount from one of the sources shown below or an approved equal.

Supplier	**Model Number**
TAPCO 800 Wall Street Elm Grove, WI 53122	203-17

Traffic Signal Company of Wisconsin 6318 West State Street Wauwatosa, WI 53213	203-17
Decker Supply P.O. Box 8008 Madison, WI 53708	W-800

B.3 Mounting Hardware for Blade Signs

Mount the signs to the sound wall with four 5/16-inch diameter stainless steel bolts with stainless steel self-tightening nuts connecting the two mounting brackets through the wall. Install one sign in each plate, such that both signs are perpendicular to the sound wall on either side of the wall. Mount fire hydrant signs using 5/16-inch diameter stainless steel bolts with stainless steel self-tightening nuts connecting the sign to the wall.

C Construction

Install the signs by drilling four 7/16-inch diameter holes through the noise barrier panel to match hole locations on the mounting brackets to be attached on each side of the panel. Attach the mount to the sound wall in a stable position, not more than two feet from the top of the structure. The mount will not be more than 5 feet on either side of a vertical line extending up from the actual fire hydrant access point depending on field conditions.

D Measurement

The department will measure Fire Hydrant Sign Mounting as a unit for each individual sign, 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.0060.06	Fire Hydrant Sign Mounting	Each

Payment is full compensation for providing all materials including hardware and reflective sheeting; and for drilling holes and anchors. The sign is paid for separately under the Signs Reflective Type II.

60. Traffic Control Close-Open Freeway Entrance Ramp, Item SPV.0060.07.

A Description

Furnish all required labor, material and equipment for closing and subsequently opening, or opening and subsequently closing, on-ramp entrances in accordance to standard spec 643, the plans, as directed by the engineer, and as hereinafter provided.

B (Vacant)

C Construction
Post all ramp closures 3 working days in advance of their closure with dates and time of closure. Drums, barricades, and signs may remain along the roadway when the entrance ramp is open to traffic. Inappropriate signs, dates, or times shall not be visible to traffic when the ramp is open. A deduction of one each will be made from the project total for this item for each day any inappropriate sign is visible to traffic when the ramp is open.

Drums, barricades, arrow boards, and signs will be paid for separately under the various traffic control items.

D Measurement
The department will measure Traffic Control Close-Open Freeway Entrance Ramp as a unit, every time freeway entrance ramp is set up and subsequently removed within a 24-hour period, 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.0060.07	Traffic Control Close-Open Freeway Entrance Ramp	Each

Payment is full compensation for providing and placing all materials excluding the cost for the materials themselves. Drums, Barricades, Signs, and Arrow Boards will be paid for under separate items in the contract.

61. Traffic Control Interim Freeway Lane Closure, Item SPV.0060.08.

A Description
This special provision describes Traffic Control Interim Freeway Lane Closure.

B (Vacant)

C Construction
Adjust as necessary existing traffic control items that are in place on the freeway, set up additional traffic control items for temporary closing a freeway lane, and then readjust the traffic control items to their original state or position after removing the freeway lane closure, all within a 24-hour period, acceptably completed.

D Measurement
The department will measure Traffic Control Interim Freeway Lane Closure as a unit, every time freeway lane closure is set up and subsequently removed, per direction of traffic within a 24-hour period, 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.0060.08	Traffic Control Interim Freeway Lane Closure	Each

Payment is full compensation for providing and placing all materials except for the traffic control items Drums, Barricades, Signs, and Arrow Boards, which are paid for under separate items in the contract.

62. Pavement Marking Grooved Preformed Thermoplastic Arrows Type 5, Item SPV.0060.09.

A Description

This special provision describes grooving the pavement surface, and furnishing and installing preformed thermoplastic pavement marking as shown on the plans, in accordance to standard spec 647, and as hereinafter provided.

B Materials

Furnish preformed thermoplastic pavement marking and sealant material, if required, from the department's approved products list.

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 preformed thermoplastic pavement marking.

Plane the grooved lines in accordance to the plan details. 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 120 mils ±10 mils deeper than the thermoplastic thickness, 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 thermoplastic.

C.4 Groove Position

Position the groove edge in accordance to the plan details.

C.4.1 Linear Marking
Groove at a minimum of 4-inches, but not greater than, 12-inches from both ends of the line segment. Achieve straight alignment with the grooving equipment.

C.4.2 Special Marking
Groove a box around the special marking up to 4 inches from the perimeter of the special marking.

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. 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, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the sealant, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft3/min air flow and 90 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 10 or more days after paving. Use a high-pressure air blower with at least 185 ft3/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.

C.5.4 Asphalt
Use a high-pressure air blower with at least 185 ft3/min air flow and 90 psi air pressure to clean the groove.

C.6 Preformed Thermoplastic Application
Preheat the surface if necessary based on manufacturer's recommendation.

Application of the preformed thermoplastic in the groove without sealant will be as follows:

- May 1 to September 30, both dates inclusive – the Southeast Region and the ozone non-attainment or maintenance Northeast Region counties of Sheboygan, Manitowoc, Kewaunee, and Door.
- June 1 to August 31 – the Southwest Region, and the Northeast, North Central, and Northwest Regions except for the ozone non-attainment or maintenance Northeast Region counties of Sheboygan, Manitowoc, Kewaunee, and Door.

Application of the preformed thermoplastic in the groove with sealant materials will be as follows:

- October 1 to April 30, both dates inclusive – the Southeast Region and the ozone non-attainment or maintenance Northeast Region counties of Sheboygan, Manitowoc, Kewaunee, and Door.
- September 1 to May 31, both dates inclusive – the Southwest Region and the Northeast, North Central, and Northwest Regions, except for the ozone non-attainment or maintenance Northeast Region counties of Sheboygan, Manitowoc, Kewaunee, and Door.

The sealant must be wet.

D Measurement

The department will measure Pavement Marking Grooved Preformed Thermoplastic Arrows Type 5 by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 5	Each

Payment is full compensation for cleaning and preparing the pavement surface, and furnishing and installing the material.

63. Wireless Traffic Sensor, Item SPV.0060.10.

A Description

This special provision describes furnishing and installing flush-mount wireless sensors in pavement to detect monitor vehicles.

B Materials

For the wireless sensor, use device that mounts flush to pavement, 16 frequency channels available, with 128 Hz sampling rate, auto-calibration, and 2-way radio communications.

Integrate the wireless sensor node with the access point box and repeater device.

C Construction

Install contractor-furnished wireless sensors at locations the plans show.

Core or drill hole in pavement and vacuum or brush the hole clear of dust and debris.

Apply epoxy to the bottom of the hole to a depth approximately 1/3 of hole total depth

Install sensor in pavement at least 4” (10 cm) in diameter and 2 ¼” (5.7 cm) deep using a hammer or core drill.

Fill the hole with epoxy, completely covering the sensor and its shell.

Take every precaution to ensure that the sensor node is not damaged during storage or installation.

The contractor or field system integrator shall furnish all equipment, appliances, and labor necessary to test the installed sensor node.

Make all communications connections between the wireless sensor mode, access point and repeater, as required to provide a fully operational detection system.

After the wireless sensor node has been installed, and all other sensor equipment has been installed, the ATMS field system integrator shall successfully perform a field test at the sensor location to verify the sensor is detecting vehicles and accurately relaying the information to the access point.

Furnish all test equipment.

Following successful completion of the test, activate the entire detection system and leave it on for 30 consecutive days. During this period, ensure that all materials and components of the sensor system furnished and installed operate as specified and without any failure.

In the event that any contractor-provided component of the sensor system malfunctions or operates below the level specified, the department will terminate the test period, and will require the ATMS field system integrator to determine and correct the problems, including repair or replacement of equipment, at no cost to the department. Upon correction of the problems, the engineer will start a new 30-day test period. If a malfunction is the result of equipment not installed by the contractor, the engineer will suspend the acceptance test period until the responsible party corrects these problems.

D Measurement

The department will measure Wireless Traffic Sensor as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Wireless Traffic Sensor	Each

Payment for Wireless Traffic Sensor is full compensation for furnishing and installing all materials, necessary to completely install the sensor node; and for installing identification plaques when required.

64. Wireless Traffic Sensor Access Point, Item SPV.0060.11.

A Description

This special provision describes furnishing and installing wireless traffic sensor access points, and outdoor rated Ethernet cable between the access point and the respective controller cabinet, on poles or other structures to maintain wireless communications to all sensors and repeaters assigned to it and relay the data to a roadside traffic controller or remote server.

B Materials

Furnish the access point, mounting hardware, and outdoor rated Ethernet cable.

Wireless Traffic Sensor Access Point shall conform to the following:

For the access point box, use device that mounts to a pole, sign or traffic signal, is wireless, has DC power input, and 2-way radio communications.

For the access point box, use weatherized Ethernet or CAT 5 cable for connection no more than 500 feet (150 meters) long.

The access point box shall have a rack-mounted interface for a 2070 controller

Integrate the access point box with the wireless traffic sensors and repeater devices.

C Construction

Install contractor-furnished access point at locations the plans show.

Install access point box as manufacturer instructions show.

Take every precaution to ensure that the access point box is not damaged during storage or installation.

The contractor or field system integrator shall furnish all equipment, appliances, and labor necessary to test the installed access point box. Successfully perform the following tests before.

Install the required cable between the access point and the controller cabinet.

Make all communications connections between the wireless sensor mode, access point and repeater, as required to provide a fully operational detection system.

After the access point box has been installed, and all other sensor equipment has been installed, the ATMS field system integrator shall successfully perform a field test at the sensor location to verify the sensor is detecting vehicles and accurately relaying the information to the access point.

Furnish all test equipment.

Following successful completion of the test, activate the entire detection system and leave it on for 30 consecutive days. During this period, ensure that all materials and components of the sensor system furnished and installed operate as specified and without any failure.

In the event that any contractor-provided component of the sensor system malfunctions or operates below the level specified, the department will terminate the test period, and will require the ATMS field system integrator to determine and correct the problems, including repair or replacement of equipment, at no cost to the department. Upon correction of the problems, the engineer will start a new 30-day test period. If a malfunction is the result of equipment not installed by the contractor, the engineer will suspend the acceptance test period until the responsible party corrects these problems.

D Measurement

The department will measure Wireless Traffic Sensor Access Point as each individual unit, acceptably completed.

E. Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.11	Wireless Traffic Sensor Access Point	Each

Payment for Wireless Traffic Sensor Access Point is full compensation for furnishing and installing all materials necessary to completely install the access point, including the network cable from the access point to the controller cabinet.

65. Wireless Traffic Sensor Repeater, Item SPV.0060.12.

A Description

This special provision describes furnishing and installing a repeater to extend the range of coverage between the sensor nodes and access point.

B Materials

Under the Wireless Traffic Sensor Repeater bid item, use device that mounts to a pole, sign or traffic signal, has a battery life of at least two years, 16 frequency channels available, ability to handle 10 sensors per application, and can communicate with the access point at a range up to 1,000 feet (305 meters). Integrate the repeater device with the wireless sensor node and the access point box.

C Construction

Install contractor-furnished repeater at locations the plans show.

Install access point box as manufacturer instructions show.

Take every precaution to ensure that the sensor node is not damaged during storage or installation.

The contractor or field system integrator shall furnish all equipment, appliances, and labor necessary to test the installed sensor node.

Make all communications connections between the wireless sensor mode, access point and repeater, as required to provide a fully operational detection system.

After the repeater has been installed, and all other sensor equipment has been installed, the ATMS field system integrator shall successfully perform a field test at the sensor location to verify the sensor is detecting vehicles and accurately relaying the information to the access point.

Furnish all test equipment.

Following successful completion of the test, activate the entire detection system and leave it on for 30 consecutive days. During this period, ensure that all materials and components of the sensor system furnished and installed operate as specified and without any failure.

In the event that any contractor-provided component of the sensor system malfunctions or operates below the level specified, the department will terminate the test period, and will require the ATMS field system integrator to determine and correct the problems, including repair or replacement of equipment, at no cost to the department. Upon correction of the problems, the engineer will start a new 30-day test period. If a malfunction is the result of equipment not installed by the contractor, the engineer will suspend the acceptance test period until the responsible party corrects these problems.

D Measurement

The department will measure Wireless Traffic Sensor Repeater as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Wireless Traffic Repeater	Each

Payment for Install Repeater is full compensation for furnishing and installing all materials, necessary to completely install the sensor node; and for installing identification plaques when required.

66. Wireless Traffic Sensor Contact Closure Module, Item SPV.0060.13.

A Description

This special provision describes furnishing and installing an expansion card to handle more sensors per application.

B Materials

Furnish the expansion card.

Integrate the expansion card with the repeater device, wireless sensor node and the access point box.

C Construction

Install contractor-furnished expansion card at locations the plans show.

Install expansion card as manufacturer instructions show.

Take every precaution to ensure that the expansion card is not damaged during storage or installation.

The contractor or field system integrator shall furnish all equipment, appliances, and labor necessary to test the installed expansion card.

Make all communications connections between the expansion card, wireless sensor mode, access point and repeater, as required to provide a fully operational detection system.

After the expansion card has been installed, and all other sensor equipment has been installed, the ATMS field system integrator shall successfully perform a field test at the sensor location to verify the sensor is detecting vehicles and accurately relaying the information to the access point.

Furnish all test equipment.

Following successful completion of the test, activate the entire detection system and leave it on for 30 consecutive days. During this period, ensure that all materials and components of the sensor system furnished and installed operate as specified and without any failure.

In the event that any contractor-provided component of the sensor system malfunctions or operates below the level specified, the department will terminate the test period, and will require the ATMS field system integrator to determine and correct the problems, including repair or replacement of equipment, at no cost to the department. Upon

correction of the problems, the engineer will start a new 30-day test period. If a malfunction is the result of equipment not installed by the contractor, the engineer will suspend the acceptance test period until the responsible party corrects these problems.

D Measurement

The department will measure Wireless Traffic Sensor Contact Closure Module as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.13	Wireless Traffic Sensor Contact Closure Module	Each

Payment for Wireless Traffic Sensor Contact Closure Module and Expansion Module is full compensation for installing all materials, necessary to completely install the module and extension module; and for installing identification plaques when required.

67. Removing Ramp Control Signal Assembly Sidemount, Item SPV.0060.14; Removing Ramp Control Signal Assembly Overhead, Item SPV.0060.15.

A Description

This special provision describes removing an existing sidemount ramp control signal assembly.

B Materials

Materials included in sidemount ramp control signal assemblies are:

1. Traffic signal standards.
2. Pedestal bases for traffic signal use.
3. Vehicular traffic signal heads.
4. Signal mounting brackets.
5. Sign mounting brackets.
6. Enforcement signal displays.

Materials included in overhead ramp control signal assemblies are:

1. Vehicular traffic signal heads.
2. Signal mounting brackets.
3. Sign mounting brackets.

C Construction

Remove ramp control signal assemblies at the locations shown in the plans, or as directed by the engineer. Salvage the signal assemblies for the department to pick up, or dispose of them properly as directed by the engineer.

All work shall be in accordance to the applicable requirements of standard spec 655, 656, 657, and 658, the Wisconsin Electrical Code, these special provisions, and the details shown in the plans.

Salvage and store all removed materials for pickup by the department. Coordinate with the engineer on a schedule to have the removed items picked up. Maintain all materials in a condition suitable for reutilization. Replace all items damaged during construction operations.

Electrical work under this item shall be completed by a journeyman electrician or be completed under the supervision of a journeyman electrician. Legal status or standing as a journeyman electrician shall be certified or otherwise documented to the engineer before any electrical work may begin.

D Measurement

The department will measure Removing Ramp Control Signal Assembly Sidemount and Removing Ramp Control Signal Assembly Overhead by each individual removed 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.0060.14	Removing Ramp Control Signal Assembly Sidemount	Each
SPV.0060.15	Removing Ramp Control Signal Assembly Overhead	Each

Payment is full compensation for removal and storage of the ramp control signal assembly; disconnecting all wiring connections; removing all conduit connections; and for any necessary restoration, including backfill, topsoil, and seeding.

68. Refocus Microwave Vehicle Detector Assembly, Item SPV.0060.16.

A Description

This special provision describes refocusing an existing microwave detector for operation with a new lane configuration.

B Materials

Materials include existing or newly installed Electronic Integrated Systems, Inc. (EIS) Remote Traffic Microwave Sensor (RTMS)

C Construction

Coordinate all planned down-time of the temporary vehicle detector assembly with the STOC at (414) 227-2166. Notify the STOC an amount of time ahead of planned down-time equal to the planned down-time. Examples would be that a 4-hour temporary down-time of the system would require notification 4-hours ahead of time while an 8-hour planned down-time would require 8-hours of advance notification.

Verify to the satisfaction of the engineer that the existing detector assembly is working properly. Inspect the vehicle detector assembly for damage.

Reinstall the RTMS detector as required in standard spec 675. Additionally, integrate the integral serial communications radio with the radio installed at the base-station field cabinet, and return the TVDA to operation.

D Measurement
The department will measure Refocusing Temporary Vehicle Detector Assembly by each individual refocused unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.16	Refocus Microwave Vehicle Detector Assembly	Each

Payment is full compensation for making the detector fully operational with a new lane configuration.

69. Utility Line Opening, Item SPV.0060.17.

A Description
Excavate to uncover utilities for the purpose of determining elevation and potential conflicts as shown on the plans or as directed by the engineer.

Excavate 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 (ULO) as soon as possible and at least 10 days in advance of proposed utility 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 shall be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings shall include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

All utility line openings shall be approved and coordinated with the engineer. Notify the utility field engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed. The need for performing ULO's as shown on the plans shall be verified since some of the utilities may have been relocated prior to the start of construction.

B (Vacant)

C Construction
It is recommended the contractor use "pot holing" technology to perform this work.

D Measurement
The department will measure Utility Line Opening as each individual ULO, acceptably completed. There shall be only one unit paid per ULO.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.17	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 cleanup.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings shall not be considered part of or paid for under Utility Line Openings, but shall be considered separate and measured and paid for separately as removal items. Replacement pavement, concrete curb, gutter, and sidewalk items shall also be considered separate from Utility Line Openings and will be measured and paid for separately.

70. Corrosion Inhibiting Protective Coating, Item SPV.0070.01.

A Description
This special provision describes the special clear protective coating applied to the concrete surface areas of the bridge substructure as noted in this special provision, as directed by the engineer, and in accordance to standard spec 502 and 509.

B Materials
Furnish BASF MASTERSEAL CP corrosion-inhibiting coating system for completion of this work. Supply the engineer with all product data sheets before application of the coating system.

C Construction
C.1 General
Perform the work in accordance to standard spec 502.3.15 or as specified in this special provision. Follow all preparation, application, storage, handling, safety, and all other procedures required for use as listed or described in the product data sheets.

C.2 Location
Apply MASTERSEAL CP to all exposed pier and abutment surfaces within 12 feet of roadway or as noted on the plans.

C.3 Surface Preparation
Remove all delaminated/loose concrete and repair all surface spalls as specified in the contract in accordance to standard spec 509.3.7. Seal all concrete cracks as specified in the contract. Clean concrete surface by shot blasting, sandblasting, water blasting, grinding, or chemical cleaning; and remove all traces of dirt, dust, efflorescence, mold, grease, oil, asphalt, laitance, paint, coatings, curing compounds, and other foreign materials that would inhibit penetration.

C.4 Coating Application
Apply coating to the entire concrete surface, including repaired areas, in a multiple coat application in accordance to the manufacturer's specifications. Allow a minimum of 15 minutes (or until visibly dry) between coats. Apply the coating at a rate of one gallon per 200 square feet. A minimum of 2 coats of equal thickness shall be applied to the surface.

The substrate shall be as dry as practical prior to application. Depending on weather conditions allow 24 to 72 hours for the substrate to dry after rain or cleaning with water.

Do not apply if rain is expected within four hours following application, or if high winds or other conditions prevent proper application.

D Measurement
The department will measure Corrosion Inhibiting Protective Coating by the gallon, acceptably completed, final coating. The quantity measured equals the actual number of gallons uses to treat the piers and abutments.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0070.01	Corrosion Inhibiting Protective Coating	GAL

Payment for Corrosion Inhibiting Protective Coating is full compensation for providing and applying the coating, including surface preparation.

71. Pavement Cleanup, Item SPV.0075.01.

A Description
This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site.

B Materials
Furnish street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Provide vacuum equipment having a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

C Construction

C.1 Pavement Cleanup

Keep all pavements both closed and open to public traffic within the jobsite boundaries free of dust and debris generated from any activity under the contract. Keep all pavements adjacent to the project free of dust and debris that are affected by land disturbing, dust generating activities, as defined in the contractor's dust control implementation plan.

Provide surveillance to identify if material is being tracked from the jobsite. Clean up spillage and material tracked from the project within an hour of occurrence. Perform cleanup operations in a safe manner.

Provide routine pavement sweeping of asphaltic and concrete pavements both within and adjacent to the project, 2 times daily for a minimum of one hour Each sweeping operation, whenever land disturbing, dust-generating activities are occurring, unless the engineer directs or approves otherwise.

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to deal with dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Respond to emergency sweeping requests within 24 hours.

Conduct all sweeping, to the extent that is practical, using street sweepers. Ensure that the water spray, particulate collector, and vacuum systems are on and functioning properly. Where size or weight restrictions preclude using street sweepers, the contractor may employ dry sweeping equipment with a vacuum system on and functioning properly. Use manual wet sweeping to cover areas inaccessible to power equipment.

D Measurement

The department will measure Pavement Cleanup by the hour, acceptably completed. The department will only measure clean up activity approved as part of the contractor's dust control implementation plan.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.01	Pavement Cleanup	HRS

Payment is full compensation for surveillance, mobilization, sweeping, and properly disposing of materials.

72. Fence Temporary, Item SPV.0090.01.

A Description

This work includes furnishing, erecting, maintaining and removing temporary chain link fence including gates, as shown on the plans and as directed by the engineer, in accordance to standard spec 616, and as hereinafter provided. The intent of this specification is to provide a secure enclosure.

B Materials

Fencing parts furnished do not have to be new materials. Used, re-rolled and open seam materials will be permitted. Gates shall be a minimum of 12-feet wide.

No specific metallic coating will be required for the chain link fencing materials. Materials furnished do not have to be of the same type. Fence height shall be a minimum of 6 feet.

The engineer may reject fencing materials which, in the engineer's opinion, are too damaged or misaligned to provide acceptable closure.

C Construction

Fence posts may be driven into the ground or set in augered holes, backfilled and compacted. Embed the fence posts a minimum of 4 feet. In paved areas, fasten fence posts to either temporary concrete barrier or the pavement by methods ensuring a secure enclosure. Where fence is installed in areas that are not to be disturbed by subsequent construction activities, restore the disturbed area in kind at no additional cost to the department.

Work under this item shall include maintenance and removal of the temporary fence.

D Measurement

The department will measure Fence Temporary in place in length by the linear foot from end posts, center-to-center, along the ground line, acceptably completed. Temporary fence will be measured once for payment. Additional measurement for fence maintenance and removal will not be made.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Fence Temporary	LF

Payment is full compensation for furnishing all materials; erecting posts, gates and fence; maintaining fencing; removing and disposing of fencing; and for restoring disturbed areas.

Work under this item shall include maintenance and removal of the temporary fence.

73. Remove Pavement Marking Grooved Tape, Item SPV.0090.02.

A Description
This special provision describes removing groove wet reflective tape in accordance to specification standard spec 646.3.4 and as herein provided.

B Materials
Provide necessary materials to remove the marking completely.

C Construction
Remove the markings completely.

D Measurement
The department will measure Remove Pavement Marking Grooved Tape by the linear foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Remove Pavement Marking Grooved Tape	LF

Payment is full compensation for removing pavement marking.

74. Removing Sign Bridge S-40-92, Item SPV.0105.01; S-40-94, Item SPV.0105.02; S-40-95, Item SPV.0105.03.

A Description
This special provision describes removing the overhead sign post, the footings and all landscaping necessary to restore the disturbed site from construction activity, at the location shown on the plans, as directed by the engineer, and as hereinafter provided.

B (Vacant)

C Construction
Any erosion control necessary as directed by the engineer shall be installed per the requirements of standard spec 628.

Do not remove the existing overhead sign post until the new overhead sign has been installed.

Remove the concrete footings and concrete drilled shafts in accordance to standard spec 204.

Properly dispose of all components including the sign post, chords, anchor rods, concrete footings, and drilled shafts off the project site.

Restore all areas disturbed by construction activities to the original grade lines with topsoil. All topsoil areas shall be seeded and mulched. Topsoil, seed, and mulch shall meet the requirements of standard spec 625, 630, and 627 respectively.

D Measurement

The department will measure Removing Sign Bridge (Structure) as a single lump sum unit of work for each sign bridge, 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.0105.01	Removing Sign Bridge S-40-92	LS
SPV.0105.02	Removing Sign Bridge S-40-94	LS
SPV.0105.03	Removing Bridge S-40-95	LS

Payment is full compensation for erosion control, disassembling and removing the overhead sign post and all attached components, removing the anchor rods, properly disposing of materials, and restoring areas disturbed by construction activities.

75. Install Expansion Device B-40-175, Item SPV.0105.04; B-40-176, Item SPV.0105.05; B-40-183, Item SPV.0105.06; B-40-184, Item SPV.0105.07; B-40-261, Item SPV.0105.08; B-40-262, Item SPV.0105.09; B-40-285-22A, Item SPV.0105.10; B-40-286-21, Item SPV.0105.11; B-40-286-24A, Item SPV.0105.12; B-40-286-24B, Item SPV.0105.13; B-40-286-24C, Item SPV.0105.14; B-40-286-24D, Item SPV.0105.15; B-40-286-26, Item SPV.0105.16; B-40-285-22B, Item SPV.0105.26; B-40-285-23A, Item SPV.0105.27; B-40-285-23B, Item SPV.0105.28; B-40-285-25A, Item SPV.0105.29; B-40-285-25B, Item SPV.0105.30; B-40-285-25C, Item SPV.0105.31; B-40-285-25D, Item SPV.0105.32; B-40-285-27A, Item SPV.0105.33; B-40-285-27B, Item SPV.0105.34.

A Description

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

B Materials

The steel procurement was completed under Project 1228-26-73 and all steel, neoprene strip seals, and incidental hardware is prepared for delivery.

C Construction

Install expansion devices and related hardware in accordance to standard spec 502 and as shown in the plans.

The steel fabrication was completed under Contract 1228-26-73 and all materials for expansion devices will be ready for delivery by February 18, 2013.

Provide written notice to the department three weeks prior to the date that the fabricated materials are required onsite. The delivery date must occur between February 18 and March 18, 2013. Include quantity of material, time of day, unloading location, crew and equipment needed, and any other pertinent delivery details in the written request to the department. The department will provide written notice to the steel fabrication contractor a minimum of two weeks in advance of the requested delivery date. Multiple deliveries may be necessary.

Store the steel and materials on pallets or blocking at the job site or by other means approved by the engineer, so that the steel does not directly rest on the ground and so that the various components do not fall or rest on each other. Support all material to prevent permanent distortion or damage. Prior to lifting and installation, clear of any foreign material that may have become attached. The site construction contractor – under Contract 1228-26-70 – is responsible for repair or replacement of damaged components or areas caused after delivery to the project site. Repairs, if necessary, are subject to acceptance by the engineer.

D Measurement

The department will measure Install Expansion Device (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 item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.04	Install Expansion Device B-40-175	LS
SPV.0105.05	Install Expansion Device B-40-176	LS
SPV.0105.06	Install Expansion Device B-40-183	LS
SPV.0105.07	Install Expansion Device B-40-184	LS
SPV.0105.08	Install Expansion Device B-40-261	LS
SPV.0105.09	Install Expansion Device B-40-262	LS
SPV.0105.10	Install Expansion Device B-40-285-22A	LS
SPV.0105.11	Install Expansion Device B-40-286-21	LS
SPV.0105.12	Install Expansion Device B-40-286-24A	LS
SPV.0105.13	Install Expansion Device B-40-286-24B	LS
SPV.0105.14	Install Expansion Device B-40-286-24C	LS
SPV.0105.15	Install Expansion Device B-40-286-24D	LS
SPV.0105.16	Install Expansion Device B-40-286-26	LS
SPV.0105.26	Install Expansion Device B-40-285-22B	LS

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.27	Install Expansion Device B-40-285-23A	LS
SPV.0105.28	Install Expansion Device B-40-285-23B	LS
SPV.0105.29	Install Expansion Device B-40-285-25A	LS
SPV.0105.30	Install Expansion Device B-40-285-25B	LS
SPV.0105.31	Install Expansion Device B-40-285-25C	LS
SPV.0105.32	Install Expansion Device B-40-285-25D	LS
SPV.0105.33	Install Expansion Device B-40-285-27A	LS
SPV.0105.34	Install Expansion Device B-40-285-27B	LS

Payment is full compensation for unloading delivered expansion devices and materials; storing and protecting the accepted and delivered expansion devices and materials at the project site; for repair or replacement of expansion devices damaged after delivery; and for installing the expansion devices.

76. Install Expansion Device Modular B-40-175, Item SPV.0105.17; B-40-176, Item SPV.0105.18; B-40-184, Item SPV.0105.19; B-40-285-27C, Item SPV.0105.20; B-40-285-27D, Item SPV.0105.21; B-40-285-27E1, Item SPV.0105.22; B-40-285-27E2, Item SPV.0105.23; B-40-285-27F1, Item SPV.0105.24; B-40-285-27F2, Item SPV.0105.25.

A Description

This special provision describes installing a shop-fabricated waterproof modular expansion device in accordance to standard spec 502, the plans, and as hereinafter provided. The modular expansion joint device shall seal the deck surface, curbs, gutters, and parapet walls as indicated on the plans. Any leaking or seeping of water through the joint will be cause for rejection of the modular expansion device.

B Materials

The steel procurement was completed under Project 1228-26-73 and all steel, neoprene strip seals, and incidental hardware is prepared for delivery.

C Construction

C.1 General

Install expansion devices and related hardware in accordance to standard spec 502, as shown in the plans, and has specified herein.

The manufacturer of the prefabricated expansion joint assembly shall prepare shop drawings showing details of the assembly and installation.

Support the modular joint assembly at 8’-0 minimum spacing along both sides of the joint. Construct the modular expansion device system in accordance to the details shown on the shop drawings. Tolerance requirements shall be in accordance to AASHTO specifications.

Install in accordance to the plan details, the manufacturer's and supplier's approved shop drawings, and as directed by the engineer. In addition, the manufacturer shall submit current product literature with the shop drawings and the shop drawings shall reflect that literature.

Remove all modular expansion joint forming material from the joint opening. Pre-set the modular joint assembly in accordance to the approved shop drawings, joint temperature setting data, and specifications. The maximum joint opening for a single modular unit shall be 3 inches.

The joint assembly manufacturer shall furnish technical assistance to the contractor and engineer through the personal services of a technical representative, who is a fulltime employee of the manufacturer during installation of the joint sealing systems. This representative shall be accessible to the engineer and shall be at the site during the work that involves the setting of all parts of each modular expansion joint assembly. The contractor shall be responsible for informing the representative prior to the date of installation.

C.2 Delivery

The steel fabrication was completed under Contract 1228-26-73 and all materials for expansion devices will be ready for delivery by February 18, 2013.

Provide written notice to the department three weeks prior to the date that the fabricated materials are required onsite. The delivery date must occur between February 18 and March 18, 2013. Include quantity of material, time of day, unloading location, crew and equipment needed, and any other pertinent delivery details in the written request to the department. The department will provide written notice to the steel fabrication contractor a minimum of two weeks in advance of the requested delivery date. Multiple deliveries may be necessary.

Store the steel and materials on pallets or blocking at the job site or by other means approved by the engineer, so that the steel does not directly rest on the ground and so that the various components do not fall or rest on each other. Support all material to prevent permanent distortion or damage. Prior to lifting and installation, clear of any foreign material that may have become attached. The site construction contractor – under Contract 1228-26-70 – is responsible for repair or replacement of damaged components or areas caused after delivery to the project site. Repairs, if necessary, are subject to acceptance by the engineer.

D Measurement

The department will measure Install Expansion Device Modular (Structure) as a single lump sum unit of work for the structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.17	Install Expansion Device Modular B-40-175	LS
SPV.0105.18	Install Expansion Device Modular B-40-176	LS
SPV.0105.19	Install Expansion Device Modular B-40-184	LS
SPV.0105.20	Install Expansion Device Modular B-40-285-27C	LS
SPV.0105.21	Install Expansion Device Modular B-40-285-27D	LS
SPV.0105.22	Install Expansion Device Modular B-40-285-27E1	LS
SPV.0105.23	Install Expansion Device Modular B-40-285-27E2	LS
SPV.0105.24	Install Expansion Device Modular B-40-285-27F1	LS
SPV.0105.25	Install Expansion Device Modular B-40-285-27F2	LS

Payment is full compensation for unloading delivered expansion devices and materials; storing and protecting the accepted and delivered expansion devices and materials at the project site; for repair or replacement of expansion devices damaged after delivery; placing the device complete in place; completely installing all elements and parts of the joints, anchors, armor or structural metal; galvanizing materials; and for installing all hardware, pads, bonding material, and reinforcing bars within the blockout not otherwise covered for payment, and barrier railing plates.

77. Cathodic Protection, Item SPV.0165.01.

A Description

This special provision describes the cathodic protection system to be provided in areas of concrete surface repair performed on the bridge substructure as noted in the contract plans, as directed by the engineer, and in accordance to standard spec 502 and 509. The protection consists of embedded galvanic anodes attached to existing or new rebar and placed within the perimeter of the concrete surface repair patch area.

B Materials

Embedded galvanic anodes shall be of similar size, with minimal dimensions: 2.5 in. long by 3.0 in. wide by 1.0 in. deep, pre-manufactured, consisting of a minimum of 2.0 oz. of zinc in compliance with ASTM B418 Type II (Z13000) cast around a pair of heat treated, uncoated steel tie wires and encased in a highly alkaline cementitious shell with a pH of 14 or greater. The anode unit shall contain no added sulfate nor shall it contain chloride, bromide or other constituents that are corrosive to reinforcing steel. Anode units shall be supplied with integral unspliced wires with loop ties for directly tying to the reinforcing steel.

Repair mortars, concrete and bonding agents shall be Portland cement-based materials with suitable electrical conductivity less than 20,000 ohm-cm. Non-conductive repair materials such as epoxy, urethane, or magnesium phosphate shall not be permitted.

Deformed bars for reinforcement shall be hot-rolled steel in accordance to ASTM A615/A615M, Grade 60 (Grade 400).

Deliver, store, and handle all materials in accordance to manufacturer’s instructions.

C Construction

C.1 General

Perform the work in accordance to standard spec 509.3.7 or as specified in this special provision. Follow all preparation, application, storage, handling, safety, and all other procedures required for use as listed or described in the product data sheets.

C.2 Location

Install galvanic anodes at concrete surface repair locations where the depth of repair extends below the first mat of rebar, and where repair and installation requirements as specified by the galvanic anode manufacturer and in this special provision will be met, as directed by the engineer.

C.3 Concrete Removal

Remove loose or delaminated concrete.

Undercut all exposed reinforcing by removing concrete from the full circumference of the steel as per ICRI R310.1R. The minimum clearance between the concrete substrate and reinforcing steel shall be ¾ inch or ¼ inch larger than the top size aggregate in the repair material, whichever is greater.

Concrete removal shall continue along the reinforcing steel until there are no visible signs of corrosion as per ICRI R310.1R.

C.4 Cleaning and Repair of Reinforcing Steel

Clean exposed reinforcing steel of rust, mortar, etc. to provide sufficient electrical connection and mechanical bond.

If significant reduction in the cross section of the reinforcing steel has occurred, replace or install supplemental reinforcement as directed by the engineer.

Secure loose reinforcing steel by tying tightly to other bars with steel tie wire.

C.5 Edge and Surface Conditioning of Concrete

Concrete patches shall be square or rectangular in shape with squared corners.

Saw cut the patch boundary ½ inch deep or less if required to avoid cutting reinforcing steel.

Create a clean, sound substrate by removing bond-inhibiting materials from the concrete substrate by high pressure water blasting or abrasive blasting.

C.6 Galvanic Anode Installation

Install anode units and repair material immediately following preparation and cleaning of the steel reinforcement.

Galvanic anodes shall be installed along the perimeter of the repair or interface at a spacing that meets the manufacturer's definition of high corrosion risk, with a maximum spacing of 30-in, specified by the manufacturer and as directed by the engineer. Anode spacing will vary with changes in the reinforcing steel density.

Place the galvanic anodes as close as possible to the patch edge while providing sufficient clearance between anodes and substrate to allow repair material to encase anode.

The tie wires shall be wrapped around the cleaned reinforcing steel multiple times in opposite directions and then twisted tight using a rebar tie wire twisting tool or pliers to allow little or no anode movement during concrete placement.

- If less than 1 inch of concrete cover is expected, place anode beside or beneath the bar and secure to clean reinforcing steel. The minimum amount of cover for the anode is 3/4-in.
- If sufficient concrete cover exists, the anode may be placed along a single bar or at the intersection between two bars and secured to each clean bar.

C.7 Electrical Continuity

Confirm electrical connection between anode tie wire and reinforcing steel by measuring DC resistance (ohm) or potential (mV) with a multi-meter.

Electrical connection is acceptable if the DC resistance measured with multi-meter is less than 1 ohm or the DC potential is less than 1 mV.

Confirm electrical continuity of the exposed reinforcing steel within the repair area. If necessary, electrical continuity shall be established with steel tie wire.

Electrical continuity between test areas is acceptable if the DC resistance measured with multi-meter is less than 1 ohm or the potential is less than 1 mV.

C.8 Concrete or Mortar Replacement

Pre-wet the concrete surface and the anode units to achieve a saturated surface dry condition, and then complete the repair. Do not soak the anode units for greater than 20 minutes.

Repair materials with significant polymer modification and/or silica fume content may have high resistivity. Similarly, if bonding agents are used, they shall have suitable conductivity. Insulating materials such as epoxy bonding agents shall not be used unless otherwise called for in the design.

Following normal concrete repair procedures complete the repair with the repair material, taking care not to create any air voids around the anode.

D Measurement

The department will measure Cathodic Protection by the square foot, acceptably completed, measured as the exposed surface area, following removal and installation of the anodes, as delineated by the saw cuts.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Cathodic Protection	SF

Payment for Cathodic Protection is full compensation for providing and installing the anodes, including surface preparation.

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 10 *(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 6 *(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 PROGRAM

1. Description

General

a. The disadvantaged business enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. The department's DBE goal is shown on the cover of the bidding proposal. The contractor can meet the specified contract DBE goal by procuring services or materials from a DBE or by subcontracting work to 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.

b. 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.

c. The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

d. For information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at:

   http://www.dot.wisconsin.gov/business/engrserv/dbe-main.htm

2. Definitions

a. Interpret these terms, used throughout this additional special provision, as follows:

   i. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.
   ii. **DBE:** A disadvantaged business enterprise (DBE) certified as a DBE by the department and included on the department's list of certified DBE's who are determined to be ready, willing and able.
   iii. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.
   iv. **Discretionary Goal:** A contractor assigned DBE goal, typically abbreviated as “Disc” on the cover of the Highway Work Proposal, which is enforced as committed.
   v. **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.
   vi. **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.
   vii. **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, including projects with discretionary goals. 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. 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. Department's DBE Evaluation Process

a. Documentation Submittal

Within 10 business days after the notification of contract award, 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] and all necessary attachment A forms, as well as, Good Faith Waiver Form [DT1202] and supporting documentation as necessary. If the contractor fails to furnish the required forms 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.

i. 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 achieved. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

ii. Bidder Does Not Meet DBE Goal

(1) 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 Waiver 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 waiver request.

(2) The department will review the bidder's good faith waiver request and notify the bidder of one of the following:

a. If the department grants a good faith waiver, the bid is eligible for contract execution with respect to DBE commitment.

b. If the department rejects the good faith waiver request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith waiver request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

5. Department's Criteria for Good Faith Effort

The Code of Federal Regulations {CFR}, 49 CFR Part 26-Appendix A, is the guiding regulation concerning good faith efforts. However, the federal regulations do not 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 process when making a determination of good faith.

a. The department will only grant a good faith waiver 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 waiver 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.

b. 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.

c. Prime Contractors should:

i. 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.

ii. 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.

(1) Solicit quotes through all reasonable and available means from certified DBE firms who match 'possible items to subcontract' and send copies to DBESS office, highlighting areas in which you are seeking quotes. Email is acceptable.

(2) 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 {ideally two Fridays before the letting} to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking them if they need help in putting together a quote, or helping to arrange for equipment needs, or solve other problems.

(3) Second solicitation should take place within 5 days

a. An email solicitation is highly recommended for this second solicitation

(4) 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.

(5) When potential exists, advise interested DBE firms on how to obtain bonding, line of credit or insurance as may be requested.

(6) 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. Copy of the DBE quotes
e. Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

d. Evaluate DBE quotes as documentation is critical if the prime does not utilize the DBE firm's quote for any reason.

i. 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 directly regarding their ability to perform the work indicated in the UCP directory as their work area [NAICS code]; only the work area and/or NAICS code listed in the UCP directory will be counted for DBE credit. Documentation of the conversation is required.

ii. In striving to meet a DBE conscious 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.

iii. **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.

(1) Compare bid items common to both quotes, noting the reasonableness in the price comparison.

(2) 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.

e. After notification of contract award, submit **'Commitment to Subcontract'** form within the time period specified in the contract.

i. Provide the following information along with department form DT1202:

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact. A printed copy of SBN solicitation is acceptable.

(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.

(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.

f. The department's DBE Support Services Office is available by phone, email or in writing to request assistance in meeting the DBE goal:

DBE Support Services Office
6150 Fond du Lac Ave.
Milwaukee, WI 53218
Phone: 414-438-4583 / 608-266-6961
Fax: 414-438-5392
E-mail: DOTDBESupportServices@dot.wi.gov

6. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith waiver request. 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 notice of rejection of a good faith waiver request under constitutes a forfeiture of the bidder's right of appeal. If the bidder does not appeal, the department may declare the bid ineligible for execution.

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 7 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.

7. Department's Criteria for DBE Participation

Department's DBE List

a. The department maintains a DBE list on the department's website at

http://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx

b. The DBE office is also available to assist at 414-438-4583 or 608-266-6961.

8. 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 the DBE's ability to perform the work with the use of the UCP directory.

9. Commercially Useful Function

a. The department counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

b. A DBE is performing a commercially useful function if the following conditions are met:

c. 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.

d. For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

10. Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at

http://www.dot.wisconsin.gov/business/engrserv/docs/dbe-trucking-notice.pdf

11. Manufacturers and Suppliers

The department counts material and supplies a DBE provides under the contract. The department will give full credit toward the DBE goal if the DBE is a manufacturer of those materials or supplies. The department will give 60 percent credit toward the DBE goal if the DBE is merely a supplier of those materials or supplies. 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.

12. DBE Prime

If the prime contractor is a DBE, the department will only count the work the contractor performs with its own forces, the work DBE subcontractors perform, and the work DBE suppliers or manufacturers perform.

13. 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.

14. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will credit the portion of the work performed by the DBE protégé firm

b. On every other project that the mentor protégé team identifies itself on.

c. For no more than one half of the total contracted DBE goal on any WisDOT project.

15. DBE Replacement

In the event a Prime Contractor needs to replace a DBE firm originally listed on the approved DBE Commitment Form DT1506, the Prime Contractor must comply with the department's DBE Replacement Policy located on the DBE page on the following web site:

http://www.dot.wisconsin.gov/business/engrserv/docs/policyreplacingdbe.pdf

16. Changes to the approved DBE Commitment Form DT1506

If there are any changes to the approved Commitment to Subcontract to DBE Form DT1506, the prime contractor must submit a revised DBE Commitment Form DT1506 and relevant attachment A(s) to the DBE Programs Office within 5 business days.

17. 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.

18. 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 alternative's 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 some one 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 alternative's 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 an 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 all Subcontractors. Within 10 calendar days of receipt by a contractor of a progress payment for work performed, materials furnished, or materials stockpiled by a subcontractor, the contractor shall pay that subcontractor for all work satisfactorily performed and for all materials furnished or stockpiled.

The contractor agrees further to release retainage amounts to each subcontractor within 10 calendar days after the subcontractor's work is satisfactorily completed. In addition, whenever the Department reduces the contract retainage amount, within 10 calendar days of receipt by a contractor of a retainage payment, the contractor must reduce the total amount retained from subcontractors to no more than remains retained by the Department.

The contractor shall pay the subcontractor within the time frames described above unless the contractor complies with both of the following within 10 calendar days of receiving the Department's progress payment:

1) The contractor notifies the subcontractor in writing that the work is not satisfactorily completed.
2) The contractor requests approval from the Department to delay payment because the subcontractor has not satisfactorily completed the work.

The contractor's request for approval should include the written notification to the subcontractor and shall provide sufficient documentation of good cause to assist the engineer in making a timely decision. If the engineer does not grant approval, the contractor shall pay the subcontractor within 10 calendar days of the Department's decision.

All subcontracting agreements made by a contractor shall include the above provisions and shall be binding on all contractors and subcontractors.

The contractor certifies compliance with the requirements of this Additional Special Provision by signing the contract. This clause applies to both DBE and non-DBE subcontractors.

ADDITIONAL SPECIAL PROVISION 6
MODIFICATIONS TO THE STANDARD SPECIFICATIONS

Make the following revisions to the 2013 edition of the standard specifications:

106.3.4.3.1 General

Replace paragraph two with the following effective with the November 2012 letting:

(2) Required sampling and testing methodologies and documentation are specified in CMM chapter 8.

(3) If disputed, approval of materials and components, as well as acceptance of the work incorporating those materials or components, is subject to review under the QMP dispute resolution process.

107.17.3 Railroad Insurance Requirements

Replace the entire text with the following effective with the August 2012 letting:

(1) If required by the special provisions, provide or arrange for a subcontractor to provide railroad protective liability insurance in addition to the types and limits of insurance required in 107.26. Keep railroad protective liability insurance coverage in force until completing all work, under or incidental to the contract, on the railroad right of way or premises of the railroad and until the department has accepted the work as specified in 105.11.2.4.

(2) Provide railroad protective liability insurance coverage written as specified in 23 CFR part 646 subpart A. Provide a separate policy for each railroad owning tracks on the project. Ensure that the railroad protective liability insurance policies provide the following minimum limits of coverage:

1. Coverage A, bodily injury liability and property damage liability; $2 million per occurrence.
2. Coverage B, physical damage to property liability; $2 million per occurrence.
3. An annual aggregate amount of $6 million that shall apply separately to each policy renewal or extension.

(3) Obtain coverage from insurance companies licensed to do business in Wisconsin that have an A.M. Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.

(4) Submit the following to each railroad owning tracks on the project as evidence of that railroad's respective coverage:

1. A certificate of insurance for the types and limits of insurance specified in 107.26.
2. The railroad protective liability insurance policy or other acceptable documentation to the railroad company.

(5) Submit the following to the region as evidence of the required coverage:

1. A copy of the letter to the railroad company transmitting the submittal documents specified in 107.17.3(4).
2. A certificate of insurance for the required railroad protective liability coverages.

(6) Do not begin work on the right of way or premises of the railroad company until the region receives the submittals specified in 107.17.3(5) and notification from the railroad company that the contractor has provided sufficient insurance information to begin work.

(7) Notify the railroad and the region immediately upon cancellation or initiating cancellation, whichever is earlier, or any material change in coverage. Cease operations within 50 feet of the railroad right of way immediately if insurance is cancelled or reduced. Do not resume operations until the required coverage is in force.

460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph four with the following effective with the December 2012 letting:

(4) The department will randomly test each design mixture at the following minimum frequency:

FOR TONNAGES TOTALING:	
Less than 501 tons	no tests required
From 501 to 5,000 tons	one test
More than 5,000 tons	add one test for each additional 5,000-ton increment

501.2.5.5 Sampling and Testing

Replace the entire text with the following effective with the January 2013 letting:

(1) Sample and test aggregates for concrete according to the following:

Sampling aggregates	AASHTO T2
Lightweight pieces in aggregate	AASHTO T113
Material finer than No. 200 sieve	AASHTO T11
Unit weight of aggregate	AASHTO T19
Organic impurities in sands	AASHTO T21
Sieve analysis of aggregates	AASHTO T27
Effect of organic impurities in fine aggregate	AASHTO T71
Los Angeles abrasion of coarse aggregate	AASHTO T96
Freeze-thaw soundness of coarse aggregate	AASHTO T103
Sodium sulfate soundness of aggregates	AASHTO T104
Specific gravity and absorption of fine aggregate	AASHTO T84
Specific gravity and absorption of coarse aggregate	AASHTO T85
Flat & elongated pieces based on a 3:1 ratio	ASTM D4791[1]
Sampling fresh concrete	AASHTO R60
Making and curing concrete compressive strength test specimens	AASHTO T23
Compressive strength of molded concrete cylinders	AASHTO T22

[1] As modified in CMM 8-60.

506.3.22 Shop Inspection

Replace paragraph one with the following effective with the July 2010 letting:

(1) The engineer or an independent inspection agency under department contract may inspect all structural steel and miscellaneous metals furnished. The department will provide the contractor with monthly consultant inspection invoices and identify any quality deficiencies at the fabrication facility.

506.5 Payment

Add paragraph nine as follows effective with the June 2010 letting:

(9) The department will limit costs for inspections conducted under 506.3.2 to $0.05 per pound of material and deduct costs in excess of that amount from payment due the contractor. The department will determine costs for in-house inspections based on hourly rates for department staff plus overhead and use invoiced costs for contracted-out inspections. The department will administer deductions for the contractor's share of the total inspection cost under the Excess Costs For Fabrication Shop Inspection administrative item.

507.2.2.1 General

Replace paragraph four with the following effective with the December 2012 letting:

(4) Ensure that there are no unsound knots or knot holes. Also ensure that there are no tight knots of a diameter exceeding one-quarter of the greater dimension at the point where they occur. Measure a knot by taking its diameter at right angles to the length of the timber. Ensure that the sum of sizes of all knots in any one-foot length does not exceed 2 times the size of the largest allowed single knot. The engineer will treat cluster knots as if they were a single knot. A cluster knot is 2 or more knots grouped together, with the fibers of the wood deflected around the entire unit.

512.3.1 Driving and Cutting Off

Replace the entire text with the following effective with the December 2012 letting:

512.3.1.1 General

(1) Coordinate driving operations to prevent damage or displacement of concrete in substructure units or damage to adjacent facilities due to vibrations.

(2) Drive sheeting with a variation of 1/4 inch or less per foot from the vertical or from the batter the plans show. Ensure that the sheetpiles are within 6 inches of the plan position after driving. Do not damage sheetpiles attempting to correct for misalignment.

(3) Remove and replace, or otherwise correct, sheetpiles the engineer deems unacceptable under 105.3. Submit details of planned corrections to the engineer for review and approval before initiating any corrective actions.

(4) Drive sheetpiles to or beyond the required tip elevation the plans show.

512.3.1.2 Driving System

(1) Furnish a sheetpile driving system capable of driving the sheetpiles to the required minimum tip elevation the plans show.

(2) The engineer may order the contractor to remove a pile driving system component from service if it causes insufficient energy transfer or damages the sheetpiles. Do not return a component to service until the engineer determines that it has been satisfactorily repaired or adjusted.

(3) Drive sheetpiles with diesel, air, steam, gravity, hydraulic, or vibratory hammers.

512.3.1.3 Cut-Offs

(1) Cut off sheetpiles at the elevations the plans show or as the engineer directs. Pile cut-offs become the property of the contractor. Dispose of cut-offs not incorporated into the work.

526.3.3 Temporary Structures

Replace paragraphs two through four with the following effective with the January 2013 letting:

(2) Inspect temporary structures conforming to the National Bridge Inspection Standards (NBIS) and the department’s structure inspection manual before opening to traffic. Perform additional inspections, as the department’s structure inspection manual requires, based on structure type and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the department's bureau of structures maintenance section. Ensure that a department-certified active team leader, listed online in the department's highway structures information system (HSIS), performs the inspections.

(3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.4. Contractor-furnished materials remain the contractor's property upon removal.

614.2.5 Wood Posts and Offset Blocks

Retitle and replace the entire text with the following effective with the July 2012 letting:

614.2.5 Posts and Offset Blocks

614.2.5.1 Wood Posts and Offset Blocks

(1) Furnish sawed posts and offset blocks of one of the following species:

Douglas fir	Southern pine	Ponderosa pine	Jack pine	White pine
Red pine	Western hemlock	Western larch	Hem-fir	Oak

(2) Ensure that posts are the size the plans show and conform to the nominal and minimum dimensions tabulated in 507.2.2.3. The contractor does not have to surface the posts. Provide posts of the net length the plans show after setting and cut off.

(3) Use stress graded posts rated at 1200 psi f_b or higher. Determine the stress grade rating for douglas fir, western larch, and southern pine as specified in 507.2.2.4.

(4) For hem-fir, hemlock, red pine, white pine, jack pine, ponderosa pine, and oak conform to the following:

TABLE 614-1 PROPERTIES FOR WOOD POSTS AND BLOCKS

SPECIES			WESTERN HEMLOCK, HEM-FIR, RED PINE, WHITE PINE, JACK PINE, PONDEROSA PINE		OAK	
MAXIMUM SLOPE OF GRAIN			1 in 15		1 in 12	
NOMINAL WIDTH OF FACE			6"	8"	6"	8"
SHAKES, CHECKS, AND SPLITS		GREEN	1"	1 3/8"	2 3/8"	3 1/8"
		SEASONED	1 1/2"	2"	2 5/8"	3 1/2"
MAXIMUM WANE			1"	1 3/8"	1 1/8"	1 5/8"
MAXIMUM ALLOWABLE KNOTS	NARROW FACE	MIDDLE 1/3 OF LENGTH	1 3/8"	1 5/8"	2 1/8"	2 3/8"
		END[1]	2 3/4"	3 1/4"	4 1/4"	4 3/4"
		SUM IN MIDDLE 1/2 OF LENGTH[2]	11"	13"	17"	19
	WIDE FACE	EDGE KNOT N MIDDLE 1/3 OF LENGTH	1 3/8"	1 5/8"		
		EDGE KNOT AT END[1]	2 3/4" 7	3 1/4"		
		CENTERLINE	1 3/8"	1 7/8"	2 1/4"	2 7/8"
		SUM IN MIDDLE 1/2 OF LENGTH	5 1/2"	7 1/2"	9"	11 1/2"

[1] But do not exceed the maximum allowable knot on the centerline of the wide face of the same piece.

[2] But do not exceed 4 times the maximum allowable knot on the centerline of the wide face of the same piece.

(5) Pressure treat posts and offset blocks as specified in 507.2.2.6. Use one of the oil-soluble preservatives or chromated copper arsenate conforming to 507.2.3. Use the same material for offset blocks and posts and treat material used in each continuous installation with the same type of preservative.

614.2.5.2 Steel Posts

(1) Furnish steel posts conforming to AASHTO M270 Grade 36 and galvanized according to AASTHO M111.

614.2.5.3 Plastic Offset Blocks

(1) Furnish plastic offset blocks from the department's approved products list.

614.3.1 General

Replace the entire text with the following effective with the July 2012 letting:

(1) Paint the ends of cut-off galvanized posts, rail, bolts, cut or drilled surfaces of galvanized components, and areas of damaged zinc coating with 2 coats of zinc dust/zinc oxide paint. Clean the damaged and adjacent areas thoroughly before applying paint.

(2) Apply 2 coats of wood preservative to cut surfaces of wood components. Use the same preservative originally used to treat that component or use a 2-percent solution of copper naphthenate conforming to AWPA Standard P8 or P36.

614.3.2.1 Installing Posts

Replace paragraph four with the following effective with the July 2012 letting:

(4) Cut post tops to the finished elevation the plans show.

628.2.13 Rock Bags

Replace paragraph one with the following effective with the November 2012 letting:

(1) Furnish rock bags made of a porous, ultraviolet resistant, high-density polyethylene or geotextile fabric that will retain 70% of its original strength after 500 hours of exposure according to ASTM D4355 and a minimum in-place filled size of 18-inches long by 12-inches wide by 6-inches high. Ensure that the fabric conforms to the following:

TEST REQUIREMENT	METHOD	VALUE
Minimum Tensile	ASTM D4632	
Machine direction		70 lb minimum
Cross direction		40 lb minimum
Elongation	ASTM D4632	
Machine direction		20% minimum
Cross direction		10 % min
Puncture	ASTM 4833	65 lbs minimum
Minimum Apparent Opening		0.0234 inches (No. 30 sieve)
Maximum Apparent Opening		0.0787 inches (No. 10 sieve)

701.4.2 Verification Testing

Replace paragraph two with the following effective with the December 2012 letting:

(2) The department will sample randomly at locations independent of the contractor’s QC tests and use separate equipment and laboratories. The department will conduct a minimum of one verification test for each 5 contractor QC tests unless specific QMP provisions specify otherwise.

715.3.1.3 Department Verification Testing

Replace paragraph one with the following effective with the December 2012 letting:

(1) The department will perform verification testing as specified in 701.4.2 except as follows:

- Air content, slump, and temperature: a minimum of 1 verification test per lot.
- Compressive strength: a minimum of 1 verification test per lot.

Errata

Make the following corrections to the 2012 edition of the standard specifications:

107.22 Contractor's Responsibility for Utility Facilities, Property, and Services

Correct errata by eliminating references to the department. Costs are determined by statute.

(3) If the contractor damages or interrupts service, the contractor shall notify the utility promptly. Coordinate and cooperate with the utility in the repair of the facility. Determine who is responsible for repair costs according to Wisconsin statutes 66.0831 and 182.0175(2).

506.2.6.5.2 Pad Construction

Correct errata by changing ASTM A570 to ASTM A1011.

(4) For the internal steel plates use rolled mild steel conforming to ASTM A36, or ASTM A1011 grade

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512.3.3 Painting

Correct errata by changing 511.3.5 to 550.3.11.3.

(1) Paint permanent steel sheet piling as specified for painting steel piling in 550.3.11.3.

513.2.2.8 Toggle Bolts

Correct errata by changing r ASTM A570 to ASTM A1011.

(1) Use toggle bolts made of steel, conforming to the plans. Make the assembly from the material specified below:

Toggle bolt and pin	Cold finished steel heat-treated Brinell 311-363 ASTM A354.
Toggle washer	Hot rolled steel ASTM A1011. Manufacturer's standard washer.
Spacer nut	Grade 1213, ASTM A108. Cold finished steel heat-treated ASTM A325.

660.2.1 General

Correct errata by changing section 511 to 550.

(1) Furnish materials conforming to the following:

Concrete	section 501
Concrete bridges	section 502
Luminaires	section 659
Steel piling	section 550
Steel reinforcement	section 505

660.3.2.3 Pile Type Foundations

Correct errata by changing section 511 to 550.

(1) Drive piles as specified in for steel piling in section 550.

701.3 Contractor Testing

Correct errata by changing AASHTO T141 to AASHTO R60 and changing AASHTO T309 to ASTM C1064.

(1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Also perform other tests as necessary to control production and construction processes, and additional testing enumerated in the contractor's quality control plan or that the engineer directs. Use test methods as follows:

TABLE 701-2 TESTING STANDARDS

TEST	TEST STANDARD
Washed P 200 analysis	AASHTO T11[1]
Sieve analysis of fine and coarse aggregate	AASHTO T27[1]
Aggregate moisture	AASHTO T255[1]
Sampling freshly mixed concrete	AASHTO R60
Air content of fresh concrete	AASHTO T152[2]
Concrete slump	AASHTO T119[2]
Concrete temperature	ASTM C1064
Concrete compressive strength	AASHTO T22
Making and curing concrete cylinders	AASHTO T23
Standard moist curing for concrete cylinders	AASHTO M201

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see section 3.2 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/docs/crc-basic-info.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

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.

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 2012

ADDITIONAL FEDERAL-AID PROVISIONS

BUY AMERICA

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials 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.

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://roadwaystandards.dot.wi.gov/standards/forms/hidden/ws4567.doc

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 with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
MILWAUKEE COUNTY

Compiled by the State of Wisconsin - Department of Workforce Development
for the Department of Transportation
Pursuant to s. 103.50, Stats.
Issued on April 1, 2012

CLASSIFICATION: Contractors are required to call the Department of Workforce Development if there are any questions reqarding the proper trade or classification to be used for any worker on a public works project.

OVERTIME: Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

FUTURE INCREASE: If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

PREMIUM PAY: If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

SUBJOURNEY: Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	32.66	15.92	48.58
Carpenter	33.43	19.31	52.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	29.33	17.03	46.36
Future Increase(s): Add $1.86 on 6/1/12; Add $1.87 on 6/1/13; Add $1.87 on 6/1/14; Add $1.87 on 6/1/15; Add $1.75 on 6/ 1/ 16. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	31.64	23.78	55.42
Fence Erector	35.62	0.00	35.62
Ironworker	31.31	21.54	52.85
Line Constructor (Electrical)	35.97	18.08	54.05
Painter	27.87	14.39	42.26
Pavement Marking Operator	27.87	14.39	42.26
Piledriver	29.56	24.96	54.52
Premium Pay: Add $.65/hr for Piledriver Loftsman; Add $.75/hr for Sheet Piling Loftsman. DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Roofer or Waterproofer	28.85	14.60	43.45
Teledata Technician or Installer	24.65	15.17	39.82
Tuckpointer, Caulker or Cleaner	34.30	15.47	49.77
Underwater Diver (Except on Great Lakes)	36.20	18.81	55.01

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	33.87	16.10	49.97
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	29.64	14.64	44.28
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.18	13.07	38.25
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	23.38	12.48	35.86
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.30	10.97	32.27
TRUCK DRIVERS			
Single Axle or Two Axle	22.35	16.19	38.54
Future Increase(s): Add $1.75/hr on 6/1/2012; Add $1.85/hr on 6/1/2013.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Three or More Axle	24.91	15.63	40.54
Articulated, Euclid, Dumptor, Off Road Material Hauler	22.50	16.19	38.69
Future Increase(s): Add $1.75/hr on 6/1/2012; Add $1.85/hr on 6/1/2013.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Pavement Marking Vehicle	23.84	14.70	38.54
Shadow or Pilot Vehicle	24.76	15.35	40.11
Truck Mechanic	24.91	15.63	40.54
LABORERS			
General Laborer	24.34	17.85	42.19
Future Increase(s): Add $1.60/hr on 6/1/2012: Add $1.70/hr on 6/1/2013; Add $1.60/hr on 6/1/2014.			
Premium Pay: Add $.15/hr for air tool operator, joint sawer and filler (pavement), vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.35/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add $.50/hr for line and grade specialist; Add $.65/hr for blaster and powderman; Add $2.01/hr for topman; Add $2.46/hr for bottomman; Add $3.23/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	22.00	16.86	38.86
Landscaper	23.71	15.03	38.74
Flagperson or Traffic Control Person	20.83	17.85	38.68
Future Increase(s): Add $1.60/hr on 6/1/2012; Add $1.70/hr on 6/1/2013; Add $1.60/hr on 6/1/2014.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.09	14.40	31.49
Railroad Track Laborer	17.00	1.06	18.06

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add $2/hr on 6/1/12; Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	34.22	18.90	53.12
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add $2/hr on 6/1/12; Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	33.72	18.90	52.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches	33.22	18.90	52.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
& A- Frames. Future Increase(s): Add $2/hr on 6/1/12; Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add $2/hr on 6/1/12; Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	32.96	18.90	51.86
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add $2/hr on 6/1/12; Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	32.67	18.90	51.57
Fiber Optic Cable Equipment.	24.39	15.45	39.84
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	36.20	18.81	55.01
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	36.20	18.81	55.01
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	26.80	18.52	45.32
Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	26.80	18.52	45.32

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
DECISION NUMBER: W1080010
DATE: September 28, 2012
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

LABORERS CLASSIFICATION:	Basic Hourly Rates	Fringe Benefits
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, Utility Man); Batch Truck Dumper; or Cement Handler; Bituminous Worker; (Dumper, Ironer, Smoother, Tamper); Concrete Handler	$24.34	16.74
Group 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer	24.49	16.74
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	24.69	16.74
Group 4: Line and Grade Specialist	24.84	16.74
Group 5: Blaster and Powderman	24.99	16.74
Group 6: Flagperson traffic control person	20.83	16.74

CLASSES OF LABORER AND MECHANICS

Bricklayer	35.58	16.07
Carpenter	30.52	14.41
Piledriverman	27.25	19.46
Ironworker	30.51	22.72
Cement Mason/Concrete Finisher	30.69	17.53
Electrician		See Page 3
Line Construction		
Lineman	38.25	18.00
Heavy Equipment Operator	34.43	16.71
Equipment Operator	30.60	15.41
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.04	12.16
Millwrights	26.32	13.98
Painter, Brush	29.52	18.79
Painter, Spray and Sandblaster	30.27	18.79
Painter, Bridge	29.87	18.79
Well Drilling:		
Well Driller	16.52	3.70

Truck Drivers:	Basic Hourly Rates	Fringe Benefits
1 & 2 Axles	23.16	17.13
Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	23.31	17.13

Notes: Welders receive rate prescribed for craft performing operation to which welding is incidental. 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 (29 CFR, 5.5(a)(1)(ii)). Includes Modification 0, dated March 12, 2010; Modification 1, dated March 19, 2010; Modification 2, dated June 4, 2010; Modification 3, dated July 2, 2010; Modification 4, dated August 6, 2010; Modification 5, dated September 3, 2010; Modification 6, dated October 1, 2010, Modification 7, dated November 5, 2010; Modificaton 8; dated November 15, 2010; Modification 9, dated January 7, 2011; Modification #10 dated February 11, 2011; Modification #11 dated May 6, 2011; Modification #12 dated May 13, 2011; Modification #13 dated June 3, 2011; Modification #14 dated July 29, 2011; Modification #15 dated August 12, 2011; Modification #16 dated August 26, 2011; Modification #17 dated September 16, 2011; Modification #18 dated October 14, 2011; Modification #19 dated November 11, 2011; Modification #0, dated January 6, 2012; Modification #1 dated January 13, 2012; Modification #2 dated February 3, 2012; Modification #3 dated February 10, 2012; Modification #4 dated March 2, 2012; Modification #5 dated May 4, 2012; Modification #6 dated May 11, 2012; Modification #7 dated June 1, 2012; Modification #8 dated June 15, 2012; Modification #9 dated July 6, 2012; Modification #10 dated August 3, 2012; Modification #11 dated August 31, 2012; Modification #12 dated September 28, 2012.

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
DECISION NUMBER: W1080010
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: September 28, 2012

POWER EQUIPMENT OPERATORS CLASSIFICATION:	Basic Hourly Rates	Fringe Benefits
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	$35.22	$19.65
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 jib lengths measuring 175 feet or less, and backhoes (excavators) having a manufacturer's rated capacity of 3 cu. yds. and over, caisson rigs, pile driver, dredge operator, dredge engineer	$34.72	$19.65
Group 3: Mechanic or welder - heavy duty equipment, cranes with a lifting capacity of 25 tons or less, concrete breaker (manual or remote); vibrator/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pavement spreader - heavy duty (rubber tired); concrete spreader and distributor, automatic subgrader (concrete); concrete grinder and planing machine; concrete slipform curb and gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi and over); bridge paver; concrete conveyor system; concrete pump; stabilizing mixer (self propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter and grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer and scarifier; backhoes (excavators) having a manufacturers rated capacity of under 3 cu. yds.; 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 and A-frames; post driver; material hoist operator.	$34.22	$19.65
Group 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self-propelled; tractor (mounted or towed compactors and light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint saw (multiple blade) belting machine; burlap machine; texturing machine; tractor, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	$33.96	$19.65
Group 5: Air compressor; power pack; vibratory hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; concrete pro-portioning 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 helper	$33.67	$19.65
Group 6: Off – road material hauler with or without ejector	$27.77	$19.65

Premium Pay:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hours

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
DECISION NUMBER: W1080010
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: September 28, 2012

LABORERS CLASSIFICATION:	Rates	Benefits
Electricians		
Area 1	$27.80	16.52
Area 2:		
Electricians	29.13	17.92
Area 3:		
Electrical contracts under $130,000	26.24	16.85
Electrical contracts over $130,000	29.41	16.97
Area 4:	28.10	17.24
Area 5	28.61	16.60
Area 6	35.25	19.30
Area 8		
Electricians	30.00	17.76
Area 9:		
Electricians	32.94	18.71
Area 10	28.97	19.55
Area 11	31.27	23.12
Area 12	32.87	19.22
Area 13	32.20	21.64
Teledata System Installer		
Area 14		
Installer/Technician	21.89	11.83
Sound & Communications		
Area 15		
Installer	16.47	14.84
Technician	24.75	16.04

Area 1 - 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 & Springfield), OUTAGAMIE, WAUPACA, WAUSHARA and WINNEBAGO COUNTIES.

Area 2 - ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Mayville, Colby, Unity, Sherman, Fremont, Lynn and 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

Area 3 - FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)

Area 4 - BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausauke and area south thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (except area North of Townships of Aniwa and Hutchins) COUNTIES.

Area 5 - ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausaukee), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Area North of the townships of Aniwa and Hutchins), VILAS AND WOOD COUNTIES

Area 6 - KENOSHA COUNTY

Area 8 - DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES

Area 9 - COLUMBIA, DANE, DODGE, (area west of Hwy. 26, except Chester & 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

Area 10 - CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

Area 11 - DOUGLAS COUNTY

Area 12 - RACINE (except Burlington township) COUNTY

Area 13 - MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES

Area 14 - Statewide.

Area 15 - DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES.

FEBRUARY 1999

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Secretary of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Secretary 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 omision 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. The higher of state or federal rate will apply.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 CONTRACT ITEMS					
0010	108.4400 CPM PROGRESS SCHEDULE	1.000 EACH		.		.
0020	201.0105 CLEARING	50.000 STA		.		.
0030	201.0120 CLEARING	4.000 ID		.		.
0040	201.0205 GRUBBING	50.000 STA		.		.
0050	201.0220 GRUBBING	4.000 ID		.		.
0060	203.0200 REMOVING OLD STRUCTURE (STATION) 01. 96+98.03	LUMP	LUMP			.
0070	203.0200 REMOVING OLD STRUCTURE (STATION) 02. 46+18.88	LUMP	LUMP			.
0080	203.0200 REMOVING OLD STRUCTURE (STATION) 03. 9+71 MN-S	LUMP	LUMP			.
0090	203.0210.S ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 01. B-40-260	LUMP	LUMP			.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0100	203.0210.S ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 02. B-40-263	LUMP	LUMP			.
0110	204.0100 REMOVING PAVEMENT	36,091.000 SY		.		.
0120	204.0125 REMOVING ASPHALTIC SURFACE MILLING	38,595.000 TON		.		.
0130	204.0157 REMOVING CONCRETE BARRIER	4,172.000 LF		.		.
0140	204.0165 REMOVING GUARDRAIL	200.000 LF		.		.
0150	204.0170 REMOVING FENCE	2,000.000 LF		.		.
0160	204.0175 REMOVING CONCRETE SLOPE PAVING	500.000 SY		.		.
0170	204.9090.S REMOVING (ITEM DESCRIPTION) 01. NOISE BARRIER	2,544.000 LF		.		.
0180	204.9090.S REMOVING (ITEM DESCRIPTION) 02. MODULAR WALL	320.000 LF		.		.
0190	205.0100 EXCAVATION COMMON	2,751.000 CY		.		.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0200	213.0100 FINISHING ROADWAY (PROJECT) 01. 1228-26-70	1.000 EACH		.		.
0210	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	10,535.000 TON		.		.
0220	311.0110 BREAKER RUN	528.000 TON		.		.
0230	390.0303 BASE PATCHING CONCRETE	24,359.000 SY		.		.
0240	415.0090 CONCRETE PAVEMENT 9-INCH	23,518.000 SY		.		.
0250	415.0120 CONCRETE PAVEMENT 12-INCH	681.000 SY		.		.
0260	415.0410 CONCRETE PAVEMENT APPROACH SLAB	2,068.000 SY		.		.
0270	416.0610 DRILLED TIE BARS	24,993.000 EACH		.		.
0280	416.0620 DRILLED DOWEL BARS	40,004.000 EACH		.		.
0290	440.4410.S INCENTIVE IRI RIDE	34,848.000 DOL	1.25000		43560.00	
0300	455.0115 ASPHALTIC MATERIAL PG64-22	1,182.800 TON		.		.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0310	455.0140 ASPHALTIC MATERIAL PG64-28P	982.400 TON		.		.
0320	455.0605 TACK COAT	7,895.000 GAL		.		.
0330	460.1110 HMA PAVEMENT TYPE E-10	39,211.000 TON		.		.
0340	460.2000 INCENTIVE DENSITY HMA PAVEMENT	25,100.000 DOL	1.25000		31375.00	
0350	502.0100 CONCRETE MASONRY BRIDGES	554.800 CY		.		.
0360	502.2000 COMPRESSION JOINT SEALER PREFORMED ELASTOMERIC (WIDTH) 01. 2.5 INCH	62.000 LF		.		.
0370	502.3200 PROTECTIVE SURFACE TREATMENT	82,847.000 SY		.		.
0380	502.5002 MASONRY ANCHORS TYPE L NO. 4 BARS	560.000 EACH		.		.
0390	502.5005 MASONRY ANCHORS TYPE L NO. 5 BARS	828.000 EACH		.		.
0400	502.5010 MASONRY ANCHORS TYPE L NO. 6 BARS	2.000 EACH		.		.
0410	502.6105 MASONRY ANCHORS TYPE S 5/8-INCH	328.000 EACH		.		.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0420	505.0605 BAR STEEL REINFORCEMENT HS COATED BRIDGES	218,040.000 LB		.		.
0430	505.0904 BAR COUPLERS NO. 4	68.000 EACH		.		.
0440	505.0905 BAR COUPLERS NO. 5	473.000 EACH		.		.
0450	505.0906 BAR COUPLERS NO. 6	303.000 EACH		.		.
0460	505.0907 BAR COUPLERS NO. 7	24.000 EACH		.		.
0470	506.2605 BEARING PADS ELASTOMERIC NON-LAMINATED	76.000 EACH		.		.
0480	506.2610 BEARING PADS ELASTOMERIC LAMINATED	32.000 EACH		.		.
0490	506.4000 STEEL DIAPHRAGMS (STRUCTURE) 01. B-40-260	22.000 EACH		.		.
0500	506.4000 STEEL DIAPHRAGMS (STRUCTURE) 02. B-40-263	26.000 EACH		.		.
0510	506.7050.S REMOVING BEARINGS (STRUCTURE) 01. B-40-261	16.000 EACH		.		.
0520	506.7050.S REMOVING BEARINGS (STRUCTURE) 02. B-40-262	16.000 EACH		.		.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0530	509.0301 PREPARATION DECKS TYPE 1	519.000 SY		.		.
0540	509.0302 PREPARATION DECKS TYPE 2	262.000 SY		.		.
0550	509.0500 CLEANING DECKS	76,417.000 SY		.		.
0560	509.1000 JOINT REPAIR	1,476.000 SY		.		.
0570	509.1500 CONCRETE SURFACE REPAIR	2,343.000 SF		.		.
0580	509.2000 FULL-DEPTH DECK REPAIR	33.000 SY		.		.
0590	509.2500 CONCRETE MASONRY OVERLAY DECKS	4,504.000 CY		.		.
0600	509.5100.S POLYMER OVERLAY	4,080.000 SY		.		.
0610	509.9020.S EPOXY CRACK SEALING	281.000 LF		.		.
0620	514.0900 ADJUSTING FLOOR DRAINS	63.000 EACH		.		.
0630	514.2625 DOWNSPOUT 6-INCH	200.000 LF		.		.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0640	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	54.000 SY		.		.
0650	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 04. B-40-174	LUMP	LUMP			.
0660	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 05. B-40-175	LUMP	LUMP			.
0670	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 06. B-40-176	LUMP	LUMP			.
0680	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 07. B-40-177	LUMP	LUMP			.
0690	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 09. B-40-180	LUMP	LUMP			.
0700	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 10. B-40-181	LUMP	LUMP			.
0710	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 11. B-40-182	LUMP	LUMP			.
0720	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 12. B-40-183	LUMP	LUMP			.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0730	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 13. B-40-184	LUMP	LUMP			.
0740	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 16. B-40-286-24C	LUMP	LUMP			.
0750	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 17. B-40-286-24D	LUMP	LUMP			.
0760	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 18. B-40-286-21	LUMP	LUMP			.
0770	517.1800.S STRUCTURE REPAINTING RECYCLED ABRASIVE (STRUCTURE) 19. B-40-286-26	LUMP	LUMP			.
0780	517.3000.S STRUCTURE OVERCOATING CLEANING AND PRIMING (STRUCTURE) 01. B-40-183	LUMP	LUMP			.
0790	517.3000.S STRUCTURE OVERCOATING CLEANING AND PRIMING (STRUCTURE) 02. B-40-184	LUMP	LUMP			.
0800	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 04. B-40-174	LUMP	LUMP			.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0810	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 05. B-40-175	LUMP	LUMP			.
0820	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 06. B-40-176	LUMP	LUMP			.
0830	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 07. B-40-177	LUMP	LUMP			.
0840	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 09. B-40-180	LUMP	LUMP			.
0850	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 10. B-40-181	LUMP	LUMP			.
0860	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 11. B-40-182	LUMP	LUMP			.
0870	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 12. B-40-183	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0880	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 13. B-40-184	LUMP	LUMP			.
0890	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 16. B-40-286-24C	LUMP	LUMP			.
0900	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 17. B-40-286-24D	LUMP	LUMP			.
0910	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 18. B-40-286-21	LUMP	LUMP			.
0920	517.4500.S NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS (STRUCTURE) 19. B-40-286-26	LUMP	LUMP			.
0930	517.6001.S PORTABLE DECONTAMINATION FACILITY	13.000 EACH	.			.
0940	531.0300.S NOISE BARRIERS DOUBLE-SIDED SOUND ABSORPTIVE (STRUCTURE) 01. N-40-7	47,570.000 SF	.			.
0950	601.0331 CONCRETE CURB & GUTTER 31-INCH	326.000 LF	.			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0960	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A	8,602.000 LF		.		.
0970	601.0511 CONCRETE CURB AND GUTTER INTEGRAL 6-INCH SLOPED 36-INCH	19,292.000 LF		.		.
0980	603.0105 CONCRETE BARRIER SINGLE-FACED 32-INCH	1,258.000 LF		.		.
0990	603.1142 CONCRETE BARRIER TYPE S42	4,427.000 LF		.		.
1000	603.3213 CONCRETE BARRIER TRANSITION TYPE F32SF TO S36	11.000 EACH		.		.
1010	603.3255 CONCRETE BARRIER TRANSITION TYPE F42SF TO S42	3.000 EACH		.		.
1020	603.3535 CONCRETE BARRIER TRANSITION TYPE S36 TO S42	11.000 EACH		.		.
1030	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	11,892.000 LF		.		.
1040	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	30,779.000 LF		.		.
1050	604.0400 SLOPE PAVING CONCRETE	500.000 SY		.		.
1060	611.0410 RECONSTRUCTING CATCH BASINS	39.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1070	611.0420 RECONSTRUCTING MANHOLES	19.000 EACH		.		.
1080	611.0430 RECONSTRUCTING INLETS	15.000 EACH		.		.
1090	611.8105 ADJUSTING CATCH BASIN COVERS	70.000 EACH		.		.
1100	611.8110 ADJUSTING MANHOLE COVERS	34.000 EACH		.		.
1110	611.8115 ADJUSTING INLET COVERS	107.000 EACH		.		.
1120	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH	226.000 LF		.		.
1130	614.0150 ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	2.000 EACH		.		.
1140	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH	1,352.000 LF		.		.
1150	614.0305 STEEL PLATE BEAM GUARD CLASS A	163.000 LF		.		.
1160	614.0700 SAND BARRELS ARRAYS	1.000 EACH		.		.
1170	614.0800 CRASH CUSHIONS PERMANENT	3.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1180	614.0905 CRASH CUSHIONS TEMPORARY	18.000 EACH		.		.
1190	614.0935 SALVAGED SAND BARRELS	49.000 EACH		.		.
1200	614.2300 MGS GUARDRAIL 3	6,834.000 LF		.		.
1210	614.2500 MGS THRIE BEAM TRANSITION	128.000 LF		.		.
1220	614.2610 MGS GUARDRAIL TERMINAL EAT	19.000 EACH		.		.
1230	614.2620 MGS GUARDRAIL TERMINAL TYPE 2	3.000 EACH		.		.
1240	616.0700.S FENCE SAFETY	1,040.000 LF		.		.
1250	619.1000 MOBILIZATION	1.000 EACH		.		.
1260	625.0500 SALVAGED TOPSOIL	7,326.000 SY		.		.
1270	628.1504 SILT FENCE	3,170.000 LF		.		.
1280	628.1520 SILT FENCE MAINTENANCE	3,170.000 LF		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1290	628.1905 MOBILIZATIONS EROSION CONTROL	14.000 EACH		.		.
1300	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	6.000 EACH		.		.
1310	628.2023 EROSION MAT CLASS II TYPE B	7,326.000 SY		.		.
1320	628.7010 INLET PROTECTION TYPE B	301.000 EACH		.		.
1330	628.7020 INLET PROTECTION TYPE D	67.000 EACH		.		.
1340	629.0210 FERTILIZER TYPE B	6.000 CWT		.		.
1350	630.0130 SEEDING MIXTURE NO. 30	132.000 LB		.		.
1360	630.0200 SEEDING TEMPORARY	198.000 LB		.		.
1370	633.1100 DELINEATORS TEMPORARY	2,334.000 EACH		.		.
1380	634.0618 POSTS WOOD 4X6-INCH X 18-FT	230.000 EACH		.		.
1390	634.0885 POSTS TUBULAR STEEL 2X2-INCH X 8.5-FT	12.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1400	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS	1,000.000 LB		.		.
1410	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS	36.000 EACH		.		.
1420	636.0100 SIGN SUPPORTS CONCRETE MASONRY	5.000 CY		.		.
1430	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT	500.000 LB		.		.
1440	637.0101 SIGNS TYPE I	5,177.000 SF		.		.
1450	637.0202 SIGNS REFLECTIVE TYPE II	5,082.447 SF		.		.
1460	638.2102 MOVING SIGNS TYPE II	2.000 EACH		.		.
1470	638.2601 REMOVING SIGNS TYPE I	54.000 EACH		.		.
1480	638.2602 REMOVING SIGNS TYPE II	360.000 EACH		.		.
1490	638.3000 REMOVING SMALL SIGN SUPPORTS	194.000 EACH		.		.
1500	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS	2.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1510	638.3620 ERECTING STATE OWNED SIGNS TYPE II	40.000 EACH		.		.
1520	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 01. S-40-977	LUMP	LUMP			.
1530	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 02. S-40-978	LUMP	LUMP			.
1540	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 03. S-40-979	LUMP	LUMP			.
1550	642.5201 FIELD OFFICE TYPE C	1.000 EACH		.		.
1560	643.0100 TRAFFIC CONTROL (PROJECT) 01. 1228-26-70	1.000 EACH		.		.
1570	643.0300 TRAFFIC CONTROL DRUMS	141,428.000 DAY		.		.
1580	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	16,523.000 DAY		.		.
1590	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	33.000 EACH		.		.
1600	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	33.000 EACH		.		.
1610	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	10,067.000 DAY		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1620	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	25,881.000 DAY		.		.
1630	643.0800 TRAFFIC CONTROL ARROW BOARDS	1,906.000 DAY		.		.
1640	643.0900 TRAFFIC CONTROL SIGNS	34,746.000 DAY		.		.
1650	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I	17.000 EACH		.		.
1660	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	49.000 EACH		.		.
1670	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE	2,314.000 SF		.		.
1680	643.1050 TRAFFIC CONTROL SIGNS PCMS	2,720.000 DAY		.		.
1690	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 01. 1228-26-70	1.000 EACH		.		.
1700	643.3000 TRAFFIC CONTROL DETOUR SIGNS	76,127.000 DAY		.		.
1710	646.0106 PAVEMENT MARKING EPOXY 4-INCH	149,747.000 LF		.		.
1720	646.0600 REMOVING PAVEMENT MARKINGS	39,465.000 LF		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1730	646.0841.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	24,175.000 LF		.		.
1740	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	23,948.000 LF		.		.
1750	647.0158 PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 1	8.000 EACH		.		.
1760	647.0168 PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 2	12.000 EACH		.		.
1770	647.0178 PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 3	11.000 EACH		.		.
1780	647.0188 PAVEMENT MARKING ARROWS PREFORMED THERMOPLASTIC TYPE 4	16.000 EACH		.		.
1790	647.0258 PAVEMENT MARKING SYMBOLS PREFORMED THERMOPLASTIC	4.000 EACH		.		.
1800	647.0568 PAVEMENT MARKING STOP LINE PREFORMED THERMOPLASTIC 18-INCH	571.000 LF		.		.
1810	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	5,788.000 LF		.		.
1820	647.0746 PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	2,263.000 LF		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1830	647.0768 PAVEMENT MARKING CROSSWALK PREFORMED THERMOPLASTIC 6-INCH	860.000 LF		.		.
1840	647.0955 REMOVING PAVEMENT MARKINGS ARROWS	4.000 EACH		.		.
1850	647.0960 REMOVING PAVEMENT MARKINGS SYMBOLS	5.000 EACH		.		.
1860	647.0965 REMOVING PAVEMENT MARKINGS WORDS	3.000 EACH		.		.
1870	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH	119,784.000 LF		.		.
1880	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	106,256.000 LF		.		.
1890	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	375.000 LF		.		.
1900	649.1500 TEMPORARY PAVEMENT MARKING DIAGONAL 12-INCH	214.000 LF		.		.
1910	649.1800 TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	6.000 EACH		.		.
1920	649.2100 TEMPORARY RAISED PAVEMENT MARKERS	753.000 EACH		.		.
1930	652.0125 CONDUIT RIGID METALLIC 2-INCH	290.000 LF		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1940	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	385.000 LF		.		.
1950	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	62.000 LF		.		.
1960	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	31.000 LF		.		.
1970	652.0340 CONDUIT RIGID NONMETALLIC SCHEDULE 80 4-INCH	31.000 LF		.		.
1980	653.0220 JUNCTION BOXES 18X6X6-INCH	6.000 EACH		.		.
1990	655.0128 CABLE IN DUCT 3-8 AWG	675.000 LF		.		.
2000	657.6005.S ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	2.000 EACH		.		.
2010	670.0100 FIELD SYSTEM INTEGRATOR	LUMP	LUMP			.
2020	670.0200 ITS DOCUMENTATION	LUMP	LUMP			.
2030	676.0100 SIGNAL ASSEMBLY RAMP CONTROL SIDEMOUNT	12.000 EACH		.		.
2040	676.0105 SIGNAL ASSEMBLY RAMP CONTROL OVERHEAD	2.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2050	690.0250 SAWING CONCRETE	150,301.000 LF		.		.
2060	ASP.1T0A ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	6,000.000 HRS	5.00000		30000.00	
2070	ASP.1T0G ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	5,000.000 HRS	5.00000		25000.00	
2080	SPV.0045 SPECIAL 01. TRUCK MOUNTED ATTENUATOR	132.000 DAY		.		.
2090	SPV.0045 SPECIAL 02. CONGESTION WARNING SYSTEM	180.000 DAY		.		.
2100	SPV.0045 SPECIAL 03. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS	1,433.000 DAY		.		.
2110	SPV.0045 SPECIAL 04. DISINCENTIVE FOR INTERIM COMPLETION OF WORK STAGE 2B	0.010 DAY	5000.00000		50.00	
2120	SPV.0045 SPECIAL 05. INCENTIVE FOR INTERIM COMPLETION OF WORK STAGE 2B	0.010 DAY	100000.00000		1000.00	
2130	SPV.0060 SPECIAL 01. CLEANING AND PAINTING BEARINGS	795.000 EACH		.		.
2140	SPV.0060 SPECIAL 02. HANGER ASSEMBLY	2.000 EACH		.		.

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2150	SPV.0060 SPECIAL 03. REMOVE AND REINSTALL LIGHT POLE	2.000 EACH		.		.
2160	SPV.0060 SPECIAL 04. CONCRETE BARRIER TRANSITION SLOPED FACE PARAPET HF	1.000 EACH		.		.
2170	SPV.0060 SPECIAL 05. MOBILIZATIONS EMERGENCY PAVEMENT REPAIR	20.000 EACH		.		.
2180	SPV.0060 SPECIAL 06. FIRE HYDRANT SIGN MOUNTING	4.000 EACH		.		.
2190	SPV.0060 SPECIAL 07. TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP	22.000 EACH		.		.
2200	SPV.0060 SPECIAL 08. TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE	132.000 EACH		.		.
2210	SPV.0060 SPECIAL 09. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 5	2.000 EACH		.		.
2220	SPV.0060 SPECIAL 10. WIRELESS TRAFFIC SENSOR	32.000 EACH		.		.
2230	SPV.0060 SPECIAL 11. WIRELESS TRAFFIC SENSOR ACCESS POINT	7.000 EACH		.		.
2240	SPV.0060 SPECIAL 12. WIRELESS TRAFFIC SENSOR REPEATER	10.000 EACH		.		.

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2250	SPV.0060 SPECIAL 13. WIRELESS TRAFFIC SENSOR CONTACT CLOSURE MODULE	4.000 EACH		.		.
2260	SPV.0060 SPECIAL 14. REMOVING RAMP CONTROL SIGNAL ASSEMBLY SIDEMOUNT	12.000 EACH		.		.
2270	SPV.0060 SPECIAL 15. REMOVING RAMP CONTROL SIGNAL ASSEMBLY OVERHEAD	2.000 EACH		.		.
2280	SPV.0060 SPECIAL 16. REFOCUS MICROWAVE VEHICLE DETECTOR ASSEMBLY	10.000 EACH		.		.
2290	SPV.0060 SPECIAL 17. UTILITY LINE OPENING	4.000 EACH		.		.
2300	SPV.0070 SPECIAL 01. CORROSION INHIBITING PROTECTIVE COATING	941.000 GAL		.		.
2310	SPV.0075 SPECIAL 01. PAVEMENT CLEANUP	690.000 HRS	187.50000		129375.00	
2320	SPV.0090 SPECIAL 01. FENCE TEMPORARY	1,600.000 LF		.		.
2330	SPV.0090 SPECIAL 02. REMOVE PAVEMENT MARKING GROOVED TAPE	14,501.000 LF		.		.
2340	SPV.0105 SPECIAL 01. REMOVING SIGN BRIDGE S-40-92	LUMP	LUMP			.

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2350	SPV.0105 SPECIAL 02. REMOVING SIGN BRIDGE S-40-94	LUMP	LUMP			.
2360	SPV.0105 SPECIAL 03. REMOVING SIGN BRIDGE S-40-95	LUMP	LUMP			.
2370	SPV.0105 SPECIAL 04. INSTALL EXPANSION DEVICE B-40-175	LUMP	LUMP			.
2380	SPV.0105 SPECIAL 05. INSTALL EXPANSION DEVICE B-40-176	LUMP	LUMP			.
2390	SPV.0105 SPECIAL 06. INSTALL EXPANSION DEVICE B-40-183	LUMP	LUMP			.
2400	SPV.0105 SPECIAL 07. INSTALL EXPANSION DEVICE B-40-184	LUMP	LUMP			.
2410	SPV.0105 SPECIAL 08. INSTALL EXPANSION DEVICE B-40-261	LUMP	LUMP			.
2420	SPV.0105 SPECIAL 09. INSTALL EXPANSION DEVICE B-40-262	LUMP	LUMP			.
2430	SPV.0105 SPECIAL 10. INSTALL EXPANSION DEVICE B-40-285-22A	LUMP	LUMP			.
2440	SPV.0105 SPECIAL 11. INSTALL EXPANSION DEVICE B-40-286-21	LUMP	LUMP			.
2450	SPV.0105 SPECIAL 12. INSTALL EXPANSION DEVICE B-40-286-24A	LUMP	LUMP			.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2460	SPV.0105 SPECIAL 13. INSTALL EXPANSION DEVICE B-40-286-24B	LUMP	LUMP			.
2470	SPV.0105 SPECIAL 14. INSTALL EXPANSION DEVICE B-40-286-24C	LUMP	LUMP			.
2480	SPV.0105 SPECIAL 15. INSTALL EXPANSION DEVICE B-40-286-24D	LUMP	LUMP			.
2490	SPV.0105 SPECIAL 16. INSTALL EXPANSION DEVICE B-40-286-26	LUMP	LUMP			.
2500	SPV.0105 SPECIAL 17. INSTALL MODULAR EXPANSION DEVICE B-40-175	LUMP	LUMP			.
2510	SPV.0105 SPECIAL 18. INSTALL MODULAR EXPANSION DEVICE B-40-176	LUMP	LUMP			.
2520	SPV.0105 SPECIAL 19. INSTALL MODULAR EXPANSION DEVICE B-40-184	LUMP	LUMP			.
2530	SPV.0105 SPECIAL 20. INSTALL EXPANSION DEVICE MODULAR B-40-285-27C	LUMP	LUMP			.
2540	SPV.0105 SPECIAL 21. INSTALL EXPANSION DEVICE MODULAR B-40-285-27D	LUMP	LUMP			.
2550	SPV.0105 SPECIAL 22. INSTALL EXPANSION DEVICE MODULAR B-40-285-27E1	LUMP	LUMP			.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2560	SPV.0105 SPECIAL 23. INSTALL EXPANSION DEVICE MODULAR B-40-285-27E2	LUMP	LUMP			.
2570	SPV.0105 SPECIAL 24. INSTALL EXPANSION DEVICE MODULAR B-40-285-27F1	LUMP	LUMP			.
2580	SPV.0105 SPECIAL 25. INSTALL EXPANSION DEVICE MODULAR B-40-285-27F2	LUMP	LUMP			.
2590	SPV.0105 SPECIAL 26. INSTALL EXPANSION DEVICE B-40-285-22B	LUMP	LUMP			.
2600	SPV.0105 SPECIAL 27. INSTALL EXPANSION DEVICE B-40-286-23A	LUMP	LUMP			.
2610	SPV.0105 SPECIAL 28. INSTALL EXPANSION DEVICE B-40-285-23B	LUMP	LUMP			.
2620	SPV.0105 SPECIAL 29. INSTALL EXPANSION DEVICE B-40-285-25A	LUMP	LUMP			.
2630	SPV.0105 SPECIAL 30. INSTALL EXPANSION DEVICE B-40-285-25B	LUMP	LUMP			.
2640	SPV.0105 SPECIAL 31. INSTALL EXPANSION DEVICE B-40-285-25C	LUMP	LUMP			.
2650	SPV.0105 SPECIAL 32. INSTALL EXPANSION DEVICE B-40-285-25D	LUMP	LUMP			.
2660	SPV.0105 SPECIAL 33. INSTALL EXPANSION DEVICE B-40-285-27A	LUMP	LUMP			.

CONTRACT: 20130108008 PROJECT(S): 1228-26-70 FEDERAL ID(S): WISC 2013025

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2670	SPV.0105 SPECIAL 34. INSTALL EXPANSION DEVICE B-40-285-27B	LUMP	LUMP			.
2680	SPV.0165 SPECIAL 01. CATHODIC PROTECTION	1,760.000 SF	.			.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE