

HIGHWAY WORK PROPOSAL

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

Proposal Number: **009**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Milwaukee	1360-11-70	WISC 2021477	Fond Du Lac Ave (Sth 145); Grantosa, Flagg/Florist Bridges	STH 145
Milwaukee	1360-16-70	N/A	Fond Du Lac Ave (Sth 145); Good Hope Rd To W County Line	STH 145
Milwaukee	1360-17-70	N/A	Various Bridge Locations; Sth 145/Sth 175/Sth 181	VAR HWY
Milwaukee	1360-15-70	WISC 2021478	Fond Du Lac Ave (Sth 145); Good Hope Rd Interchange To 68th St	STH 145

**ADDENDUM
REQUIRED
ATTACHED AT BACK**

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: \$340,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: September 14, 2021 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time October 14, 2022	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 8%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Bidder Signature)

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

(Print or Type Bidder Name)

(Date Commission Expires)

(Bidder Title)

Notary Seal

Type of Work:	For Department Use Only
Excavation, Base, Concrete Pavement, HMA Pavement, Curb and Gutter, Sidewalk, Bridge Painting, Sign Bridges, Bridge Replacement, Deck Overlays, Concrete Barrier, Storm Sewer, Beam Guard, Fence, Signs, Traffic Signals, Street Lighting	
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

B Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 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:
<https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>
Use Expedite™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.
- (2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal, not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

- (3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.
- (4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.
- (5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

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

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

(Signature of Attorney-in-Fact)

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

[illegible]

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

Special Provisions

Table of Contents

Article	Description	Page #
1.	General.....	4
2.	Scope of Work.....	4
3.	Prosecution and Progress.....	4
4.	Lane Rental Fee Assessment.....	7
5.	Traffic.....	8
6.	Holiday and Special Event Work Restrictions.....	11
7.	Public Convenience and Safety.....	11
8.	Utilities.....	11
9.	Railroad Insurance and Coordination - Union Pacific Railroad Company.....	17
10.	Other Contracts.....	18
11.	Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.....	18
12.	Information to Bidders, WPDES General Construction Storm Water Discharge Permit.....	18
13.	Environmental Protection, Aquatic Exotic Species Control.....	19
14.	Erosion Control.....	19
15.	Environmental Protection for Culvert Work.....	20
16.	Environmental Protection.....	20
17.	Notice to Contractor – Contamination Beyond Construction Limits.....	21
18.	Notice to Contractor, Verification of Asbestos Inspection, No Asbestos Found.....	21
19.	Notice to Contractor – Contamination Beyond Construction Limits.....	21
20.	Notice to Contractor – Traffic Signal Equipment Lead Time.....	22
21.	Notice to Contractor – FAA Airspace Notice.....	22
22.	Notice to Contractors – Milwaukee County Transit System.....	22
23.	Construction Over or Adjacent to Navigable Waters.....	22
24.	Traffic Signals, General.....	22
25.	Abatement of Asbestos Containing Material B-40-280, Item 203.0210.S.01; Abatement of Asbestos Containing Material B-40-281, Item 203.0210.S.02.....	23
26.	Removing Concrete Barrier.....	24
27.	Removing Concrete Bases, Item 204.0195.....	24
28.	Removing Sign Bridge Lighting Units, Item 204.9060.S.01.....	24
29.	Removing Traffic Signals STH 145 & Fond du Lac Avenue, Item 204.9105.S.01.....	25
30.	Removing Loop Detector Wire and Lead-in Cable STH 145 & Fond du Lac Avenue, Item 204.9105.S.02.....	25
31.	Removal of Underdeck Hardware Item 204.9105.S.03.....	26
32.	Protection of Concrete.....	26
33.	Concrete Pavement Joint Layout 1360-11-70, Item 415.5110.S.01; Concrete Pavement Joint Layout 1360-15-70, Item 415.5110.S.02.....	26
34.	HMA Percent Within Limits (PWL) Test Strip Volumetrics, Item 460.0105.S; HMA Percent Within Limits (PWL) Test Strip Density Item 460.0110.S.....	27

35.	Removing Bearings, B-40-280, Item 506.7050.S.01; Removing Bearings, B-40-281, Item 506.7050.S.02.....	32
36.	Sawing Pavement Deck Preparation Areas, Item 509.0310.S.	33
37.	Concrete Masonry Deck Repair, Item 509.2100.S.	33
38.	Polymer Overlay, Item 509.5100.S.	34
39.	Epoxy Injection Crack Repair, Item 509.9025.S; Cored Holes 2-Inch Diameter, Item 509.9026.S.....	39
40.	Preparation and Coating of Top Flanges B-40-280, Item 517.0900.S.01; Preparation and Coating of Top Flanges B-40-281, Item 517.0900.S.02.....	41
41.	Structure Repainting Recycled Abrasive B-40-278, Item 517.1800.S.01; Structure Repainting Recycled Abrasive B-40-279, Item 517.1800.S.02; Structure Repainting Recycled Abrasive B-40-280, Item 517.1800.S.03; Structure Repainting Recycled Abrasive B-40-281, Item 517.1800.S.04; Structure Repainting Recycled Abrasive B-40-280, Item 517.1800.S.05; Structure Repainting Recycled Abrasive B-40-281, Item 517.1800.S.06.	42
42.	Labeling and Disposal of Waste Material.....	44
43.	Negative Pressure Containment and Collection of Waste Materials, B-40-278, Item 517.4500.S.01; Negative Pressure Containment and Collection of Waste Materials, B-40-279, Item 517.4500.S.02; Negative Pressure Containment and Collection of Waste Materials, B-40-280, Item 517.4500.S.03; Negative Pressure Containment and Collection of Waste Materials, B-40-281, Item 517.4500.S.04; Negative Pressure Containment and Collection of Waste Materials, B-40-280, Item 517.4500.S.05; Negative Pressure Containment and Collection of Waste Materials, B-40-281, Item 517.4500.S.06.	47
44.	Portable Decontamination Facility, Item 517.6001.S.	48
45.	Slope Paving Repair Crushed Aggregate, Item 604.9010.S.	49
46.	Adjusting Manhole Covers, Item 611.8110.	49
47.	Cover Plates Temporary, Item 611.8120.S.....	50
48.	Fence Safety, Item 616.0700.S.	50
49.	Covering Signs.....	51
50.	Traffic Meetings and Traffic Control Scheduling.	51
51.	General Requirements for Electrical Work.....	52
52.	Intelligent Transportation Systems (ITS) – Control of Materials.	52
53.	Intelligent Transportation Systems - General Requirements.	53
54.	Electrical Conduit.	56
55.	Install Conduit Into Existing Item, Item 652.0700.S.	56
56.	Signal Housings.	56
57.	Pedestrian Push Buttons.....	57
58.	Signal Mounting Hardware.....	57
59.	Traffic Signal Faces.	57
60.	Pedestrian Signal Face 16-Inch.	57
61.	HMA Pavement Percent Within Limits (PWL) QMP, Core Pilot Project; Incentive Density PWL HMA Pavement, Item SPV.0055.01; Incentive Air Voids HMA Pavement SPV.0055.02.	57
62.	Appendix A, Core Pilot Project.....	64
63.	Traffic Control Close-Open Freeway Service Ramp, Item SPV. 0060.01.	69
64.	Traffic Control Full Freeway Closure, Item SPV. 0060.02.	69
65.	Adjusting Water Valve Boxes, Item SPV.0060.03.	69
66.	Cleaning Inlets, Item SPV. 0060.04.	70

67.	Field Facilities Office Space, Item SPV.0060.05.	71
68.	Utility Line Opening (ULO), Item SPV.0060.06.	72
69.	Relocating Existing Single Arm Lighting Assembly, Item SPV.0060.10.	72
70.	Lighting Unit Grading, Item SPV.0060.18.	73
71.	Install Poles Type 9 Special, Item SPV.0060.30; Install Monotube Arms 40-FT Type 9/10 Spec Pole, Item SPV.0060.31.	74
72.	Strapping C-40-8, Item SPV.0060.40; Strapping C-40-6, Item SPV.0060.41.	74
73.	4' Diameter Manhole Type CUC, Item SPV.0060.50.	75
74.	4' Diameter "Doghouse" Manhole Type CUC, Installed over Conduit, Item SPV.0060.51.	76
75.	Installing Conduit Into Existing Manhole, Item SPV.0060.52.	78
76.	Remove 2070 Controller, Item SPV.0060.60.	79
77.	Ground Rod, Item SPV.0060.61.	80
78.	Pull Boxes 13-Inch x 24-Inch x 24-Inch, Item SPV.0060.70.	80
79.	Poles Type 25-AL-BD, Item SPV.0060.71.	81
80.	Luminaire Arms Single Member 6-Ft., Item SPV. SPV.0060.72.	82
81.	Luminaire Utility LED 3, Item SPV.0060.73.	83
82.	Expansion Joint Seal System, Item SPV.0090.20.	86
83.	4-Duct Conduit, Cement Encased, 3-inch Rigid Nonmetallic Conduit DB-60, Item SPV.0090.50.	88
84.	Outdoor Rated Network Cable, Item SPV.0090.60.	92
85.	Trnspt & Install State Furn Traffic Signal Cabinet STH 145 & Fond du Lac Avenue, Item SPV.0105.01.	92
86.	Trnspt & Install State Furn Radar Detect Sys STH 145 & Fond du Lac Avenue, Item SPV.0105.02.	93
87.	Trnspt Traffic Signal & Inter Light Materials STH 145 & Fond du Lac Avenue, Item SPV.0105.03.	94
88.	Fiber Wrap Reinforcing Structural, Item SPV.0165.01.	95

STSP'S Revised January 13, 2021

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1360-11-70, STH 145 – City of Milwaukee, Various Bridge Locations, STH 145, Milwaukee County; Project 1360-15-70, Fond Du Lac Ave – City of Milwaukee, Good Hope Rd Interchange to 68th St, STH 145, Milwaukee County; Project 1360-16-70, Fond Du Lac Ave, Good Hope Rd to W County Line, STH 145, Milwaukee County; and Project 1360-17-70, Various Bridge Locations, STH 145/STH 175/STH 181, Var Hwy, 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, 2021 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 (20210113)

2. Scope of Work.

Project 1360-11-70

The work under this contract shall consist of HMA pavement, concrete base, concrete approach slabs, lighting, repair and placement of slope paving and deck replacement (B-40-278 and B-40-279), concrete surface repairs and repair of slope paving (B-40-280 and B-40-281), erosion control, pavement marking, traffic control, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

Project 1360-15-70

The work under this contract shall consist of grading, milling, base aggregate dense, HMA pavement, base patching, reconstructing inlets and adjusting inlet covers, concrete repair and replacement, curb and gutter, concrete barrier, guardrail, lighting, traffic signals, girder and pier bearing repainting (B-40-280 and B-40-281), sign structures (S-40-3024, S-40-3025, S-40-3026, S-40-3027, S-40-3028, S-40-3029, S-40-3030 and S-40-3031), erosion control, pavement marking, traffic control, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

Project 1360-16-70

The work under this contract shall consist of milling, base aggregate dense, HMA pavement, guardrail, erosion control, pavement marking, traffic control, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

Project 1360-17-70

The work under this contract shall consist of polymer overlay (B-40-271, B-40-272, B-40-274, B-40-275, B-40-276, B-40-277, B-40-328, and B-40-766), concrete repair and wingwall strap installment (C-40-5/8 and C-40-6/9), erosion control, pavement marking, traffic control, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least 2 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.

Lane closures on West Grantosa Avenue are not allowed prior to March 1, 2022.

Be advised that there may be multiple mobilizations and/or remobilizations to complete construction operations, for example, such items as: traffic control, base patching, milling, paving, concrete work, signing, temporary and permanent pavement marking, finishing items and other incidental items related to staging. No additional payment will be made, by the department, for additional mobilizations.

ID 1360-11-70

Stage 1 Construction

- Construct westbound Grantosa Avenue structure.
- Perform slope paving and structure painting on the north side of the structures over Flagg Avenue.

Stage 2 Construction

- Construct eastbound Grantosa Avenue structure.
- Perform slope paving and structure painting on the south side of the structures over Flagg Avenue.

ID 1360-15-70 and 1360-16-70

Stage 1 Construction

- Perform base patching, milling, resurfacing of outside lane and outside shoulder of STH 145.
- Perform ramp base patching, milling, resurfacing and reconstruct curb ramps.

Stage 2 Construction

- Perform base patching, milling, resurfacing of inside two lanes and inside shoulder of STH 145.

Nighttime Closure

- Perform base patching, milling of the existing middle lane of STH 145.
- Resurfacing of the two inside lanes of STH 145.

Echelon Paving STH 145

Paving of both NB and SB STH 145 shall be done in echelon for the following locations:

- Existing outside lane, outside shoulder and any adjacent ramp deceleration/acceleration lanes to the ramp gore point, during Stage 1.
- Two inside lanes during nighttime closures.

ID 1360-17-70

Stage 1A Construction

- Place polymer overlay on outside two lanes on the west side of southbound STH 175 and STH 181 structures.

Stage 1B Construction

- Place polymer overlay on outside two lanes on the east side of northbound STH 175 and STH 181 structures.

Stage 2 Construction

- Place polymer overlay on inside two lanes of northbound and southbound STH 175 and STH 181 structures.

Structure C-40-5/8 and C-40-6/9

- Perform concrete surface repairs to structures.
- Structure C-40-5/8 under STH 145 may only be accessed from the north end of the structure to perform the work shown in the plans.

Project 1360-11-70: Interim Completion of West Grantosa Avenue Bridges

Complete the work necessary to reopen West Grantosa Drive to all lanes by August 12, 2022.

If the contractor fails to complete the work necessary to reopen West Grantosa Drive to all lanes prior by August 12, 2022, the department will assess the contractor \$1,000 in interim liquidated damages per day for each calendar day after 12:01 AM on August 13, 2022, that any lanes on bridges within the project limits are closed to traffic. An entire calendar day will be charged for any period of time within a calendar day that any lanes on bridges within the project limits are closed beyond 12:01 AM.

Project 1360-11-70: Interim Completion of Flagg Avenue

Complete the work necessary to reopen Flagg Avenue to all lanes within 42 calendar days of the closure date.

If the contractor fails to complete the work on project 1360-11-70 necessary to reopen Flagg Avenue to all lanes within 42 calendar days of the closure date, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day that all lanes of Flagg Avenue are not open beyond 42 calendar days. An entire calendar day will be charged for any period of time within a calendar day that all lanes of Flagg Avenue are not open beyond 12:01 AM.

Project 1360-15-70: Interim Completion of Service Ramps (except Park Place Service Ramp)

Once a service ramps (except for the Park Place service ramp) is closed for construction, complete the work necessary to reopen the service ramps within 7 calendar days of the closure date.

If the contractor fails to complete the work necessary to reopen the service ramps (except for the Park Place service ramp) within 7 calendar days of the closure date, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day that the service ramps are not open beyond 7 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the service ramps are not open beyond 12:01 AM.

Project 1360-15-70: Interim Completion of Park Place Service Ramp

Complete the work necessary to reopen the Park Place service ramp within 14 calendar days of the closure date.

If the contractor fails to complete the work necessary to reopen the Park Place service ramp within 14 calendar days of the closure date, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day that the Park Place service ramp is not open beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the Park Place service ramp is not open beyond 12:01 AM.

Project 1360-17-70: Interim Completion of STH 175 Polymer Overlay

Complete the work necessary to reopen STH 175 to all lanes within 20 calendar days of the closure date.

If the contractor fails to complete the work necessary to reopen STH 175 to all lanes within 20 calendar days of the closure date, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day that all lanes of STH 175 are not open beyond 20 calendar days. An entire calendar day will be charged for any period of time within a calendar day that all lanes of STH 175 are not open beyond 12:01 AM.

Project 1360-17-70: Interim Completion of STH 181 Polymer Overlay

Complete the work necessary to reopen STH 181 to all lanes within 20 calendar days of the closure date

If the contractor fails to complete the work necessary to reopen STH 181 to all lanes within 20 calendar days of the closure date, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day that all lanes of STH 181 are not open beyond 20 calendar days. An entire calendar day will be charged for any period of time within a calendar day that all lanes of STH 181 are not open beyond 12:01 AM.

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

Fish Spawning

There shall be no instream disturbance of the tributary to the Menomonee River as a result of construction activity under or for this contract, from March 1 to June 12 both dates inclusive, in order to avoid adverse impacts upon the spawning and migration of fish and other aquatic organisms.

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

Northern Long-eared Bat (*Myotis septentrionalis*)

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

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

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

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

4. Lane Rental Fee Assessment.

A General

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

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

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

B Lane Rental Fee Assessment

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

- Nighttime (STH 145 northbound and southbound)- \$1,500 per lane, per hour broken into 15-minute increments
- Service Ramp for nighttime closure (STH 145 northbound and southbound) - \$1,000 per ramp, per hour broken into 15-minute increments

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

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

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

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

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

stp-108-070 (20161130)

5. Traffic.

Provide the Milwaukee County Sheriff's Department, the City of Milwaukee Police Department, and the engineer a current telephone number with which the contractor or their representative can be contacted during non-working hours in the event a safety hazard develops.

Do not park or store equipment, contractor's and personal vehicles or construction materials within the clear zone or on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Do not permit construction or personnel equipment or vehicles to directly cross the live traffic lanes of STH 145. Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the highway. Do not cross live traffic lanes of STH 145 with equipment or vehicles.

Obtain prior approval from the engineer for the locations of egress or ingress for construction vehicles to prosecute the work.

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

Replace standard spec 643.3.1.(7) with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.

ID 1360-11-70

Stage 1

- Close westbound lanes of West Grantosa Avenue.
- Detour pedestrians to south side of structure.
- Nighttime closure of STH 145 for West Grantosa Avenue deck removal and deck pours.
- Flagg Avenue closed to through traffic but open to emergency vehicles. Emergency vehicles will use eastbound lanes of Flagg Avenue underneath the structures.
- Detour westbound West Grantosa Avenue as shown in the plans.
- Detour Flagg Avenue as shown in the plans.

Stage 2

- Close eastbound lanes of West Grantosa Avenue to construct eastbound structure. Detour pedestrians to north side of structure.
- Nighttime closure of STH 145 for West Grantosa Avenue deck removal and deck pours.
- Flagg Avenue closed to through traffic but open to emergency vehicles. Emergency vehicles will use westbound lanes of Flagg Avenue underneath the structures.
- Detour eastbound West Grantosa Avenue as shown in the plans.
- Maintain detour for Flagg Avenue.

Contact Matthew Cowap, (414) 750-1748, matthew.cowap@dot.wi.gov if detour requires timing changes at the following intersections:

N. 76th Street (STH 181) and West Florist Avenue

N 76th Street (STH 181) and West Fond du Lac Avenue

N 76th Street (STH 181) and West Villard Avenue

N 76th Street (STH 181) and West Silver Spring Drive

ID 1360-15-70 and 1360-16-70

Stage 1

- Close two outside lanes and outside shoulder of STH 145.
- Close exit ramp from eastbound STH 145 to 76th Street.
- Close exit ramps from westbound STH 145 to 107th Street, Silver Spring, and 76th Street.
- Close on exit and entrance ramps one at a time as needed.
- Close sidewalks for curb ramp construction for a maximum of 7 days. Coordinate curb ramp construction with associated freeway ramp closure where possible.

Stage 2

- Close two inside lanes and inside shoulder of STH 145.

Nighttime Closure

- Close STH 145 and entrance ramps.
- Only one direction of STH 145 shall be closed at a time.

Ramp Closures

- All entrance and exit ramps shall be posted three business days in advance of their closure with dates and time of closure.
- No two consecutive entrance ramps or consecutive exit ramps may be closed unless it is shown in the traffic control plans or approved by the engineer.

ID 1360-17-70

Lane closures on STH 181 for the thin polymer overlay are not allowed while the signed detours for westbound West Grantosa Avenue are in place under ID 1360-11-70.

Stage 1A

- Close outside lanes and outside shoulder of STH 175 and STH 181. Detour pedestrians to east side of structures.
- Close median openings at entrance ramps to Silver Spring to prevent left turns from STH 175 and STH 181.
- Close left lane of Silver Spring exit ramps to prevent left turns at STH 175 and STH 181.

Stage 1B

- Maintain outside lane and outside shoulder closures on STH 175 and STH 181. Detour pedestrians to west side of structures.
- Maintain median closures at entrance ramps to Silver Spring.
- Maintain left lane closures of Silver Spring exit ramps.

Stage 2

- Close inside lanes of STH 175 and STH 181.
- Maintain median closures at entrance ramps to Silver Spring.
- Maintain left lane closures of Silver Spring exit ramps.

Full Freeway Closure Hours

- 9:00 PM Sunday, Monday, Tuesday, Wednesday, and Thursday to 5:00 AM the following day.
- 9:00 PM Friday and Saturday to 7:00 AM the following day.

Full closure and detouring of freeway roads will be restricted to one direction at a time and to Full Freeway Closure Hours. The freeway may be closed for the base patching, milling, resurfacing of the center lane of USH 145 and for the bridge deck removal and deck pour of the West Grantosa Avenue structures. Provide signed detour routes, as the plans show that are fully open and free of construction during all full freeway closures.

Notify City of Milwaukee DPW in advance of overnight mainline closures and coordinate with emergency responders and elected officials.

Freeway Ramp Closure Restrictions

- Entrance and exit ramps to and from STH 145 may be closed a maximum of 7 calendar days.
- The Good Hope ramp to Park Place may be closed for a maximum of 14 days.

No two consecutive entrance ramps or consecutive exit ramps may be closed unless it is shown in the traffic control plans or approved by the engineer. The ramps may be closed for the base patching, milling, and resurfacing of the ramps. No detours will be required for the ramp closures.

Lane Closure Restrictions

- Flagg Avenue may be closed for a maximum of 42 calendar days.
- Lane closures for the STH 175 polymer overlays are allowed for a maximum of 20 days.
- Lane closures for the STH 181 polymer overlays are allowed for a maximum of 20 days.

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

Emergency Vehicle Access

Maintain emergency vehicular access at all times to roadways located within the project limits

Local Vehicle Access

Close driveways only for the minimum time required to construct new access approaches. Prior to removal or closing of driveway access, provide 48-hour notice to the occupant and owner of the premises. Driveway shall be closed for a maximum of 3 days for HES driveways and 7 days for non-HES driveways.

Business Access

Contact businesses which have entrances within the project limits seven days prior to performing work which may affect the entrances. Confirm the closure with the property owner two days prior to use. If a business has two driveways, keep one open while constructing the other driveway. If a property has one driveway, construct one half at a time or coordinate closure with the property owner.

6. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 145, STH 175, STH 181, IH-41 and West Grantosa Drive traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day;
- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 for Independence Day;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day.

stp-107-005 (20210113)

7. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 9:00 PM until the following 7:00 AM, unless prior written approval is obtained from the engineer.

stp-107-001 (20060512)

8. Utilities.

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

stp-107-065 (20080501)

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when the prior work will be completed, and the site will be available to the utility owner. Follow-up with a confirmation notice to the engineer and the utility owner not less than three working days before the site will be ready for the utility owner to begin its work.

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 state statute. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

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

There may be discontinued utility facilities within the project limits. If a conflict with a discontinued utility facility is encountered, contact the appropriate utility owner/representative to coordinate construction activities and proper removal and disposal of said facility as necessary.

Known utilities in the project area are as follows:

ID 1360-11-70

AT&T Wisconsin has existing facilities inside the project limits. There is aerial fiber optic on We Energies poles that cross Grantosa Ave on the east side of the Grantosa structures at approximately Station 21+35 approximately 15 feet east of the abutment. We energies poles will remain in place. The AT&T Wisconsin contact is Jay Bulanek, (262) 896-7669.

ATC Management, Inc. has existing facilities inside the project limits, but no conflicts are anticipated. The ATC Management contact is Chris Daley, (262) 506-6884.

City of Milwaukee-CUC has existing facilities inside the project limits. The City of Milwaukee will discontinue facilities across the W. Grantosa Drive bridge in place prior to the start of road construction. CUC removals and installation of new conduit on the eastbound W. Grantosa Drive and across Structure B-40-281 will be completed by the contractor as part of the project. Construct CUC items as shown in the plans and in the bid items for this project. The City of Milwaukee-CUC contact is Karen Rogney, (414) 286-3243.

City of Milwaukee-Electricity-Traffic Signals has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-Electricity-Traffic Signal contact is Rudy Gutierrez, (414) 286-5941, mobile (414) 708-5148.

City of Milwaukee-Sewer has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-Sewer contact is Zafar Yousuf, (414) 286-2467.

City of Milwaukee-Street Lighting has existing facilities inside the project limits. Proposed lighting improvements on the W. Grantosa Bridges and approaches will be made by the contractor as part of the project. Construct street lighting items as shown in the plans and in the bid items for this project.

The City of Milwaukee street lighting forces will install, maintain, relocate or remove temporary street lighting facilities. City of Milwaukee street lighting personnel will install six temporary wood poles, string overhead facilities and remove three existing light poles prior to construction on the north bridge (Stage 1) of W. Grantosa Drive. The engineer and/or contractor shall keep the Street Lighting Construction supervisors informed of the status of the roadway construction. Contact the city 21 working days in advance of construction for the installation of the temporary lighting. This is five days in excess of the standard 14 to 16 day notice.

The contractor will be responsible for damage caused by their operations to the lighting system prior to the temporary lighting being operational.

After the completion of the north bridge (Stage 1) of W. Grantosa Drive, the contractor is to provide and install two aluminum light pole units on the bridge blisters. Construct street lighting items as shown in the plans and in the bid items for this project.

City of Milwaukee street lighting personnel will remove temporary overhead facilities from the south bridge, string overhead facilities on the north bridge, and remove two existing light poles before the construction starts on south bridge (Stage 2) of West Grantosa Drive.

After the completion of both bridges and the roadway construction, City of Milwaukee street lighting forces will install permanent cabling and ballasts and remove the remaining temporary overhead facilities.

The contractor is to inform the street lighting contact of the status of the conduit installation. The street lighting contact is to be informed after the conduit is installed for street lighting to inspect, and before any concrete or backfill is placed over the conduit.

The city requires three working days for work performed during construction and 25 working days after construction for the installation of permanent facilities and removal of temporary facilities. Contact Neal Karweik at (414) 286-5943, mobile (414) 708-4245 or Morgan Monnot at (414) 286-5942, mobile (414) 708-4251. If neither Mr. Karweik nor Mr. Monnot are available, then contact the dispatcher at (414) 286-5944.

The contractor must keep the area behind the curb free from over pour and other debris. The contractor will be responsible for costs incurred by street lighting forces cleaning debris from behind the curb necessary to complete their work.

The contractor will be responsible for all costs incurred by Street Lighting personnel for the relocation of any street lighting facilities, permanent or temporary after installation for the contractor's convenience..

After the project has been completed the contractor is responsible to provide as-built drawings detailing the final placement of conduit, pull boxes, light poles, equipment, and geometric modifications. Provide PDF copy conforming to CMM 1-65.14.

The City of Milwaukee-Lighting contact is Mark Mac Rae at (414) 286-5928, mobile (414) 708-0434.

City of Milwaukee-Water (Milwaukee Water Works) has existing facilities inside the project limits.

Water valve box adjustment at Station 21+64, 1.2' LT and Station 21+61, 37' RT will be made by the contractor as part of the project. Adjust water valve boxes to match the new finished elevation. Perform this work according to the requirements of Adjusting Water Valve Boxes. The Milwaukee Water Works contact is Dave Goldapp, (414) 286-6301, mobile (414) 708-2695.

Midwest Fiber Networks, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Midwest Fiber Networks contact is Corey Schmuki, (414) 459-3561, mobile (414) 349-2764.

Milwaukee Metropolitan Sewerage District (MMSD) has existing facilities inside the project limits. A manhole located at Station 19+18, 22' LT in the proposed concrete approach slab will be adjusted by MMSD during construction. Contact MMSD three business days in advance to arrange adjustment of the manhole. Manhole adjustment will take half a day. The MMSD contact is Micki Klappa-Sullivan, (414) 225-2178, mobile (414) 416-5389.

Sprint Communications Co LP has existing facilities inside the project limits, but no conflicts are anticipated. The Sprint contact is Eric Simonsen, (715) 304-3008.

Verizon has existing facilities inside the project limits, but no conflicts are anticipated. The Verizon contact is RJ Cicatello, (262) 232-1323.

We Energies-Electric has existing facilities inside the project limits. We Energies has overhead lines on the east side of the Grantosa structures at approximately Station 21+35 approximately 15 feet east of the abutment. We energies poles will remain in place. The We Energies-Electric contact is Travis Bangart, (414) 944-5634, mobile (414) 313-6479. We Energies Electric Dispatch, 1 (800) 662-4797.

We Energies-Gas has existing facilities inside the project limits. We Energies plans to discontinue and remove facilities across the W. Grantosa Drive bridge prior to the start of road construction. The We Energies-Gas contact is Jacob Hulbert, (414) 944-5575, mobile (608) 574-1241. We Energies Gas Dispatch, 1 (800) 261-5325.

WisDOT Street Lighting has existing facilities inside the project limits, but no conflicts are anticipated. The WisDOT Street Lighting contact is Eric Perea, (262) 574-5422.

ID 1360-15-70 and 1360-16-70

AT&T Local Network – TCA- Northwind has existing facilities inside the project limits, but no conflicts are anticipated. AT&T Local Network – TCA – Northwind Company contact is Dale Defever, (586) 242-2671, mobile (586) 242-2671.

AT&T Wisconsin has existing facilities inside the project limits. Manholes located at Station 22+90, 20' LT and Station 223+00, 15' LT will be adjusted by AT&T during construction. Contact AT&T to arrange adjustment of the manhole. Each manhole adjustment will take one working day per location. The AT&T Wisconsin contact is Jay Bulanek, (262) 896-7669.

ATC Management, Inc. has existing facilities inside the project limits, but no conflicts are anticipated. The ATC Management contact is Chris Daley, (262) 506-6884.

City of Milwaukee-CUC has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-CUC contact is Karen Rogney, (414) 286-3243.

City of Milwaukee-Communications has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-Communications contact is Joseph Maciejewski, (414) 708-7992.

City of Milwaukee-Electricity-Traffic Signals has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-Electricity-Traffic Signal contact is Rudy Gutierrez, (414) 286-5941, mobile (414) 708-5148.

City of Milwaukee-Sewer has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-Sewer contact is Zafar Yousuf, (414) 286-2467.

City of Milwaukee-Water (Milwaukee Water Works) has existing facilities inside the project limits. Two water valve box adjustments at Station 221+43, 56' RT and Station 221+47, 57' RT will be made by the contractor as part of the project. Adjust water valve boxes to match the new finished elevation. Perform this work according to the requirements of Adjusting Water Valve Boxes. The Milwaukee Water Works contact is Dave Goldapp, (414) 286-6301, mobile (414) 708-2695.

Everstream has existing facilities inside the project limits, but no conflicts are anticipated. The Everstream contact is Shad Garcia, (414) 409-1708, mobile (414) 522-6685.

Lumen (Formerly Centruylink/Level 3 Communications) has existing facilities inside the project limits, but no conflicts are anticipated. The Lumen contact is Brahim Gaddour, (414) 908-1027, mobile (414) 704-1026.

Midwest Fiber Networks, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Midwest Fiber Networks contact is Corey Schmuki, (414) 459-3561, mobile (414) 349-2764.

Milwaukee Metropolitan Sewerage District (MMSD) has existing facilities inside the project limits, but no conflicts are anticipated. The MMSD contact is Micki Klappa-Sullivan, (414) 225-2178, mobile (414) 416-5389.

PaeTec Communications, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The PaeTec Communications contact is Eric Becker, (920) 461-9825.

Spectrum Mid-America LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Spectrum contact is Beau Abuya, (414) 758-9241.

Sprint Communications Co LP has existing facilities inside the project limits, but no conflicts are anticipated. The Sprint contact is Eric Simonsen, (715) 304-3008.

Lawrence J Timmerman Airport has existing facilities inside the project limits, but no conflicts are anticipated. The Timmerman Airport contact is James Zsebe, (414) 747-5394.

Verizon Business has existing facilities inside the project limits, but no conflicts are anticipated. The Verizon contact is RJ Cicatello, (262) 232-1323.

We Energies-Electric has existing facilities inside the project limits. We Energies electric manhole located at approximately Station 221+91, 44.5' RT will be discontinued prior to construction. The We Energies-Electric contact is James Franks, (262) 502-6811. We Energies Electric Dispatch, 1 (800) 662-4797.

We Energies-Gas has existing facilities inside the project limits. We Energies plans to discontinue facilities across the W. Grantosa Drive bridge in place prior to the start of road construction. The We Energies-Gas contact is Alex Dantine, (920) 621-6903. We Energies Gas Dispatch, #1 (800) 261-5325.

West Shore Pipe Line (Buckeye Pipelines) has existing facilities inside the project limits, but no conflicts are anticipated. The Buckeye Pipelines contact is Aric Aufdermauer, (414) 391-8102).

Wisconsin Independent Network, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Wisconsin Independent Network, LLC contact is Jim Birkenheier, (715) 838-4007).

WisDOT ATR has an existing ATR facilities at approximately Station 28+90 RT and LT, Station 126+00, RT, Station 126+10, LT, Station 201+80, RT and Station 201+85, LT. The existing loops in the HMA pavement can be milled through and will not be replaced. The WisDOT ATR contact is Russell Lewis, (608) 516-5754, mobile (608) 516-5754.

WisDOT Communications line has existing facilities inside the project limits. Work will be completed as part of the project. Construct communication items as shown in the plans and in the bid items for this project. The WisDOT Communications line contact is John Mittelstadt, (608) 205-7859.

WisDOT Street Lighting has existing facilities inside the project limits. Lighting removals and improvements will be made by the contractor as part of the project. Construct street lighting items as shown in the plans and in the bid items for this project. The WisDOT Street Lighting contact is Eric Perea, (262) 574-5422.

WisDOT Signals has existing facilities inside the project limits. Signal improvements at the STH 145 intersection with W. Fond du Lac Avenue will be completed by the contractor as part of the project. Construct signal items as shown in the plans and in the bid items for this project. The WisDOT Signal Operations contact is (414) 750-2605, mobile (414) 266-1170.

ID 1360-17-70

AT&T Local Network – TCA- Northwind has existing facilities inside the project limits, but no conflicts are anticipated. AT&T Local Network – TCA – Northwind Company contact is Dale Defever, (586) 242-2671, mobile (586) 242-2671.

AT&T Wisconsin has existing facilities inside the project limits, but no conflicts are anticipated. The AT&T Wisconsin contact is Jay Bulanek, (262) 896-7669.

City of Milwaukee-CUC has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-CUC contact is Mark MacRae, (414) 286-5928, mobile (414) 286-0434.

City of Milwaukee-Communications has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee Communications Dispatch number is (414) 286-3686.

City of Milwaukee-Sewer has existing facilities inside the project limits, but no conflicts are anticipated. The City of Milwaukee-Sewer contact is Zafar Yousuf, (414) 286-2467.

City of Milwaukee-Water (Milwaukee Water Works) has existing facilities inside the project limits, but no conflicts are anticipated. The Milwaukee Water Works contact is Dave Goldapp, (414) 286-6301, mobile (414) 708-2695.

Lumen (Formerly Centurylink/Level 3 Communications) has existing facilities inside the project limits, but no conflicts are anticipated. The Lumen contact is Brahim Gaddour, (414) 908-1027, mobile (414) 704-1026.

Milwaukee County DPW has existing facilities inside the project limits, but no conflicts are anticipated. The Milwaukee County DPW contact is Daniel Murphy, (414) 257-5942.

PaeTec Communications, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The PaeTec Communications contact is Eric Becker, (920) 461-9825.

Spectrum Mid-America LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Spectrum contact is Beau Abuya, (414) 758-9241.

Verizon Business has existing facilities inside the project limits, but no conflicts are anticipated. The Verizon contact is RJ Cicatello, (262) 232-1323.

We Energies-Electric has existing facilities inside the project limits, but no conflicts are anticipated. The We Energies-Electric contact is Alex Dantinne, (920) 621-6903. We Energies Electric Dispatch, 1 (800) 662-4797.

We Energies-Gas has existing facilities inside the project limits, but no conflicts are anticipated. The We Energies-Gas contact is Jacob Hulbert, (414) 944-5575, mobile (608) 574-1241. We Energies Gas Dispatch, 1 (800) 261-5325.

West Shore Pipe Line (Buckeye Pipelines) has existing facilities north of the box culverts outside of the current project limits. Ensure no construction vehicles cross Buckeye's pipeline off of the pavement. The Buckeye Pipelines contact is Aric Aufdermauer, (414) 391-8102.

Windstream KDL, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Windstream KDL contact is Eric Becker, (920) 461-9825.

Windstream NTI, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Windstream NTI contact is Eric Becker, (920) 461-9825.

Wisconsin Independent Network, LLC has existing facilities inside the project limits, but no conflicts are anticipated. The Wisconsin Independent Network, LLC contact is Jim Birkenheier, (715) 838-4007.

WisDOT Communications line has existing facilities inside the project limits but no conflicts are anticipated. The WisDOT Communications line contact is John Mittelstadt, (608) 205-7859.

WisDOT Street Lighting has existing facilities inside the project limits, but no conflicts are anticipated. The WisDOT Street Lighting contact is Eric Perea, (262) 574-5422.

WisDOT Signals has existing facilities inside the project limits, but no conflicts are anticipated. The WisDOT Electric Field Unit contact is (414) 266-1170.

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 David C. LaPlante, Senior Manager-Real Estate-Special and Public Projects, 1400 Douglas St. STOP 1690, Omaha, NE 68179; Telephone: (402) 544-8563; E-mail: dclaplane@up.com.

Also send a copy to the following: Joshua Lee, SE Region Railroad Engineer; 141 N. W. Barstow Street, Waukesha, WI 53188; Telephone (262) 548-8673; E-mail: joshua.lee@dot.wi.gov.

Include the following information on the insurance document:

- Project ID: 1360-15-70
- Project Location: City of Milwaukee, WI
- Route Name: STH 145, Fond du Lac Freeway, Milwaukee County
- Crossing ID: 178874X
- Railroad Subdivision: Shoreline
- Railroad Milepost: 98.58
- Work Performed: HMA Milling, HMA Paving, Concrete Barrier Wall, Curb and Gutter, Beam Guard

A.2 Train Operation

Approximately 2 through freight train operates daily at up to 25 mph. No switching trains at crossing.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination

Construction Contact

Chris T. Keckeisen, Manager Special Projects - Industry & Public Projects Engineering Department; 1400 Douglas, MS 0910, Omaha, NE, 68179; Telephone (402) 5445131; E-mail ctkecke@up.com or Richard Ellison, Project coordinator, 207 Powell Avenue, Labadie, MO, 63055; Telephone (847) 323-7197; E-mail richardellison@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.

Flagging Contact

See Construction Contact. If more than 30 days of flagging is required contact UP 30 days prior to needing a flagger on site. Reference the Wisconsin Milepost and Subdivision located in A.1.

Cable Locate Contact

In addition to contacting Diggers Hotline, contact the UP Call Before You Dig line at (800) 336-9193 at least five working days before the locate is needed. Normal business hours are 6:30 AM to 6:30 PM, Central Time, Monday through Friday, except holidays and are subject to change. Calls will be routed at all times in case of an emergency. Reference the Wisconsin Milepost and Subdivision located in A.1.

UP will only locate railroad owned cable buried in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 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.5 Temporary Grade Crossing

If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 at least 40 days 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.6 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 are shown under the railroad's name.

The security awareness and contractor orientation certification is valid for 2 year(s) and must be renewed for projects that will carry over beyond the 2 year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.

stp-107-026 (20200629)

10. Other Contracts.

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

The following projects may be under construction concurrently with the work under this contract.

Coordinate activities, detours, work zone traffic control, roadway and lane closures, and other work items as required with other contracts.

Project 1100-17-76

IH-41, Good Hope Road to Waukesha County Line

Diamond grind and base patching

Contact: Joe Gallamore; (262) 548-5601; joe.gallamore@dot.wi.gov

11. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Christine Hanna at (414) 750-1555.

stp-107-054 (20210113)

12. Information to Bidders, WPDES General Construction Storm Water Discharge Permit.

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Christine Hanna (Design Project Manager) at (414) 750-1555. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

13. Environmental Protection, Aquatic Exotic Species Control.

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

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

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels before being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Guidelines from the Wisconsin Department of Natural Resources for disinfection are available at:

<http://dnr.wi.gov/topic/invasives/disinfection.html>

Use the following inspection and removal procedures:

1. Before leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can before leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
 - 4.1. Washing with ~212 F water (steam clean), or
 - 4.2. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - 4.3. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore, this disinfect should be used in conjunction with a hot water (>104° F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.

stp-107-055 (20130615)

14. Erosion Control

Add the following to standard spec 107.20 as paragraphs nine through fifteen:

- (9) Erosion control best management practices (BMP's) the plans show are at suggested locations. The actual locations shall be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP shall supplement information the plans show and not reproduce it. The ECIP shall identify how to implement the project's erosion control plan. ECIP shall demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of top soil to minimize the exposure to possible erosion.
- (10) Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison (Kristina Betzold, (414) 263-8517, Kristina.Betzold@wisconsin.gov, 2300 N Martin Luther King Dr, Milwaukee, WI 53212. Do not implement the ECIP until department approval, and perform all work conforming to the approved ECIP.
- (11) Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.

- (12) Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Install perimeter silt fence protection around stockpiles within a timeframe acceptable to the engineer. If stockpiled materials will be left for more than 14 days, install temporary seed and mulch or other temporary erosion control measures the engineer orders.
- (13) Re-apply topsoil on graded areas, as designated by the engineer, within a timeframe acceptable to the engineer after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat topsoiled areas, as designated by the engineer, within 5 days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed and mulch.
- (14) Do not allow excavation for; structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Before each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, conforming to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection.
- (15) Dewatering is incidental.
- (16) When performing saw cutting operations, squeegee the saw cut slurry to the curb apron, and remove this material as approved by the engineer. Saw cut slurry, grinding and chipping waste must be collected during the process and not allowed to run or fall unmanaged into wetlands.

sef-107-010 (20180104)

15. Environmental Protection for Culvert Work

Supplement standard spec 107.18 with the following:

There are numerous existing culvert pipes requiring cleaning and/or work on the endwalls that are within or adjacent to wetland areas. Limit wetland disturbance as much as possible unless some ditch grading is required. Equipment used in this area shall exert low ground pressure (no wheeled vehicles) or be done by hand. Use silt fence to protect adjacent wetland areas from siltation and disturbance.

The contractor will be allowed to isolate the work area with bypass pumping for one working day to clean each culvert.

Protect wetlands against erosion and sedimentation during the construction phase of the project. Do not place any fills in waterways or wetlands.

Properly dispose of all sediment removed from the cleaning process at a site that is approved by the engineer.

Divert flow in any drainage ditches that have twin culverts. Use rock bags to isolate the flow into the second culvert while cleaning the first. If site dewatering is required, pump the sediment-laden water into an adequately sized sediment basin prior to discharging it to a ditch, wetland or waterway.

Utilize all best management practices for erosion control for this work as directed by the engineer. Restore any disturbed area around the work area with specified landscaping as directed by the engineer.

16. Environmental Protection.

Supplement standard spec 107.18:

The contractor shall not store materials, equipment or topsoil within 100' of any wetlands.

The contractor shall not impact, store materials, equipment or topsoil outside of the existing roadbed on the B-40-271/272, B-40-274/275, B-40-276/277, B-40-328 and B-40-766 thin polymer overlays.

The contractor shall not cause ground disturbance or temporary disturbances to vegetation on the south side STH 145 at Structure C-40-005. Access for repairs at this box culvert will be from the northern entrance to the box culvert in the infield between STH 145 and IH-41.

17. Notice to Contractor – Contamination Beyond Construction Limits.

The department completed testing for soil and ground water contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present beyond the project limits at the following location:

1. Station 203+60 to 204+00 from 40 feet right of reference line to 75 feet right of reference line, from 1 to 6 feet below grade.

Contaminated soil at this location is beyond the excavation limits necessary to complete the work under this project. Control construction operations near this location to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soil and/or groundwater is encountered near this site or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting:

Andrew Malsom
WisDOT SE Region
141 NW Barstow St.
Waukesha, WI 53187
(262) 548-6705

18. Notice to Contractor, Verification of Asbestos Inspection, No Asbestos Found.

B-40-278

John Roelke, License Number All-119523, inspected Structure B-40-278 for asbestos on September 25, 2018. No regulated Asbestos Containing Material (RACM) was found on this structure.

B-40-279

John Roelke, License Number All-119523, inspected Structure B-40-279 for asbestos on September 25, 2018. No regulated Asbestos Containing Material (RACM) was found on this structure.

A copy of the inspection reports are available from: Christine Hanna at (414) 750-1555.
stp-107-127 (20120615)

19. Notice to Contractor – Contamination Beyond Construction Limits.

The department completed testing for soil contamination at locations within this project where excavation is required. The testing indicated that petroleum-contaminated soil is present beyond the project limits at the following location:

1. Station 203+60 to 204+00, from 40 feet right of reference line to 75 feet right of reference line, from 1 to 6 feet below grade.

Contaminated soil at this location is beyond the excavation limits necessary to complete the work under this project. Control construction operations near this location to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soil and/or groundwater is encountered near this site or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting:

Andrew Malsom
WisDOT SE Region
141 NW Barstow St.
Waukesha, WI 53187
(262) 548-6705

107-100 (20050901)

20. Notice to Contractor – Traffic Signal Equipment Lead Time.

Order traffic signal equipment as soon as possible to assure the equipment is procured in a timely fashion and, therefore, installed, inspected, and ready for turn-on at the required date.

21. Notice to Contractor – FAA Airspace Notice.

Project 1360-17-00 involves installing a polymer overlay on several bridge decks in the vicinity of L.J. Timmerman Airport. If equipment, greater than 20' used in construction, an airspace case needs to be filed with the FAA for the equipment at least 60 days prior to construction.

22. Notice to Contractors – Milwaukee County Transit System.

The Milwaukee County Transit System (MCTS) operates several bus routes within and directly adjacent to the construction limits. Invite MCTS to all coordination meetings between the contractor, the department, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations.

Notify MCTS at least ten business days prior to beginning work. If necessary, MCTS will remove their existing bus stop signs and shelters before work begins and re-install or replace bus stop signs and shelters before new pavement opens to vehicular traffic.

The MCTS contact is:

David Locher
Milwaukee County Transit System – Transportation Manager
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1727
dlocher@MCTS.org

23. Construction Over or Adjacent to Navigable Waters.

The Little Menomonee River is classified as a state navigable waterway under standard spec 107.19.
stp-107-060 (20171130)

24. Traffic Signals, General.

Note that failure to comply with the state standards and specifications may result in the cost of the corrections to be made at the contractor's expense. Also, any additional disruption of department-owned facilities shall be repaired or relocated as needed at the contractor's expense.

Notify the department's Electrical Field Unit at (414) 266-1170 at least three weeks prior to the beginning of the traffic signal work.

Furnish the engineer with material lists and specifications of all traffic control equipment for approval prior to installation.

**25. Abatement of Asbestos Containing Material B-40-280, Item 203.0210.S.01;
Abatement of Asbestos Containing Material B-40-281, Item 203.0210.S.02.**

A Description

This special provision describes abating asbestos containing material on structures.

B (Vacant)

C Construction

B-40-280

Ross Hartwick, License Number All-195369, inspected Structure B-40-280 for asbestos on July 20, 2017. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: The gasket located under the railing attachment plates on the concrete parapet. The RACM material is estimated at 14.5 square feet and is classified as non-friable.

B-40-281

Ross Hartwick, License Number All-195369, inspected Structure B-40-281 for asbestos on July 20, 2017. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: The gasket located under the railing attachment plates on the concrete parapet and the transite pipes under the bridge. The RACM material of the gaskets is estimated at 14.5 square feet and is classified as non-friable. The RACM material of the transite pipes is estimated at 1,248 square feet and is classified as friable.

The RACM on these structures must be abated by a licensed abatement contractor. A copy of the inspection reports is available from Christine Hanna at (414) 750-1555. According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form and the abatement report to Christine Hanna at (414) 750-1555 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:

B-40-280

- Site Name: Structure B-40-280, W Grantosa Dr WB over STH 145-W Fond Du Lac Av
- Site Address: 0.2M E JCT STH 181; 430645.32N, 880008.85W
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow Street, P.O. Box 798, Waukesha, WI 53187-0798
- Contact: Christine Hanna
- Phone: (414) 750-1555
- Age: 56 years. This structure was constructed in 1965.
- Area: 9,018 SF of deck

B-40-281

- Site Name: Structure B-40-281, W Grantosa Dr EB over STH 145-W Fond Du Lac Av
- Site Address: 0.2M E JCT STH 181; 430643.19N, 880010.16W
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow Street, P.O. Box 798, Waukesha, WI 53187-0798
- Contact: Christine Hanna
- Phone: (414) 750-1555
- Age: 56 years. This structure was constructed in 1965.
- Area: 9,018 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 as specified in 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 according to the contract and accepted, as a single complete lump sum unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
203.0210.S.01	Abatement of Asbestos Containing Material B-40-280	LS
203.0210.S.02	Abatement of Asbestos Containing Material B-40-281	LS

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

stp-203-005 (20120615)

26. Removing Concrete Barrier.

Add the following to standard spec 204.3.2.2.1:

Under the Removing Concrete Barrier bid item, remove barrier to the depth and location the plans show. Removal includes all required sawing according to standard spec 690. Remove lighting conduit so not to damage existing conduit in adjacent barrier section to remain. Remove the concrete barrier so that the longitudinal steel bars are not damaged and can provide a minimum Class B lap splice with new barrier longitudinal reinforcement.

Add the following to standard spec 204.5.1(2):

Payment for Removing Concrete Barrier is full compensation for furnishing all required sawing of existing barrier, removal of barrier, saving of lap splice reinforcement, removal of lighting conduit and sludge removal.

27. Removing Concrete Bases, Item 204.0195.

Supplement standard spec 204.3.2.1(2) with the following:

For the Type 13 concrete base shown on the removal plans, break down and remove the concrete base material to a depth of 2 feet below grade. Fill the area to grade with similar material as adjacent to the base (granular backfill, topsoil, seed, etc). Do not remove the full depth concrete base or wingwalls.

28. Removing Sign Bridge Lighting Units, Item 204.9060.S.01.

A Description

This special provision describes removing existing luminaires and lamps bridge decks and sign bridges as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided. High mast lighting towers, light poles and bridge deck shall remain in service.

B Materials

Removed luminaires and lamps become the property of the contractor and shall be disposed off the project site. Luminaire lamps, which are considered a hazardous material, shall be disposed of in an environmentally sound manner.

C Construction

No removal work will be permitted without approval from the engineer. Removal shall start as soon as the permanent lighting, as applicable, is placed in approved operation. An inspection and approval by the engineer will take place before any associated proposed permanent is approved for operation.

D Measurement

The department will measure Removing Luminaires (type) by each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Luminaires Utility	EACH

29. Removing Traffic Signals STH 145 & Fond du Lac Avenue, Item 204.9105.S.01.

A Description

This special provision describes removing existing traffic signals as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, emergency vehicle preemption heads (evp), mast arms, luminaires, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Ensure that all access hand-hole doors and all associated hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off the state right-of-way. Deliver the remaining materials to the West Allis Electrical Service Facility at 935 South 60th Street, West Allis, Milwaukee County. Contact the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to delivery to make arrangements.

DOT forces shall remove the signal cabinet from the footing. The signal cabinet and associated signal cabinet equipment will be removed from the site by DOT forces and will remain the property of the department

D Measurement

The department will measure Removing Traffic Signals as a single lump sum of work for each intersection, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.01	Removing Traffic Signals STH 145 & Fond du Lac Avenue	LS

30. Removing Loop Detector Wire and Lead-in Cable STH 145 & Fond du Lac Avenue, Item 204.9105.S.02.

A Description

This special provision describes removing loop detector wire and lead-in cable as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided.

B (Vacant)

C Construction

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the loop detector wire and lead-in cable.

Remove and dispose of detector lead-in cable including loop wire for abandoned loops off the project site.

D Measurement

The department will measure Remove Loop Detector Wire and Lead-in Cable as a single lump sum unit for each intersection, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.02	Removing Loop Detector Wire and Lead-In Cable STH 145 & Fond du Lac Avenue	LS

31. Removal of Underdeck Hardware Item 204.9105.S.03.

A Description

This special provision describes removing existing above ground underdeck conduit, wiring and junction boxes as shown on the plans, according to the pertinent provisions of 204 of the standard specs, and as hereinafter provided.

B (Vacant)

C Construction

Remove and dispose of off the project site above ground underdeck conduit, wiring and junction boxes at the following structures.

- Silver Spring Drive over STH 145
- 76th Street over STH 145
- Grantosa Drive over STH 145

D Measurement

The department will measure Removal of Underdeck Hardware as a single lump sum unit for the project, acceptably completed.

E Payment

Add the following to standard specification 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.03	Removal of Underdeck Hardware	LS

32. Protection of Concrete.

Supplement standard spec 415.3.15 as follows:

Provide for a minimum of one concrete finisher to remain on the project site after final finishing of all concrete surfaces until such time as the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of imprint, malicious or otherwise. Finisher must actively and continuously patrol on foot the newly placed concrete and repair any damage to the surface that might be sustained as described above.

33. Concrete Pavement Joint Layout 1360-11-70, Item 415.5110.S.01; Concrete Pavement Joint Layout 1360-15-70, Item 415.5110.S.02.

A Description

This special provision describes providing a concrete pavement or concrete base joint layout design for intersections and marking the location of joints in the field

B (Vacant)

C Construction

Plan and locate all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete to prevent uncontrolled cracking. Submit a joint layout design to the engineer at least 7 calendar days before paving each intersection. Do not lay out joints until the engineer has reviewed the joint layout design. Mark the location of concrete joints in the field. Follow the plan details for joints in concrete making adjustments as required to fit field conditions.

D Measurement

The department will measure Concrete Pavement Joint Layout as a single lump sum unit for all joint layout designs and marking, 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
415.5110.S.01	Concrete Pavement Joint Layout 1360-11-70	LS
415.5110.S.02	Concrete Pavement Joint Layout 1360-15-70	LS

Payment is full compensation for providing the intersection joint layout designs and marking all joints in the field.

The department will adjust pay for crack repairs as specified in standard spec 415.5.3.

stp-415-020 (20170615)

34. HMA Percent Within Limits (PWL) Test Strip Volumetrics, Item 460.0105.S; HMA Percent Within Limits (PWL) Test Strip Density Item 460.0110.S.

A Description

This special provision describes the Hot Mix Asphalt (HMA) density and volumetric testing tolerances required for an HMA test strip. An HMA test strip is required for contracts constructed under HMA Percent Within Limits (PWL) QMP. A density test strip is required for each pavement layer placed over a specific, uniform underlying material, unless specified otherwise in the plans. Each contract is restricted to a single mix design per mix type per layer (e.g., upper layer and lower layer may have different mix type specified or may have the same mix type with different mix designs). Each mix design requires a separate test strip. Density and volumetrics testing will be conducted on the same test strip whenever possible.

Perform work according to standard spec 460 and as follows.

B Materials

Use materials conforming to HMA Pavement Percent Within Limits (PWL) QMP special provision.

C Construction

C.1 Test Strip

Submit the test strip start time and date to the department in writing at least 5 calendar days in advance of construction of the test strip. If the contractor fails to begin paving within 2 hours of the submitted start time, the test strip is delayed, and the department will assess the contractor \$2,000 for each instance according to Section E of this document. Alterations to the start time and date must be submitted to the department in writing a minimum of 24 hours prior to the start time. The contractor will not be liable for changes in start time related to adverse weather days as defined by standard spec 101.3 or equipment breakdown verified by the department.

On the first day of production for a test strip, produce approximately 750 tons of HMA. (Note: adjust tonnage to accommodate natural break points in the project.) Locate test strips in a section of the roadway to allow a representative rolling pattern (i.e. not a ramp or shoulder, etc.).

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

Laboratory testing will be conducted from a split sample yielding three components, with portions designated for QC (quality control), QV (quality verification), and retained.

During production for the test strip, obtain sufficient HMA mixture for three-part split samples from trucks prior to departure from the plant. Collect three split samples during the production of test strip material. Perform sampling from the truck box and three-part splitting of HMA according to CMM 8-36. These three samples will be randomly selected by the engineer from each *third* of the test strip tonnage (T), excluding the first 50 tons:

<u>Sample Number</u>	<u>Production Interval (tons)</u>
1	50 to 1/3 T
2	1/3 T to 2/3 T
3	2/3 T to T

C.1.1.2 Density

Required field tests include contractor QC and department QV nuclear density gauge tests and pavement coring at ten individual locations (five in each half of the test strip length) according to Appendix A: *Test Methods and Sampling for HMA PWL QMP Projects*. Both QV and QC teams shall have two nuclear density gauges present for correlation at the time the test strip is constructed. QC and QV teams may wish to scan with additional gauges at the locations detailed in Appendix A, as only gauges used during the test strip correlation phase will be allowed.

C.1.2 Field Tests

C.1.2.1 Density

For contracts that include STSP 460-020 QMP Density in addition to PWL, a gauge comparison according to CMM 8-15.7 shall be completed prior to the day of test strip construction. Daily standardization of gauges on reference blocks and a project reference site shall be performed according to CMM 8-15.8. A standard count shall be performed for each gauge on the material placed for the test strip, prior to any additional data collection. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation according to Appendix A. The two to three readings for the five locations across the mat for each of two zones shall be provided to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset will be used to adjust raw density readings of the specific gauge and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer; therefore, a separate value shall be determined for each layer of each mix placed over a differing underlying material for the contract. This constitutes correlation of that individual gauge for the given layer. Two gauges per team are not required to be onsite daily after completion of the test strip. Any data collected without a correlated gauge will not be accepted.

The contractor is responsible for coring the pavement from the footprint of the density tests and filling core holes according to Appendix A. Coring and filling of pavement core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Testing of cores shall be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following laboratory testing and will be responsible for any verification testing at the discretion of the engineer.

The target maximum density to be used in determining core density is the average of the three volumetric/mix Gmm values from the test strip multiplied by 62.24 lb/ft³. In the event mix and density portions of the test strip procedure are separated, or if an additional density test strip is required, the mix portion must be conducted prior to density determination. The target maximum density to determine core densities shall then be the Gmm four-test running average (or three-test average from a PWL volumetric-only test strip) from the end of the previous day's production multiplied by 62.24 lb/ft³. If no PWL production volumetric test is to be taken in a density-only test strip, a non-random three-part split mix sample will be taken and tested for Gmm by the department representative. The department Gmm test results from this non-random test will be entered in the HMA PWL Test Strip Spreadsheet and must conform to the Acceptance Limits presented in C.2.1.

Exclusions such as shoulders and appurtenances shall be tested and reported according to CMM 8-15. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. However, unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 8-15.11.

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

Obtain random samples according to C.1.1.1 and Appendix A. Perform tests the same day as taking the sample.

Theoretical maximum specific gravities of each mixture sample will be obtained according to AASHTO T 209 as modified in CMM 8-36.6.6. Bulk specific gravities of both gyratory compacted samples and field cores shall be determined according to AASHTO T 166 as modified in CMM 8-36.6.5. The bulk specific gravity values determined from field cores shall be used to calculate a correction factor (i.e., offset) for each QC and QV nuclear density gauge. The correction factor will be used throughout the remainder of the layer.

C.2 Acceptance

C.2.1 Volumetrics

Produce mix conforming to the following limits based on individual QC and QV test results (tolerances based on most recent JMF):

ITEM	ACCEPTANCE LIMITS
Percent passing given sieve:	
37.5-mm	+/- 8.0
25.0-mm	+/- 8.0
19.0-mm	+/- 7.5
12.5-mm	+/- 7.5
9.5-mm	+/- 7.5
2.36-mm	+/- 7.0
75-µm	+/- 3.0
Asphaltic content in percent ^[1]	- 0.5
Air Voids	-1.5 & +2.0
VMA in percent ^[2]	- 1.0
Maximum specific gravity	+/- 0.024

^[1] Asphalt content more than -0.5% below the JMF will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1.

^[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in [table 460-1](#).

QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

Calculation of air voids shall use either the QC, QV, or retained split sample test results, as identified by conducting the paired t-test with the WisDOT PWL Test Strip Spreadsheet.

If QC and QV test results do not correlate as determined by the split sample comparison, the retained split sample will be tested by the department's AASHTO accredited laboratory and HTCP certified personnel as a referee test. Additional investigation shall be conducted to identify the source of the difference between QC and QV data. Referee data will be used to determine material conformance and pay.

C.2.2 Density

Compact all layers of test strip HMA mixture to the applicable density shown in the following table:

TABLE 460-3 MINIMUM REQUIRED DENSITY^[1]

LAYER	MIXTURE TYPE	
	LT and MT	HT
LOWER	93.0 ^[2]	93.0 ^[3]
UPPER	93.0	93.0

^[1] If any individual core density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer will investigate the acceptability of that material per CMM 8-15.11.

^[2] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

^[3] Minimum reduced by 1.0 percent for lower layer constructed directly on crushed aggregate or recycled base courses.

Nuclear density gauges are acceptable for use on the project only if correlation is completed for that gauge during the time of the test strip and the department issues documentation of acceptance stating the correlation offset value specific to the gauge and mix design. The offset is not to be entered into any nuclear density gauge as it will be applied by the department-furnished Field Density Worksheet.

C.2.3 Test Strip Approval and Material Conformance

All applicable laboratory and field testing associated with a test strip shall be completed prior to any additional mainline placement of the mix. All test reports shall be submitted to the department upon completion and approved before paving resumes. The department will notify the contractor within 24 hours from start of test strip regarding approval to proceed with paving, unless an alternate time frame is agreed upon in writing with the department. The 24-hour approval time includes only working days as defined in standard spec 101.3.

The department will evaluate material conformance and make pay adjustments based on the PWL value of air voids and density for the test strip. The QC core densities and QC and QV mix results will be used to determine the PWL values as calculated according to Appendix A.

The PWL values for air voids and density shall be calculated after determining core densities. An approved test strip is defined as the individual PWL values for air voids and density both being equal to or greater than 75, mixture volumetric properties conforming to the limits specified in C.2.1, and an acceptable gauge-to-core correlation. Further clarification on PWL test strip approval and appropriate post-test strip actions are shown in the following table:

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

PWL VALUE FOR AIR VOIDS AND DENSITY	TEST STRIP APPROVAL	MATERIAL CONFORMANCE	POST-TEST STRIP ACTION
Both PWL \geq 75	Approved ¹	Material paid for according to Section E	Proceed with Production
50 \leq Either PWL < 75	Not Approved	Material paid for according to Section E	Consult BTS to determine need for additional test strip
Either PWL < 50	Not Approved	Unacceptable material removed and replaced or paid for at 50% of the contract unit price according to Section E	Construct additional Volumetrics or Density test strip as necessary

¹ In addition to these PWL criteria, mixture volumetric properties must conform to the limits specified in C.2.1, split sample comparison must have a passing result and an acceptable gauge-to-core correlation must be completed.

A maximum of two test strips will be allowed to remain in place per pavement layer per contract. If material is removed, a new test strip shall replace the previous one at no additional cost to the department. If the contractor changes the mix design for a given mix type during a contract, no additional compensation will be paid by the department for the required additional test strip and the department will assess the contractor \$2,000 for the additional test strip according to Section E of this special provision. For simultaneously conducted density and volumetric test strip components, the following must be achieved:

- i. Passing/Resolution of Split Sample Comparison
- ii. Volumetrics/mix PWL value ≥ 75
- iii. Density PWL value ≥ 75
- iv. Acceptable correlation

If not conducted simultaneously, the mix portion of a test strip must accomplish (i) and (ii), while density must accomplish (iii) and (iv). If any applicable criteria are not achieved for a given test strip, the engineer, with authorization from the department's Bureau of Technical Services, will direct an additional test strip (or alternate plan approved by the department) be conducted to prove the criteria can be met prior to additional paving of that mix. For a density-only test strip, determination of mix conformance will be according to main production, i.e., HMA Pavement Percent Within Limits (PWL) QMP special provision.

D Measurement

The department will measure HMA Percent Within Limits (PWL) Test Strip as each unit of work, acceptably completed as passing the required air void, VMA, asphalt content, gradation, and density correlation for a Test Strip. Material quantities shall be determined according to standard spec 450.4 and detailed here within.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH
460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH

These items are intended to compensate the contractor for the construction of the test strip for contracts paved under the HMA Pavement Percent Within Limits QMP article.

Payment for HMA Percent Within Limits (PWL) Test Strip Volumetrics is full compensation for volumetric sampling, splitting, and testing, for proper labeling, handling, and retention of split samples.

Payment for HMA Percent Within Limits (PWL) Test Strip Density is full compensation for collecting and measuring of pavement cores, acceptably filling core holes, providing of nuclear gauges and operator(s), and all other work associated with completion of a core-to-gauge correlation, as directed by the engineer.

Acceptable HMA mixture placed on the project as part of a volumetric or density test strip will be compensated by the appropriate HMA Pavement bid item with any applicable pay adjustments. If a test strip is delayed as defined in C.1 of this document, the department will assess the contractor \$2,000 for each instance, under the HMA Delayed Test Strip administrative item. If an additional test strip is required because the initial test strip is not approved by the department or the mix design is changed by the contractor, the department will assess the contractor \$2,000 for each additional test strip (i.e. \$2,000 for each individual volumetrics or density test strip) under the HMA Additional Test Strip administrative item.

Pay adjustment will be calculated using 65 dollars per ton of HMA pavement. The department will pay for measured quantities of mix based on \$65/ton multiplied by the following pay adjustment:

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

<i>PERCENT WITHIN LIMITS (PWL)</i>	<i>PAYMENT FACTOR, PF (percent of \$65/ton)</i>
≥ 90 to 100	$PF = ((PWL - 90) * 0.4) + 100$
≥ 50 to < 90	$(PWL * 0.5) + 55$
<50	50% ^[1]

where, PF is calculated per air voids and density, denoted PF_{air voids} and PF_{density}

^[1] Material resulting in PWL value less than 50 shall be removed and replaced, unless the engineer allows for such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density will be according to Table 460-3 as modified herein. Pay adjustment will be determined for an acceptably completed test strip and will be computed as shown in the following equation:

$$\text{Pay Adjustment} = (\text{PF} - 100) / 100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

*Note: If Pay Factor <50, the contract unit price will be used in lieu of \$65/ton

The following weighted percentage (WP) values will be used for the corresponding parameter:

<u>Parameter</u>	<u>WP</u>
Air Voids	0.5
Density	0.5

Individual Pay Factors for each air voids (PF_{air voids}) and density (PF_{density}) will be determined. PF_{air voids} will be multiplied by the total tonnage produced (i.e., from truck tickets), and PF_{density} will be multiplied by the calculated tonnage used to pave the mainline only (i.e., traffic lane excluding shoulder) as determined according to Appendix A.

The department will pay incentive for air voids under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0055.01	Incentive Density PWL HMA Pavement	DOL
SPV.0055.02	Incentive Air Voids HMA Pavement	DOL

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

stp-460-040 (20191121)

35. Removing Bearings, B-40-280, Item 506.7050.S.01; Removing Bearings, B-40-281, Item 506.7050.S.02.

A Description

This special provision describes raising the girders and removing the existing bearings, as the plans show.

B (Vacant)

C Construction

Raise the structure's girders and remove the existing bearings as the plans show.

Obtain prior approval from the engineer for the method of jacking the girders and of supporting them as required.

D Measurement

The department will measure Removing Bearings (Structure) 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-40-280	EACH
506.7050.S.02	Removing Bearings, B-40-281	EACH

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

Cost of furnishing and installing the bearings will be paid for under separate bid items.

stp-506-035 (20130615)

36. Sawing Pavement Deck Preparation Areas, Item 509.0310.S.

A Description

This special provision describes sawing around deteriorated areas requiring deck repairs under the Preparation Decks bid items on decks receiving asphalt or polymer overlays and for deck repairs that will not receive an overlay.

B (Vacant)

C Construction

The department will sound and mark areas of deteriorated concrete that require deck preparation. The engineer may identify and mark additional areas as the work is being performed.

Wet cut a minimum of 1 inch deep and at least 2 inches outside of the marked areas. Bound each marked area by providing cuts aligned parallel and perpendicular to the deck centerline.

Remove sawing sludge after completing each area. Do not allow sludge or resulting residue to enter a live lane of traffic, storm sewer, stream, lake, reservoir, marsh, or wetland. Dispose of sludge at an acceptable material disposal site located off the project limits or, if the engineer allows, within the project limits.

D Measurement

The department will measure Sawing Pavement Deck Preparation Areas by the linear foot, acceptably completed, measured as the total linear feet of bounding cuts.

The department will not measure for payment over-cuts or cuts made beyond what is required to bound engineer-marked deterioration limits.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.0310.S	Sawing Pavement Deck Preparation Areas	LF

Payment is full compensation for making all saw cuts and for debris disposal.

stp-509-070 (20180628)

37. Concrete Masonry Deck Repair, Item 509.2100.S.

A Description

This special provision describes providing concrete masonry on the sawed deck preparation areas of the concrete bridge deck and in full depth deck, curb, and joint repair areas. Conform to standard spec 502 and standard spec 509.

B Materials

B.1 Neat Cement

Furnish a neat cement bonding grout. Mix the neat cement in a water-cement ratio approximately equal to 5 gallons of water per 94 pounds of cement.

B.2 Concrete

Furnish grade C, C-FA, C-S, C-IS, C-IP, C-IT, or E concrete conforming to standard spec 501 for deck preparation, full-depth deck repair, curb repair and joint repair areas except as follows:

1. The contractor may increase slump of grade E concrete to 3 inches.
2. The contractor may use ready-mixed concrete.

Provide QMP for class II ancillary concrete as specified in standard spec 716.

C Construction

C.1 Neat Cement

Immediately before placing the concrete deck patching, coat the prepared surfaces with a neat cement mixture. Ensure the prepared concrete surfaces are moist without any standing water before coating with the neat cement mixture. Brush the neat cement mixture over the prepared concrete surfaces to ensure that all parts receive an even coating, and do not allow excess neat cement to collect in pockets. Apply the neat cement at a rate that ensures the cement does not dry out before being covered with the new concrete.

C.2 Placing Concrete

Place concrete conforming to standard spec 509. As determined by the engineer, consolidate smaller areas by internal vibration, strike them off, and finish the areas with hand floats to produce plane surfaces that conform to the grade and elevation of the adjoining surfaces. Give all deck patching areas a final hand float finish.

C.3 Curing Concrete

Cure the concrete masonry deck patching conforming to standard spec 502.2.6(1).

D Measurement

The department will measure the Concrete Masonry Deck Repair bid item by the cubic yard, acceptably completed.

The department will measure concrete used in deck preparation areas and in full depth deck, curb, and joint repair as part of the Concrete Masonry Deck Repair bid item.

The department will not measure wasted concrete.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.2100.S	Concrete Masonry Deck Repair	CY

Payment is full compensation for furnishing, hauling, preparing, placing, finishing, curing, and protecting all materials.

stp-509-060 (20191121)

38. Polymer Overlay, Item 509.5100.S.

A Description

This special provision describes providing two layers of a two-component polymer overlay system to the bridge decks the plans show.

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

Furnish a polymer resin base and hardener composed of two-component, 100 percent solids, 100 percent reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time ^[1]	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity ^[1]	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness ^[2]	60-75	ASTM D2240
Absorption ^[2]	1% maximum at 24 hr	ASTM D570
Tensile Elongation ^[2]	30% - 70% @ 7 days	ASTM D638
Tensile Strength ^[2]	2000 to 5000 psi @ 7 days	ASTM D638
Chloride Permeability ^[2]	<100 coulombs @ 28 days	AASHTO T277

^[1] Uncured, mixed polymer binder

^[2] Cured, mixed polymer binder

Ensure that the polymer resin when mixed with aggregate has the following properties:

Property	Requirement ^[1]	Test Method
Minimum Compressive Strength	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C579 Method B, Modified ^[2]
Thermal Compatibility	No Delaminations	ASTM C884
Minimum Pull-off Strength	250 psi @ 24 hrs	ASTM C1583

^[1] Based on samples cured or aged and tested at 75°F

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

B.3 Aggregates

Furnish natural or synthetic aggregate that is non-polishing; clean; free of surface moisture; fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and conform to the following:

Aggregate Properties

Property	Requirement	Test Method
Moisture Content ^[1]	1/2 of the measured aggregate absorption, %	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 D5821
Absorption	≤1%	ASTM C128

^[1] Sampled and tested by the department before placement.

Gradation

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

B.4 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days before application, submit product data sheets and specifications from the manufacturer, and a certified report of test or analysis from an independent laboratory to the engineer for approval. The department will sample and test the aggregates for gradation and moisture content before placement. If requested, supply the department with samples of the polymer for the purpose of acceptance testing.

B.4.1 Product Data Sheets and Specifications

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.

B.4.2 Certified Report of Test or Analysis

Conform to the following:

Polymer Binder: Submit a certified report of test or analysis from an independent laboratory dated less than 3 years before the date of the project letting showing the polymer binder meets the requirements of section B.2.

Aggregates: Submit a certified report of test or analysis from an independent laboratory dated less than 6 months before the date of the project letting showing the aggregates meet the requirements of section B.3.

C Construction

C.1 General

Ensure that the overlay system is 1/4 inch thick or thicker.

Conform to the following:

Field Review: Conduct a field review of the existing deck to identify any possible surface preparation and material compatibility issues.

Pre-Installation Meeting: Conduct a pre-installation meeting with the manufacturer's representative and the engineer before construction. Discuss the field review findings, verification testing of the surface preparation and 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. Supply for the engineer's use for the duration of the project, a Concrete Surface Profile (CSP) chip set of 10 from the International Concrete Repair Institute (ICRI).

Manufacturer's Representative: An experienced 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. This requirement may be reduced at the engineer's discretion.

Material Storage: Store and handle materials according to the manufacturer's recommendations. Store resin materials in their original containers in a dry area. 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 remove and repair the concrete deck will be paid for under other items.

Use deck patching products that are compatible with the overlay system. Patching materials with magnesium phosphate shall not be used. Place patches after surface is prepared via shot blasting and cleaning as described in Section C.2.2 of this specification. Portland cement concrete patches shall be used for joint repairs and full depth deck repairs with a plan area larger than 4 sf, unless approved otherwise by the Structures Design Section. If rapid-set concrete is used, place patches per the manufacturer's recommendation. If Portland cement concrete is used, place patches per standard spec 509.3.9.1.

Deck patching shall be filled and properly finished prior to overlay placement. Do not place overlay less than 1 hour, or per the manufacturer's recommendation, after placing rapid-set concrete patches in the repair areas. Do not place overlay less than 28 days after placing Portland cement concrete patches in the repair areas.

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 profile meeting CSP 5 (medium-heavy shotblast) according to the ICRI Technical Guideline No. 310.2. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ASTM C1593. 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 1/4 inches or more is greater than 50 percent 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 before the application of the overlay system.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Before shot blasting, remove pavement markings within the treatment area using an approved mechanical or blasting method.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 (free of contaminants, dust, and loose concrete) by sand blasting, using wire wheels, or other approved method.

Just before overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces 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. If prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (brush/breeze blast) the exposed surfaces.

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

C.2.3 Transitional Area

If the plans show, create a transitional area approaching transverse expansion joints and ends of the deck using an approved mechanical or blasting method. Remove 1/4 inch to 5/16 inch of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

If the plans show, create a transitional area on the approach pavement. Prep and place the first lift 3 feet beyond the end of the deck the same width as the deck. Prep and place the second lift 6 feet beyond the end of the deck the same width as the deck.

C.3 Overlay Application

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:

1. Ambient air temperature is below 50 F or above 100 F.
2. Deck temperature is below 50 F.
3. Moisture content in the deck exceeds 4.5 percent when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured according to ASTM D4263.
4. Rain is forecasted during the minimum curing periods listed under C.5.
5. Materials component temperatures below 65 F or above 99 F.
6. Concrete deck age is less than 28 days.
7. The deck temperature exceeds 100 F.
8. If the gel time is 10 minutes or less at the predicted high air temperature for the day.

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. Provide appropriate protective measures to prevent contamination from equipment allowed on the deck during preparation and application operations. 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 method that provides a uniform, consistent coverage of aggregate and minimizes aggregate rolling or bouncing into final position. 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 equipment or 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. Before applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Before opening to traffic, clean expansion joints and joint seals of all debris and polymer. 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 according to the manufacturer's instructions, but not less than the following rate of application.

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

^[1] The minimum total applications rate is 7.5 GAL/100 SF.

^[2] 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 degrees F							
Course	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-99
1	6 hrs.	5 hrs.	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2	8 hrs.	6.5 hrs.	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

If faster cure times are desired and achievable, submit to the engineer a certified test report from an independent laboratory showing the material is able to reach a compressive strength of 1000 psi as tested per ASTM C 579 Method B within the temperature ranges and cure times for which the product is proposed to be placed. Establish ambient air, material, and substrate temperatures from the manufacturer for field applications. Field applications will not be allowed below the documented temperatures.

C.6 Repair of Polymer Overlay

Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or other approved methods; shot blast or sand blast and air blast the concrete before placement of polymer overlay; and place the polymer overlay according to section C.3.

D Measurement

The department will measure Polymer Overlay 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 creating the transitional area; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials.

The department will pay separately for deck repairs.

stp-509-030 (20200629)

39. Epoxy Injection Crack Repair, Item 509.9025.S; Cored Holes 2-Inch Diameter, Item 509.9026.S.

A Description

This special provision describes repairing structural cracks in piers using the epoxy injection method, and coring 2 inch diameter core samples the repaired cracks.

Conform to standard spec 509 as modified in this special provision.

B Materials

Furnish epoxy injection material that is insensitive to the presence of water and is composed of a two-component epoxy resin designed specifically for structurally re-bonding cracks in Portland cement concrete. The epoxy injection material shall conform to the following physical properties at 77 degrees F:

	Unmixed		Mixed
	Component A (Resin)	Component B (Catalyst)	
Weight per gallon, lbs	9.15 ±0.1	8.2 ±0.1	9.15 ±0.1
Viscosity, cps	500-700	120-160	275-350
Specific Gravity, g/cc	1.128 ±0.012	0.984 ±0.012	1.099 ±0.012
Color Straw	Straw	Straw	Straw
Shelf Life (closed containers)	2 years	2 years	---
Solids by Weight	---	---	100%
Pot Life (200 gram mass)	---	---	12-15 mins.
Mixing Ratio (by weight)	80%	20%	---
Mixing Ratio (by volume)	78%	22%	---
Bond Strength	---	---	2000 psi min
Shrinkage Resistance	---	---	ASTM C883
Thermal Compatibility	---	---	ASTM C884

Furnish surface seal material for confining the injected epoxy resin in the cracks that meets the following requirements:

1. Adequate strength to hold the injection fittings firmly in place to resist injection pressures and prevent leakage during injection.
2. Non-sag consistency.
3. Insensitive to the presence of water.
4. Controlled cure time.
5. Two-component epoxy resin.

6. 100% solids by weight.
7. Applicable to wet surfaces.
8. Viscosity should be paste.

C Construction

C.1 Injection Equipment

Use equipment to meter and mix the two-epoxy resin components and to inject the mixture into the cracks. The equipment shall be portable and have positive displacement type pumps equipped with an interlock to provide positive ratio control of exact proportions of the two components at the nozzle. Use electric or air powered pumps that provide in-line metering and mixing.

Use injection equipment that has automatic pressure control capable of discharging the mixture at any present pressure up to 160 psi (± 5 psi) and is equipped with a manual pressure control override.

The equipment shall have the capability of maintaining the volume ratio for the mixture prescribed by the manufacturer of the epoxy resin material within a tolerance of $\pm 5\%$ by volume at any discharge pressure up to 160 psi.

The injection equipment shall be equipped with sensors on both the Component A and B reservoirs that will automatically stop the machine when only one component is being pumped to the mixing head.

C.2 Surface Area Preparation

Clean the surface areas adjacent to cracks of all dirt, dust, grease, oil, efflorescence, or other foreign matter, which may be detrimental to adhesion of the surface seal material. Acids and corrosives will not be permitted for cleaning.

Install injection ports along the cracks on both faces of the pier at intervals of 4 to 10 inches, or as appropriate to accomplish full penetration of the injection resin. Center the injection ports over the cracks and secure in place using surface seal material. Where possible, install the injection ports over the widest areas of the cracks.

Apply the surface seal material to the face of the crack between the entry ports. For known through cracks, apply the surface seal material to both faces of the member. Before proceeding with the injection operation, allow sufficient time to elapse for the surface seal material to gain adequate strength.

C.3 Epoxy Injection

Install the epoxy injection resin according to the manufacturer's instructions.

During installation, in general, limit pressures to 35 psi at the point of entry into the crack.

On vertical cracks, start the injection at the lowest point and continue upward along the crack. While injecting, resin should flow to and out of the next higher port. When this flow is established, cap the lower port and continue the injection until all ports have been injected and flow has been established between them.

On horizontal cracks, follow the same procedures used for vertical cracks; start the injection at one end and continue the injection in succession along the crack until all ports have been injected and flow has been established between them.

C.4 Finishing and Clean-Up

When cracks are completely filled, cure the epoxy resin for a sufficient length of time so that when the surface seal is removed, there is no draining or runback of the epoxy material from the cracks. Grind, or use other appropriate method, to remove surface seal material, excess epoxy material, and injection ports. No epoxy material shall extend beyond the plane of the surfaces of the in-situ concrete.

C.5 Core Sampling

To determine if the crack injection is complete, obtain two 2 inch diameter core samples from the repaired pier. Take the cores to the depth of the element or at least 12 inches. Take the cores at locations selected by the engineer. The engineer will have the option of increasing or decreasing the number of cores taken.

The injection shall be considered complete if more than 90% of the crack void, to 12 inches deep, is filled with the epoxy resin in each of the samples taken. If the injection is incomplete, re-injection and additional cores may be required.

Repair the core holes left in the member using one of the two following methods:

1. Fill core holes with an epoxy mortar consisting of one part epoxy injection resin to four parts clean, dry, bagged fine aggregate mixed by volume. Match the finish repair to the surrounding surface.
2. Fill core holes with an epoxy mortar consisting of one part epoxy gel to one part clean, dry, bagged fine aggregate mixed by volume. Match the finish repair to the surrounding surface.

D Measurement

The department will measure Epoxy Injection Crack Repair in length by the linear foot crack, acceptably repaired.

The department will measure Cored Holes 2-Inch Diameter as each individual cored hole, as approved by the engineer and acceptably completed. Additional cores taken as required by the engineer after re-injection (due to incomplete injection) will not be measured for payment. Additional cores taken by the contractor that are not ordered by the engineer will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9025.S	Epoxy Injection Crack Repair	LF
509.9026.S	Cored Holes 2-Inch Diameter	EACH

Payment is full compensation for furnishing and placing the epoxy sealant, including any cleaning before and after injection; coring samples of the work; inspecting the core samples; and for repairing the core holes left in the member.

stp-509-025 (20100709)

40. Preparation and Coating of Top Flanges B-40-280, Item 517.0900.S.01; Preparation and Coating of Top Flanges B-40-281, Item 517.0900.S.02.

A Description

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

B (Vacant)

C Construction

For top flanges and edges that have no paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean the top surface and edges of the top flanges and paint them with one coat of an approved zinc rich primer. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

For top flanges and edges that have paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean all areas of rust and loose paint on the top surface and edges of the top flanges. Wash the top surface and edges of the top flanges and paint them with one coat of an approved zinc-rich primer according to paint manufacture's recommendations. If flash rusting occurs before the application of the primer, stop painting application, remove the flash rusting and paint cleaned surface. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

Where plans call for the cleaning of other painted structural steel including hanger assemblies, bearings, field splices, and connections, clean areas of loose paint and rust according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, or and according to paint manufacture's cleaning recommendations. Sound paint need not be removed with the exception of an area 12 inch on either side of hanger assembly centerlines. Clean this area to base metal according to the paint manufacture's cleaning recommendations and paint them one coat of an approved zinc-rich primer according to paint manufacture's recommendations. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

For areas of exposed steel members that are to be imbedded in new concrete and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, thoroughly clean the surface area of exposed steel members that are to be imbedded in the new concrete and solvent wash and paint one coat of an approved zinc rich primer according to paint manufacture's recommendations to these areas. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.0900.S.01	Preparation and Coating of Top Flanges B-40-280	LS
517.0900.S.02	Preparation and Coating of Top Flanges B-40-281	LS

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

stp-517-010 (20140630)

- 41. Structure Repainting Recycled Abrasive B-40-278, Item 517.1800.S.01;
Structure Repainting Recycled Abrasive B-40-279, Item 517.1800.S.02;
Structure Repainting Recycled Abrasive B-40-280, Item 517.1800.S.03;
Structure Repainting Recycled Abrasive B-40-281, Item 517.1800.S.04;
Structure Repainting Recycled Abrasive B-40-280, Item 517.1800.S.05;
Structure Repainting Recycled Abrasive B-40-281, Item 517.1800.S.06.**

A Description

This special provision describes surface preparation and painting of the metal surfaces according to the manufacturer's recommendations as modified in this special provision.

A.1 Areas to be Cleaned and Painted

All structural metal surfaces of:

1. Structure B-40-278 992 SF
2. Structure B-40-279 980 SF
3. Structure B-40-280 570 SF (1360-11-70)
4. Structure B-40-281 570 SF (1360-11-70)
5. Structure B-40-280 10,659 SF (1360-15-70)
6. Structure B-40-281 10,659 SF (1360-15-70)

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 for "Structure Repainting Recycle Abrasive Structure". The color for the finish coating material shall match the color number the plans show according to Federal Standard Number 595. Supply the engineer with the product data sheets for approval 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.

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 and all coats to the engineer for approval before any application of paint.

C Construction

C.1 Surface Preparation

Before blast cleaning, solvent clean all surfaces to be coated according to SSPC-SP1.

All metal surfaces must be blast cleaned according to SSPC-SP10 and verified before painting.

Upon completion of surface preparation, test representative surfaces, which were previously rusted (i.e. pitted steel) for the presence of residual chloride. Perform Surface Contamination Tests (SCAT) according to the manufacturer's recommendations. The tests must be witnessed by the engineer. If chlorides are detected at levels greater than $7\mu\text{g}/\text{cm}^2$, continue to clean the affected areas until results are below the specified limit. Submit anticipated testing frequencies and chloride remediation methods to the engineer for review and approval.

Apply the prime coat the same day that the metal surfaces receive the No. 10 blast or re-blast before application. Cleaned surfaces shall be of the specified condition immediately before paint application. If rust bloom occurs before applying the primer, stop the painting operation in the area of the rust bloom and re-blast and clean the area to SSPC SP-10 before applying the primer.

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 according to ISO 8503-5.

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 as per SSPC AB-2.

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 test cleanliness according to ASTM D4285. 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 according to this specification.

C.2 Coating Application

Apply paint according to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray or inaccessible areas by brush, roller or other methods approved by the engineer.

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

Mix the paint or coatings according to the manufacturer's directions to a smooth lump-free consistency. Keep paint thoroughly mixed during the painting application.

After the inspector approves the entire cleaned surface to be coated, apply a prime coat uniformly to the entire surface. Either before or after applying the prime coat, brush or spray a stripe coat of primer on all plate edges, bolt heads, nuts, and washers. Apply succeeding coats as the product data sheet shows.

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 according to SSPC PA1.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin according 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%. The manufacturer's ambient condition requirements must be followed if they are more stringent.

Paint thickness shall be within the requirements for a three coat paint system listed in the department's approved list for Structure Repainting Recycle Abrasive Structure and the paint system being used.

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 according 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 (Structures) as a single complete lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1800.S.01	Structure Repainting Recycled Abrasive B-40-278	LS
517.1800.S.02	Structure Repainting Recycled Abrasive B-40-279	LS
517.1800.S.03	Structure Repainting Recycled Abrasive B-40-280	LS
517.1800.S.04	Structure Repainting Recycled Abrasive B-40-281	LS
517.1800.S.05	Structure Repainting Recycled Abrasive B-40-280	LS
517.1800.S.06	Structure Repainting Recycled Abrasive B-40-281	LS

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

stp-517-050 (20190618)

42. Labeling and Disposal of Waste Material.

The EPA ID number for Structure B-40-278 is WIR000176016.

The EPA ID number for Structure B-40-279 is WIR000176016.

The EPA ID number for Structure B-40-280 is WIR000176008.

The EPA ID number for Structure B-40-281 is WIR000176008.

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.

Contact the waste management contractor a minimum of 10 working days in advance to request container drop-off or pickup. Provide the waste management contractor with the project ID, structure number, EPA ID, and the agreed-upon location for container staging. Contact information for the waste management contractor is located on the WisDOT Internet site at

<https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrcs/environment/hazwaste-contacts.pdf>

Report all reportable spills and discharges according 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.

stp-517-055 (20190618)

HAZARDOUS WASTE

WW-5257580999-001-01-0

STORAGE LABEL

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.

43. **Negative Pressure Containment and Collection of Waste Materials, B-40-278, Item 517.4500.S.01;**
Negative Pressure Containment and Collection of Waste Materials, B-40-279, Item 517.4500.S.02;
Negative Pressure Containment and Collection of Waste Materials, B-40-280, Item 517.4500.S.03;
Negative Pressure Containment and Collection of Waste Materials, B-40-281, Item 517.4500.S.04;
Negative Pressure Containment and Collection of Waste Materials, B-40-280, Item 517.4500.S.05;
Negative Pressure Containment and Collection of Waste Materials, B-40-281, Item 517.4500.S.06.

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 labeling and storing waste material in approved hazardous waste containers.

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 unless covered by approved containment materials. 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. 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 plywood, or of a combination of flexible and rigid materials and meet SSPC Guide 6 requirements with Level 1 emissions. Systems manufactured and provided by Eagle Industries, Detroit Tarps, or equal, are preferred. The tarpaulins shall be a non-permeable material, either as part of the tarp system or have a separate non-permeable 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 covered work platform or covered 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 before 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.

After all debris has been removed and all painting has been approved in the containment area is complete, remove containment according to SSPC Guide 6.

As a safety factor for structures over water, provide for scum control. Provide a plan for corrective measures to mitigate scum forming and list the procedures, labor and equipment needed to assure compliance. 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.

D Measurement

The department will measure Negative Pressure Containment and Collection of Waste Materials (Structure) as a single complete lump sum unit of work for each structure designated in the contract, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.4500.S.01	Negative Pressure Containment and Collection of Waste Materials B-40-278	LS
517.4500.S.02	Negative Pressure Containment and Collection of Waste Materials B-40-279	LS
517.4500.S.03	Negative Pressure Containment and Collection of Waste Materials B-40-280	LS
517.4500.S.04	Negative Pressure Containment and Collection of Waste Materials B-40-281	LS
517.4500.S.05	Negative Pressure Containment and Collection of Waste Materials B-40-280	LS
517.4500.S.06	Negative Pressure Containment and Collection of Waste Materials B-40-281	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.

stp-517-065 (20140630)

44. 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.

B Materials

Supply and operate all equipment according to OSHA.

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 each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.6001.S	Portable Decontamination Facility	EACH

Payment is full compensation for furnishing and maintaining a portable decontamination facility.

stp-517-060 (20140630)

45. Slope Paving Repair Crushed Aggregate, Item 604.9010.S.

A Description

This special provision describes providing crushed aggregate slope paving where erosion has occurred.

Conform to standard spec 604 as modified in this special provision.

B Materials

Furnish materials conforming to standard spec 604.2.

C Construction

Replace paragraph (1) of standard spec 604.3.2 with the following:

- (1) Place the crushed aggregate on the prepared foundation in areas where erosion has occurred. Shape and consolidate it using mechanical or hand methods to provide a stable, even and uniform surface.

D Measurement

The department will measure Slope Paving Repair Crushed Aggregate by the cubic 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
604.9010.S	Slope Paving Repair Crushed Aggregate	CY

Payment is full compensation for all excavating and backfilling required to prepare the foundation; disposing of surplus materials; providing, handling, placing, and consolidating the crushed aggregate; providing, handling, heating, and for applying the asphaltic material.

stp-604-010 (20100709)

46. Adjusting Manhole Covers, Item 611.8110.

This special provision describes adjusting manhole covers conforming to standard spec 611 as modified in this special provision.

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

Supplement standard spec 611.3.7 with the following:

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

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

stp-611-005 (20200629)

47. Cover Plates Temporary, Item 611.8120.S.

A Description

This special provision describes providing and removing steel plates to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials

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

C (Vacant)

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	EACH

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

The steel plates shall become the property of the contractor when no longer needed in the contract work.

stp-611-006 (20151210)

48. Fence Safety, Item 616.0700.S.

A Description

This special provision describes providing plastic fence at locations the plans show.

B Materials

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

Furnish fence fabric meeting the following requirements.

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

C Construction

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

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

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

D Measurement

The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.

stp-616-030 (20160607)

49. Covering Signs.

Replace standard spec 643.2.3.3(2) with the following:

- (2) Ensure that covers are flat black, blank, and opaque.

Add the following to standard spec 643.3.4.1 as paragraph four:

- (4) If multiple messages on a single sign are required to be covered, minimize the number of holes created by covering the sign with a single rectangular shaped covering. Multiple coverings on a single sign is only permissible where necessary to avoid covering necessary content or as directed by the engineer. Submit sign covering plans to the engineer for single signs requiring multiple coverings 3 days before performing work. Obtain engineer approval before covering signs. Remove sign coverings before placing fixed messages signs unless otherwise directed by the engineer.

sef-643-005 (20180104)

50. Traffic Meetings and Traffic Control Scheduling.

Every Wednesday by 10:00 AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-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 2-month look-ahead closure information into the excel spreadsheet.

Meet with the engineer between 11:00 - 11:30 AM on Wednesdays at the project field office to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-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 with the engineer during the 11:00 AM meeting.

Every Wednesday 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, contractors from adjacent projects (ID 1360-12-70, 107th Street Bridge over STH 145 and ID 1100-17-76, IH 41/USH 45 Good Hope Road to Waukesha County Line), 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 2-week look-ahead closure schedule, as needed. Submit the revised 2-week look-ahead to the engineer.

Obtain approval from the engineer for any mid-week changes to the closure schedule. Revise the 2-week look-ahead as required and obtain engineer approval.

sef-643-040 (20150319)

51. General Requirements for Electrical Work.

Add the following to standard spec 651.3.3 (3):

Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection for state owned traffic signals. The department's Region Electrical personnel will perform the inspection for the state owned and maintained traffic signals.

Requests for signal inspection will include a completed SE Region Traffic Signal Checklist.

52. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality

Add the following to standard spec 106.2:

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items

Microwave Vehicle Detectors

Ethernet Switches

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Transportation of the equipment between the electric shop and the field or interim locations are the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials

Add the following to standard spec 106.3:

Design/Shop Drawings

Before the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.

53. Intelligent Transportation Systems - General Requirements.

A Description

A.1 General

This special provision describes providing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as the plans show.

Unusual aspects of this project include:

1. The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment before installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16 inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. **Electrical Power:**
 - 4.1. **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.
 - 4.2. **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.
 - 4.3. **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:**
 - 5.1. **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.
 - 5.2. **Equipment in Controlled Environments:** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage and clamp the voltage between each wire and ground at 50 volts.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for labeling methods before 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

The department will not measure the work performed under this special provision.

E Payment

The department will pay for the work performed under this special provision under the contract ITS bid items.

stp-670-010 (20100709)

54. Electrical Conduit.

Replace standard spec 652.5(2) with the following:

(2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into an existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

55. Install Conduit Into Existing Item, Item 652.0700.S.

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Use conduit rigid non-metallic schedule 40, conduit of correct size as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard spec.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for the entering conduit(s) at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place. Place 2" PVC pipe cap on both ends with 7,8 ¼" holes drilled in each end.

D Measurement

The department will measure Install Conduit Into Existing Item by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	EACH

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.

56. Signal Housings.

Replace standard spec 658.2(4) with the following:

For pedestrian signal faces: furnish polycarbonate resin housings, doors, and visors. Use yellow, Federal Standard 595 – FS13538, housings and dull black door faces and visors. For 16-inch heads, mount a z-crate visor and gasket to the door with stainless steel tabs. Drill the housing for top and bottom pipe mounting with the ability to rotate 270 degrees on the poly mounting brackets.

57. Pedestrian Push Buttons.

Replace standard spec 658.2(5) with the following:

For pedestrian push buttons: furnish freeze-proof ADA compliant pedestrian push buttons made by a department-approved manufacturer. The contractor shall place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B, directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

58. Signal Mounting Hardware.

Add the following to standard spec 658.2(7):

Use an approved type of pole or standard vertical mounting brackets/clamps for signal faces from an approved manufacturer. Pedestrian traffic signal heads mounted in the median shall use federal yellow aluminum side of pole 2-way upper and lower arm assemblies providing 16 ½-inch center to center spacing.

59. Traffic Signal Faces.

Replace standard spec 658.2(3) with the following:

(3) For traffic signal faces: furnish signal housings, visors, LED modules, backplates, and cut away or tunnel type visors as the plans show. The visors shall be a dull black. The backplates shall be a reflective yellow. Signal head housings shall be black.

Add the following to standard spec 658.3:

(5) Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

60. Pedestrian Signal Face 16-Inch.

Add the following to standard spec 658.3:

(5) Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

**61. HMA Pavement Percent Within Limits (PWL) QMP, Core Pilot Project;
Incentive Density PWL HMA Pavement, Item SPV.0055.01;
Incentive Air Voids HMA Pavement SPV.0055.02.**

A Description

This special provision describes percent within limits (PWL) pay determination, providing and maintaining a contractor Quality Control (QC) Program, department Quality Verification (QV) Program, required sampling and testing, dispute resolution, corrective action, pavement density, and payment for HMA pavements. Pay is determined by statistical analysis performed on contractor and department test results conducted according to the Quality Management Program (QMP) as specified in standard spec 460, except as modified below.

B Materials

Conform to the requirements of standard spec 450, 455, and 460 except where superseded by this special provision. The department will allow only one mix design for each HMA mixture type per layer required for the contract, unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip according to HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics and HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density articles at no additional cost to the department.

Replace standard spec 460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater with the following:

460.2.8.2.1.3.1 Contracts under Percent within Limits

- (1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.
- (2) Obtain random samples and perform tests according to this special provision and further defined in Appendix A: *Test Methods & Sampling for HMA PWL QMP Projects*. Obtain HMA mixture samples from trucks at the plant. For the subplot in which a QV sample is collected, discard the QC sample and test a split of the QV sample.
- (3) Perform sampling from the truck box and three-part splitting of HMA samples according to CMM 8-36. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per subplot. All QC samples shall provide the following: QC, QV, and Retained. The contractor shall take possession and test the QC portions. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. Additional sampling details are found in Appendix A. Label samples according to CMM 8-36. Additional handling instructions for retained samples are found in CMM 8-36.
- (4) Use the test methods identified below to perform the following tests at a frequency greater than or equal to that indicated:
 - Blended aggregate gradations according to AASHTO T 30.
 - Asphalt content (AC) in percent determined by ignition oven method according to AASHTO T 308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1.
 - Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 8-36.6.5.
 - Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 8-36.6.6.
 - Air voids (V_a) by calculation according to AASHTO T 269.
 - Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R35.
- (5) Lot size shall consist of 3750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three subplot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.
- (6) Conduct field tensile strength ratio tests according to AASHTO T283, without freeze-thaw conditioning cycles, on each qualifying mixture according to CMM 8-36.6.14. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5,000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are below the spec limit, notify the engineer. The engineer and contractor will jointly determine a corrective action.

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

(1) Material must conform to the following action and acceptance limits based on individual QC and QV test results (tolerances relative to the JMF used on the PWL Test Strip):

ITEM	ACTION LIMITS	ACCEPTANCE LIMITS
Percent passing given sieve:		
37.5-mm	+/- 8.0	
25.0-mm	+/- 8.0	
19.0-mm	+/- 7.5	
12.5-mm	+/- 7.5	
9.5-mm	+/- 7.5	
2.36-mm	+/- 7.0	
75-µm	+/- 3.0	
AC in percent ^[1]	-0.3	-0.5
Va		- 1.5 & +2.0
VMA in percent ^[2]	- 0.5	-1.0

^[1] The department will not adjust pay based on QC AC in percent test results; however corrective action will be applied to nonconforming material according to 460.2.8.2.1.7(3) as modified herein.

^[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

(2) QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

(3) Notify the engineer if any individual test result falls outside the action limits, investigate the cause and take corrective action to return to within action limits. If two consecutive test results fall outside the action limits, stop production. Production may not resume until approved by the engineer. Additional QV samples may be collected upon resuming production, at the discretion of the engineer.

(4) For any additional tests outside the random number testing conducted for volumetrics, the data collected will not be entered into PWL calculations. Additional QV tests must meet acceptance limits or be subject to production stop and/or remove and replace.

(5) Remove and replace unacceptable material at no additional expense to the department. Unacceptable material is defined as any individual QC or QV tests results outside the acceptance limits or a PWL value < 50. The engineer may allow such material to remain in place with a price reduction. The department will pay for such HMA Pavement allowed to remain in place at 50 percent of the contract unit price.

Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:

460.2.8.3.1.2 Personnel Requirements

(1) The department will provide at least one HTCP-certified Transportation Materials Sampling (TMS) Technician, to observe QV sampling of HMA mixtures.

(2) Under departmental observation, a contractor TMS technician shall collect and split samples.

(3) A department HTCP-certified Hot Mix Asphalt, Technician I, Production Tester (HMA-IPT) technician will ensure that all sampling is performed correctly and conduct testing, analyze test results, and report resulting data.

(4) The department will make an organizational chart available to the contractor before mixture production begins. The organizational chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

Replace standard spec 460.2.8.3.1.4 Department Verification Testing Requirements with the following:

460.2.8.3.1.4 Department Verification Testing Requirements

(1) HTCP-certified department personnel will obtain QV random samples by directly supervising HTCP-certified contractor personnel sampling from trucks at the plant. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per subplot. All QV samples shall furnish the following: QC, QV, and Retained. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. The department will take possession of retained samples accumulated to date each day QV samples are collected. The department will retain samples until surpassing the analysis window of up to 5 lots, as defined in 460.2.8.3.1.7(2) of this special provision. Additional sampling details are found in Appendix A.

(2) The department will verify product quality using the test methods specified here in 460.2.8.3.1.4(3). The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.

(3) The department will perform all testing conforming to the following standards:

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 8-36.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 8-36.6.6.
- Air voids (Va) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
- Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T 308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1.

(4) The department will randomly test each design mixture at the minimum frequency of one test for each lot.

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

(1) Analysis of test data for pay determination will be contingent upon QC and QV test results. Statistical analysis will be conducted on Gmm and Gmb test results for calculation of Va. If either Gmm or Gmb analysis results in non-comparable data as described in 460.2.8.3.1.7(2), subsequent testing will be performed for both parameters as detailed in the following paragraph.

(2) The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. Additional comparisons incorporating the first 3 lots of data will be performed following completion of the 4th and 5th lots (i.e., lots 1-3, 1-4, and 1-5). A rolling window of 5 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-6, then lots 3-7, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025. If the F- and t-tests report comparable data, the QC and QV data sets are determined to be statistically similar and QC data will be used to calculate the Va used in PWL and pay adjustment calculations. If the F- and t-tests result in non-comparable data, proceed to the *dispute resolution* steps found below. Note: if both QC and QV Va PWL result in a pay adjustment of 102% or greater, dispute resolution testing will not be conducted. Dispute resolution via further investigation is as follows:

^[1] The Retained portion of the split from the lot in the analysis window with a QV test result furthest from the QV mean (not necessarily the subplot identifying that variances or means do not compare) will be referee tested by the bureau's AASHTO accredited laboratory and certified personnel. All previous lots within the analysis window are subject to referee testing and regional lab testing as deemed necessary. Referee test results will replace the QV data of the subplot(s).

[2] Statistical analysis will be conducted with referee test results replacing QV results.

- i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.
- ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested by the department's regional lab for the remaining 4 sublots of the lot which the F- and t- tests indicate non-comparable datasets. The department's regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at \$2,000/lot under the HMA Regional Lab Testing administrative item.

[3] The contractor may choose to dispute the regional test results on a lot basis. In this event, the retained portion of each subplot will be referee tested by the department's AASHTO accredited laboratory and certified personnel. The referee Gmm and Gmb test results will supersede the regional lab results for the disputed lot.

- i. If referee testing results in an increased calculated pay factor, the department will pay for the cost of the additional referee testing.
- ii. If referee testing of a disputed lot results in an equal or lower calculated pay factor, the department will assess a pay reduction for the additional referee testing at \$2,000/lot under the Referee Testing administrative item.

(3) The department will notify the contractor of the referee test results within 3 working days after receipt of the samples by the department's AASHTO accredited laboratory. The intent is to provide referee test results within 7 calendar days from completion of the lot.

(4) The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture data, and inspecting the completed pavement according to the standard spec, this special provision, and accompanying Appendix A.

(5) Unacceptable material (i.e., resulting in a PWL value less than 50 or individual QC or QV test results not meeting the Acceptance Requirements of 460.2.8.2.1.7 as modified herein) will be referee tested by the bureau's AASHTO accredited laboratory and certified personnel and those test results used for analysis. Such material may be subject to remove and replace, at the discretion of the engineer. If the engineer allows the material to remain in place, it will be paid at 50% of the HMA Pavement contract unit price. Replacement or pay adjustment will be conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot. Any remove and replace shall be performed at no additional cost to the department. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test will be conducted and under such circumstances will be entered into the HMA PWL Production spreadsheet for data analysis and pay determination.] The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination by Cores

(1) For mainline pavement, PWL density determination will be by cores. Full-width passing lanes, turn lanes, or auxiliary lanes must be 1500 lane feet or greater to be eligible for PWL density determination. Shoulder and appurtenance density will be by nuclear density gauge according to 460.3.3.2.1(5).

(2) Sublots are typically 1500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. A partial quantity less than 750 lane feet will be included with the previous subplot.

(3) A typical lot consists of 5 sublots. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted.

(4) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.

460.3.3.2.2 Density Determination by Cores

- (1) Core the pavement at one random location, determined by the engineer, per subplot. Each core location will represent the entire length and width of the subplot.
- (2) Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next working day not to exceed 48 hours after placement. Prepare cores and determine density according to AASHTO T166 as modified in CMM 8-36.6.5. Dry cores after testing. Fill core holes according to Appendix A and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing.
- (3) If a core is damaged at the time of coring, immediately take a replacement core 1 foot ahead of the existing testing location in the direction of traffic at the same offset as the damaged core. If a core is damaged during transport, record it as damaged and notify the engineer immediately.

Replace standard spec 460.3.3.3 Waiving Density Testing with Acceptance of Density Data with the following:

460.3.3.3 Data Analysis for Density

- (1) The department will determine mixture density conformance and acceptability by analyzing test results, reviewing mixture data, and inspecting the completed pavement according to standard spec, this special provision, and accompanying Appendix A.
- (2) Core data for each lot will be used by the department for PWL and pay adjustment calculation.
- (3) Density resulting in a PWL value less than 50 or not meeting the requirements of 460.3.3.1 (any individual density test result falling more than 3.0 percent below the minimum required target maximum density as specified in standard spec Table 460-3) is unacceptable and may be subject to remove and replace at no additional cost to the department, at the discretion of the engineer.
 - i. Replacement may be conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot.
 - ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material ^{does} not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]
 - iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 8-15.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.
 - iv. Unacceptable material identified by core density will be removed and replaced or paid at 50% of the contract unit price on a subplot basis.

460.3.3.3.1 Analysis of Core Density Data

- (1) As random density locations are paved, the core data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. Each lot will contain core density data from a single HMA mixture type placed over a specific underlying material. Upon the completion of each lot the core data will be used for PWL and pay adjustment calculations.
- (2) The department reserves the right to verify the density of any core and the department's result may be used for PWL and pay adjustment calculations, at the discretion of the engineer.

D Measurement

The department will measure the HMA Pavement bid items acceptably completed by the ton as specified in standard spec 450.4 and as follows in standard spec 460.5 as modified in this special provision.

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

(1) Payment for HMA Pavement Type LT, MT, and HT mixes is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for HMA PWL QMP testing and aggregate source testing; for warm mix asphalt additives or processes; for stabilizer, hydrated lime and liquid antistripping agent, if required; and for all materials including asphaltic materials.

(2) If provided for in the plan quantities, the department will pay for a leveling layer, placed to correct irregularities in an existing paved surface before overlaying, under the pertinent paving bid item. Absent a plan quantity, the department will pay for a leveling layer as extra work.

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

(1) Pay adjustments will be calculated using 65 dollars per ton of HMA pavement. The HMA PWL Production Spreadsheet, including data, will be made available to the contractor by the department as soon as practicable upon completion of each lot. The department will pay for measured quantities of mix based on this price multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

PERCENT WITHIN LIMITS (PWL)	PAYMENT FACTOR, PF (percent of \$65/ton)
≥ 90 to 100	PF = ((PWL – 90) * 0.4) + 100
≥ 50 to < 90	(PWL * 0.5) + 55
<50	50% ^[1]

where PF is calculated per air voids and density, denoted PF_{air voids} & PF_{density}

^[1] Any material resulting in PWL value less than 50 shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density shall be according to standard spec Table 460-3. Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation.

$$\text{Pay Adjustment} = (\text{PF} - 100) / 100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

*Note: If Pay Factor <50, the contract unit price will be used in lieu of \$65/ton

The following weighted percentage (WP) values will be used for the corresponding parameter:

Parameter	WP
Air Voids	0.5
Density	0.5

Individual Pay Factors for each air voids (PF_{air voids}) and density (PF_{density}) will be determined. PF_{air voids} will be multiplied by the total tonnage placed (i.e., from truck tickets), and PF_{density} will be multiplied by the calculated tonnage used to pave the mainline only (i.e., traffic lanes excluding shoulder) as determined according to Appendix A.

The department will pay incentive for air voids and density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0055.01	Incentive Density PWL HMA Pavement	DOL
SPV.0055.02	Incentive Air Voids HMA Pavement	DOL

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

The department will administer a disincentive under the Disincentive HMA Binder Content administrative item for each individual QV test result indicating asphalt binder content below the Action Limit in 460.2.8.2.1.7 presented herein. The department will adjust pay per subplot of mix at 65 dollars per ton of HMA pavement multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

<u>AC Binder</u> <u>Relative to JMF</u>	<u>Pay Adjustment /</u> <u>Sublot</u>
-0.4% to -0.5%	75%
More than -0.5%	50% ^[1]

^[1] Any material resulting in an asphalt binder content more than 0.5% below the JMF AC content shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement. Such material will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to ASTM D8159 as modified in CMM 8-36.6.3.1.

Note: PWL value determination is further detailed in the *Calculations* worksheet of the HMA PWL Production spreadsheet.

62. Appendix A, Core Pilot Project.

Test Methods & Sampling for HMA PWL QMP Projects.

The following procedures are included with the HMA Pavement Percent Within Limits (PWL) Quality Management Program (QMP) special provision:

- WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip
- WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production
- Sampling for WisDOT HMA PWL QMP
- Calculation of PWL Mainline Tonnage Example

WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip

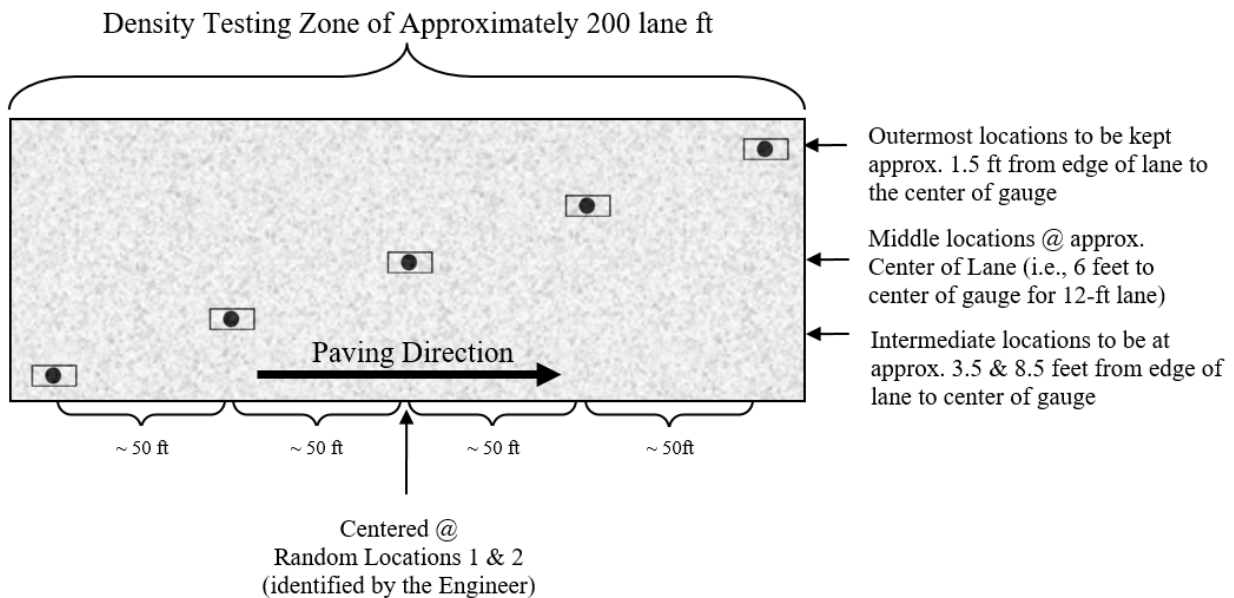



Figure 1: Nuclear/Core Correlation Location Layout

The engineer will identify two zones in which gauge/core correlation is to be performed. These two zones will be randomly selected within each *half* of the test strip length. (Note: Density zones shall not overlap and must have a minimum of 100 feet between the two zones; therefore, random numbers may be shifted (evenly) in order to meet these criteria.) Each zone shall consist of five locations across the mat as identified in Figure 1. The following shall be determined at each of the five locations within both zones:

- two one-minute nuclear density gauge readings for QC team*
- two one-minute nuclear density gauge readings for QV team*
- pavement core sample

*If the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge.

The zones are supposed to be undisclosed to the contractor/roller operators. The engineer will not lay out density/core test sites until rolling is completed and the cold/finish roller is beyond the entirety of the zone. Sites are staggered across the 12-foot travel lane, and do not include shoulders. The outermost locations should be 1.5-feet from the center of the gauge to the edge of lane. [NOTE: This staggered layout is only applicable to the test strip. All mainline density locations after test strip should have a longitudinal- as well as transverse-random number to determine location as detailed in the *WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production* section of this document.]

Individual locations are represented by the  symbol as seen in Figure 1 above. The symbol is two-part, comprised of the nuclear test locations and the location for coring the pavement, as distinguished here:



The nuclear site is the same for QC and QV readings for the test strip, i.e., the QC and QV teams are to take nuclear density gauge readings in the same footprint. Each of the QC and QV teams are to take a minimum of two one-minute readings per nuclear site, with the gauge rotated 180 degrees between readings, as seen here:



Figure 2: Nuclear gauge orientation for (a) 1st one-minute reading and (b) 2nd one-minute reading

Photos should be taken of each of the 10 core/gauge locations of the test strip. This should include gauge readings (pcf) and a labelled core within the gauge footprint. If a third reading is needed, all three readings should be recorded and documented. Only raw readings in pcf should be written on the pavement during the test strip, with a corresponding gauge ID/SN (generalized as QC-1 through QV-2 in the following Figure) in the following format:



Figure 3: Layout of raw gauge readings as recorded on pavement

Each core will then be taken from the center of the gauge footprint and will be used to correlate each gauge with laboratory-measured bulk specific gravities of the pavement cores. One core in good condition must be obtained from each of the 10 locations. If a core is damaged at the time of extracting from the pavement, a replacement core should be taken immediately adjacent to the damaged core, i.e., from the same footprint. If a core is damaged during transport, it should be recorded as damaged and excluded from the correlation. Coring after traffic is on the pavement should be avoided. The contractor is responsible for coring of the pavement. Coring and filling of core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Core density testing will be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following initial testing and is responsible for any verification testing.

Each core 150 mm (6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. The contractor is responsible for thoroughly drying cores obtained from the mat according to ASTM D 7227 prior to using specimens for in-place density determination according to AASHTO T 166 as modified by CMM 8-36.6.5.

Cores must be taken before the pavement is open to traffic. Cores are cut under department/project staff observation. Relabel each core immediately after extruding or ensure that labels applied to pavement prior to cutting remain legible. The layer interface should also be marked immediately following extrusion. Cores should be cut at this interface, using a wet saw, to allow for density measurement of only the most recently placed layer. Cores should be protected from excessive temperatures such as direct sunlight. Also, there should be department custody (both in transport and storage) for the cores until they are tested, whether that be immediately after the test strip or subsequent day if agreed upon between department and contractor. Use of concrete cylinder molds works well to transport cores. Cores should be placed upside down (flat surface to bottom of cylinder mold) in the molds, one core per mold, cylinder molds stored upright, and ideally transported in a cooler. Avoid any stacking of pavement cores.

Fill all core holes with non-shrink rapid-hardening grout, mortar, or concrete, or with HMA. When using grout, mortar, or concrete, remove all water from the core holes prior to filling. Mix the mortar or concrete in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching the same day's production mix type at same day compaction temperature +/- 20 F. The core holes shall be dry and coated with tack before filling, filled with a top layer no thicker than 2.25 inches, lower layers not to exceed 4 inches, and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

WisDOT Test Method for HMA PWL QMP Density Determination for Main Production

For mainline density determination beyond the test strip, typical subplot lengths are 1500 lane feet and lots typically consist of 5 sublots. Partial lots with less than three sublots remaining at the end of the project will be included in the previous lot, by the engineer. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive or disincentive.

Determination by Cores

For mainline density determination by cores, collect one core per subplot. Each core is tested for density according to AASHTO T166 as modified in CMM 8-36.6.5. Each core location is determined by the engineer using random numbers and represents the entire length and width of the subplot. The contractor is responsible for all work related to coring, testing of the cores, and filling of the core holes according to the guidance provided in the *WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip* portion of this document. The engineer must always maintain custody of the cores during collection, transportation and testing. Figure 5 shows an example coring layout for a 12-foot-wide lane.

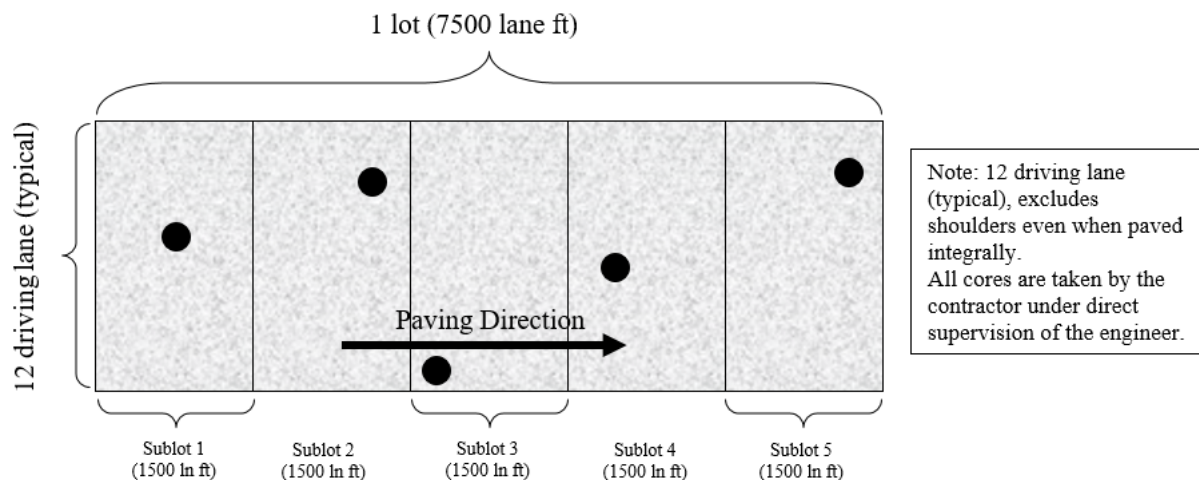


Figure 5: Example core density locations for traffic lanes

Sampling for WisDOT HMA PWL QMP Production

Sampling of HMA mix for QC, QV and Retained samples shall conform to CMM 8-36 except as modified here.

Delete CMM 8-36.4 Sampling Hot Mix Asphalt and replace with the following to update subplot tonnages:

Sampling Hot Mix Asphalt

At the beginning of the contract, the contractor determines the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (subplot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP SPV. A test sample is obtained randomly from each subplot. Each random sample shall be collected at the plant according to CMM 8-36.4.1 and 8-36.4.2. The contractor must submit the random numbers for all mix sampling to the department before production begins.

Example 1

Expected production for a contract is 12,400 tons. The number of required samples is determined based on this expected production (per HMA PWL QMP SPV) and is determined by the random sample calculation.

Sample 1 – from 50 to 750 tons
Sample 2 – from 751 to 1500 tons
Sample 3 – from 1501 to 2250 tons
Sample 4 – from 2251 to 3000 tons
Sample X –
Sample 16 – from 11,251 to 12,000 tons
Sample 17 – from 12,001 to 12,400 tons

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using ASTM Method D-3665 or by using a calculator or computerized spreadsheet that has a random number generator. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the subplot tonnage. This number will then be added to the final tonnage of the previous subplot to yield the approximate cumulative tonnage of when each sample is to be taken.

To allow for plant start-up variability, the procedure calls for the first random sample to be taken at 50 tons or greater per production day (not intended to be taken in the first two truckloads). Random samples calculated for 0-50 ton should be taken in the next truck (51-75 ton).

This procedure is to be used for any number of samples per contract.

If the production is less than the final randomly generated sample tonnage, then the random sample is to be collected from the remaining portion of that subplot of production. If the randomly generated sample is calculated to be within the first 0-50 tons of the subsequent day of production, it should be taken in the next truck. Add a random sample for any fraction of 750 tons at the end of the contract. Lot size will consist of 3750 tons with sublots of 750 tons. Partial lots with less than three subplot tests will be included into the previous lot, by the engineer.

It is intended that the plant operator not be advised ahead of time when samples are to be taken.

If belt samples are used during troubleshooting, the blended aggregate will be obtained when the mixture production tonnage reaches approximately the sample tonnage. For plants with storage silos, this could be up to 60 minutes in advance of the mixture sample that's taken when the required tonnage is shipped from the plant.

QC, QV and retained samples shall be collected for all test strip and production mixture testing using a three-part splitting procedure according to CMM 8-36.5.2.

Calculation of PWL Mainline Tonnage Example

A mill and overlay project is being constructed with a 12-foot traffic lane and an integrally paved 3-foot shoulder. The layer thickness is 2 inches for the full width of paving. Calculate the tonnage in each subplot eligible for density incentive or disincentive.

Solution:

$$\frac{1500 \text{ ft} \times 12 \text{ ft}}{9 \text{ sf/sy}} \times \frac{2 \text{ in} \times 112 \text{ lb/sy/in}}{2000 \text{ lb/ton}} = 224 \text{ tons}$$

63. Traffic Control Close-Open Freeway Service Ramp, Item SPV. 0060.01.

A Description

This special provision describes closing and re-opening a freeway service ramp and associated auxiliary lane.

B (Vacant)

C Construction

Install or reposition traffic control devices required for closing a freeway service ramp and adjacent auxiliary lanes. Remove or return traffic control devices to their previous configuration when the closure is no longer required.

D Measurement

The department will measure Traffic Control Close-Open Freeway Service Ramp by each individual ramp closure and re-opening, 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	Traffic Control Close-Open Freeway Service Ramp	EACH

Payment is full compensation for closing and re-opening a freeway service ramp. Traffic Control devices will be paid separately. Service ramps that need to be closed for full freeway closure will be paid for under the Traffic Control Full Freeway Closure item.

sef-643-001 (20190828)

64. Traffic Control Full Freeway Closure, Item SPV. 0060.02.

A Description

This special provision describes closing and re-opening a freeway or expressway.

B (Vacant)

C Construction

Install or reposition traffic control devices required for a full freeway closure and necessary service ramps. Remove or return traffic control devices to their previous configuration when the full closure is no longer required.

D Measurement

The department will measure Traffic Control Full Freeway Closure by each individual freeway closure that is set up and later removed in each traffic direction, 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	Traffic Control Full Freeway Closure	EACH

Payment is full compensation for closing and re-opening the freeway and service ramps. Traffic Control devices will be paid separately.

sef-643-003 (20180627)

65. Adjusting Water Valve Boxes, Item SPV.0060.03.

A Description

This special provision describes adjusting, protecting, and maintaining accessibility, for the duration of the paving project, to all City of Milwaukee water service boxes and water valve boxes located within the project limits.

B Materials

All material for the adjustment of these facilities shall meet City of Milwaukee specifications and will be provided by the City of Milwaukee by contacting Andray DeCordova, Milwaukee Water Works, at (414)708-3209 or Dave Goldapp, Milwaukee Water Works at (414) 286-6301.

If there is contractor damage, the materials must still be provided by the City of Milwaukee and the contractor will be charged for all materials. Materials furnished by the City of Milwaukee and not used on the project shall be delivered back to DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th St.

C Construction

Contact Milwaukee Water Works prior to the start of construction. The city will locate, mark, inspect and repair all water service boxes and water valve boxes within the limits of the project prior to commencement of work on the project.

All water service boxes and water valve boxes within the project limits will be adjusted to proposed elevations by the contractor using materials meeting city specifications.

Ensure that all water service boxes and water valve boxes are adequately located and identified by blue paint, and that at all times, all water appurtenances remain accessible for operation by city forces. Exercise caution working adjacent to water facilities to avoid damage and ensure accessibility.

The city will inspect all water facilities to ensure the water boxes are clean, properly aligned, and accessible. The contractor is responsible to make identified repairs and adjustments, and if any repairs or adjustments are made by the city, the cost will be charged to the contractor.

D Measurement

The department will measure Adjusting Water Valve Boxes by the each, 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	Adjusting Water Valve Boxes	EACH

Payment is full compensation for all excavation, backfilling, disposal of surplus materials, water box adjustments, water box clean-out, and restoration of the work site.

66. Cleaning Inlets, Item SPV. 0060.04.

A Description

This special provision describes the removal and disposal of accumulated sand, gravel, vegetation, and other debris in existing inlets.

B (Vacant)

C Construction

Remove inlet grate, clean existing inlet of all sand, gravel, vegetation, and other debris trapped in the structure, and replace grate. Mechanized vacuum/excavation equipment is permissible. Dispose of material as specified in standard spec 205.3.12.

D Measurement

The department will measure Cleaning Inlets by each individual inlet, 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. 0060.04	Cleaning Inlets	EACH

Payment is full compensation for removal and replacement of the inlet grate, removal and disposal of all debris from the inlet.

67. Field Facilities Office Space, Item SPV.0060.05.

A Description

This special provision describes furnishing, equipping, and maintaining a field office as required in the contract at engineer-approved locations conforming to standard spec 642 and as hereinafter provided.

B Materials

Provide Field Facilities Office Space conforming to standard spec 642.2.1 except delete paragraphs (1), (7), and (9).

Replace standard spec 642.2.1(4) with the following:

Provide and maintain suitable interior sanitary facilities conforming to State and local health requirements, in clean and good working condition, and stock with sanitary supplies for the duration of the contract. Furnish office space in an existing office building or existing building converted to office space with a minimum of 1200 square feet. The facility shall have no fee parking with a minimum parking for 15 cars. The space shall include a meeting room with a minimum of 350 square feet. The exterior door(s) shall have locks in good working order and keys provided for all field staff. The office space shall be located within 2 miles of the construction project.

Equip the office as specified in standard spec 642.2.2.1 except delete paragraph (1) and (4) and add the following:

1. Five suitable office desks with drawers and locks.
2. Five ergonomically correct office chairs in working condition with at a minimum: 5-legged base with casters, seat adjustable from 15 to 22 inches from the floor with a seamless waterfall, rounded, front edge, and high backrest with no arms or adjustable arms.
3. Four 6-foot folding tables.
4. One 10-foot folding table.
5. Five 2-drawer file cabinets.
6. Three 4-shelf bookcases.
7. Twenty folding chairs.

Provide for the professional cleaning of the field office during regular business hours twice monthly. Provide clearly marked recycling and waste receptacles within the field office, and separate recycling and waste dumpsters near the field office. Cover outdoor containers to keep out rain, snow, and wind-driven debris. Provide regularly scheduled recycling and waste pick-up.

Add the following to standard spec 642:

For field offices without indoor handwashing facilities, provide and maintain a portable handwashing station at every project field office. The station shall include a hands-free sink with foot pump-operated faucet, soap dispenser, paper towel dispenser, fresh water supply, and collection tank for gray water. When daily low temperatures fall below 40 degrees F, provide a hand sanitizing station consisting of lotion and/or wipes inside the field office within 2 feet of the field office entry. Regularly service and maintain the stations and all supplies as needed, and properly dispose of all materials. Costs associated with the handwashing station are incidental to the field office bid item.

C Construction

Conform to standard spec 642.3 except delete paragraph (2).

D Measurement

The department will measure the Field Facilities Office Space as each office, 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	Field Facilities Office Space	EACH

Payment is full compensation for providing, equipping, securing, and maintaining the facility; for parking, for telecommunications equipment, installation, and service fees; and for providing bottled water, utilities, fuel, ventilation, and toilet facilities as required, either independently or jointly with the field laboratory, for the time specified in standard spec 642.3.

The department will pay for the cost of telecommunications usage fees incurred by department staff.

SER-642.2 (20160808)

68. Utility Line Opening (ULO), Item SPV.0060.06.

A Description

This special provision describes excavating to uncover utilities for the purpose of determining elevation or location and potential conflicts as shown on the plans or as directed by the engineer.

B (Vacant)

C Construction

Perform the excavation in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Perform the utility line openings as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Give the engineer a minimum of three working days once utility line opening information is received to review all relevant design information prior to proposed utility construction. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Approve and coordinate all utility line openings with the engineer. Notify the utility engineers or their agents of this work a minimum of three days prior to the work so they may be present when the work is completed.

Replace pavement over utility line opening trenches which are within the staged traffic area as directed by the engineer. Replace pavement and open to traffic within 24 hours of the excavation.

D Measurement

The department will measure Utility Line Opening by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Utility Line Opening (ULO)	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; restoring the site; and for cleanup.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings are not considered part of or paid for under Utility Line Openings but are considered separate and measured and paid for separately as removal items. Pavement replacement material, concrete curb, gutter, and sidewalk items will also be considered separate from Utility Line Openings and will be measured and paid for separately.

69. Relocating Existing Single Arm Lighting Assembly, Item SPV.0060.10.

A Description

This special provision describes removing lighting assembly consisting of pole, arm, pole wiring and luminaire as shown in the plan; disconnecting associated underground conductors, repairing any marks on pole and reinstalling the existing lighting assembly according to the pertinent provision of the standard specifications and as hereinafter provided.

B Materials

Use the pole, arm, pole wiring mounting hardware and other existing lighting hardware salvaged from the site. Provide all other needed materials in conformance with standard spec 652.2, standard spec 655.2, standard spec 657.2, and standard spec 659.2.

C Construction

The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Store the lighting unit until the new concrete base is constructed and the site is ready for the lighting unit to be relocated.

Lighting unit components to be relocated:

Pole, arm, pole wiring, luminaires and lighting hardware.

Disconnect associated underground conductors feeding lighting units being removed. Dispose of components off-site appropriately; recycle materials where possible.

Perform work according to standard spec 652.3, standard spec 655.3, standard spec 657.3, and standard spec 659.3.

D Measurement

The department will measure Relocate Existing Single Arm Lighting Assembly as each individual relocated lighting 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.0060.10	Relocating Existing Single Arm Lighting Assembly	EACH

Payment is full compensation for relocating, transportation, disposing of the materials and appurtenances; and for removing related underground cable, splicing through the underground circuit.

70. Lighting Unit Grading, Item SPV.0060.18.

A Description

This special provision describes grading around the exposed concrete base on lighting units to eliminate hazards in the clear zone.

B Materials

C Construction

Regrade areas around exposed concrete bases identified in the plan. Fill existing holes adjacent to the base and provide a maximum of 2.5 to 1 slopes leading up to the existing concrete base. The maximum exposed base after grading is 3 inches.

D Measurement

The department will measure the Lighting Unit Grading by the each unit of measure, 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.0060.18	Lighting Unit Grading	EACH

Payment is full compensation for the grading, fill required for holes and to bring the adjacent ground up to the minimum exposed depth. Topsoil fertilizer, seed and erosion mat required will be paid for separately.

**71. Install Poles Type 9 Special, Item SPV.0060.30;
Install Monotube Arms 40-FT Type 9/10 Spec Pole, Item SPV.0060.31.**

A Description

This special provision describes installing state furnished materials conforming to standard spec 657, as detailed in the plans, and modified in this special provision.

B Materials

The department will furnish the monotube poles and monotube arms. Provide any other necessary material required to complete the installation as the plans show.

C Construction

Install equipment according to standard spec 657.3.

D Measurement

The department will measure Install Poles Type 9 Special and Install Monotube Arms 40-Ft Type 9/10 Spec Pole at the contract unit price, 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. 0060.30	Install Poles Type 9 Special	EACH
SPV. 0060.31	Install Monotube Arms 40-FT Type 9/10 Spec Pole	EACH

Payment for the Install Poles Type 9 Special bid item is full compensation for installing department furnished poles and for providing grounding lugs, fittings, shims, hardware, and other required components the department does not furnish.

Payment for the Install Monotube Arms 40-FT type 9/10 Spec Pole bid item is full compensation for installing department furnished arms; for providing high-strength bolt/nut/washer assemblies and DTIs including those required for testing; and for providing related mounting hardware, leveling shims, and other required components the department does not furnish.

**72. Strapping C-40-8, Item SPV.0060.40;
Strapping C-40-6, Item SPV.0060.41.**

A Description

This special provision describes securing a wing wall to a culvert or abutment body with a structural channel.

B Materials

Use galvanized structural channel conforming to the size and material shown on the plans and conforming to standard spec 506.

C Construction

Attach the structural channel with the number, size and spacing of anchors shown on the plans.

D Measurement

The department will measure Strapping (Structure) as each wing for the repair work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0060.40	Strapping C-40-8	EACH
SPV. 0060.41	Strapping C-40-6	EACH

Payment is full compensation for furnishing and installing the channel.

73. 4' Diameter Manhole Type CUC, Item SPV.0060.50.

A Description

The work under this special provision consists of a 4'-0" round precast concrete manhole for the City of Milwaukee Underground Conduit Section at locations shown in the plans, according to standard spec 301, 611 and 501, and as hereinafter provided.

B Materials

Furnish and install a 4' diameter precast concrete manhole. Concrete and steel reinforcement shall conform to ASTM specification: C478 (latest edition), except that the single cage circumferential reinforcement in all vertical walls shall consist of lines of #6 steel wire spaced 3" horizontally and lines of #10 steel wire spaced 8" vertically located in the center of the wall.

Cast two lifting inserts for 1-1/2" diameter lifting eyes in the wall of the base and all other riser sections except the top cap section.

Cast up to four 7/8" diameter galvanized steel 1-11/16" pulling-in eyes in the wall of the base section directly across from each duct entrance.

Cast four 5/8" diameter plastic threaded cable rack bolt inserts in the wall of the riser section.

Supply and lay a continuous circumferential Butyl Rubber gasket on the wall joint of the base and riser section when manhole is being assembled at job site.

The number of pulling-in eyes and/or cable rack bolt inserts may vary. Additionally, the size, location, shape and number of duct entrances and/or knock-out area may vary. Unit price of manhole shall not vary for number of openings, pulling-in eyes and/or rack bolt inserts.

The city will supply a frame and lid for the manhole. Contractor shall contact Mr. Ricardo Lopez, Inventory Clerk at (414) 286-6123 prior to obtaining the frame and lid from the DPW Headquarters at 3850 N. 35th St. Contractor must have the "Casting Requisition Form" which shall be supplied by the city at the Preconstruction Meeting.

For any questions on materials, contact Ms. Karen Roney at (414) 286-3243.

C Construction

4' Diameter Manholes Type CUC shall be installed according to standard spec 611.3.

Install the top of the roof deck at a standard depth of 18" below finished grade where possible. A minimum depth of 12" from finished grade to the top of the roof deck must be maintained.

Install manhole cover to proposed grade using concrete rings and/or bricks. Completely underpin entire flange area of manhole frame with mortar, bricks and/or concrete rings. Remove wedges/shims. Fill voids with grout. Do not back plaster inside walls.

D Measurement

The department will measure 4' Diameter Manhole Type CUC by each individual manhole, acceptably completed.

Notify Ms. Roney 3 working days in advance of completion of each manhole, for inspection and acceptance of work performed. The contractor will receive no payment until the above work is approved by City Underground Conduit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.50	4' Diameter Manhole Type CUC	EACH

Payment is full compensation for all excavation work and disposal of material; for adjusting manhole frame to final grade, for furnishing and installing all materials, including bricks, and coarse aggregate, bedding and backfilling, concrete forms, concrete placement, appurtenances, and backfilling.

74. 4' Diameter "Doghouse" Manhole Type CUC, Installed over Conduit, Item SPV.0060.51.

A Description

The work under this item consists of a 4'-0" diameter precast concrete "doghouse" manhole for the City of Milwaukee Underground Conduit Section at locations shown in the plans, according to standard spec 301, 611 and 501, and as hereinafter provided. This work includes providing and placing PVC pipe and associated fittings, cement encasement, and other appurtenances to extend existing conduit as required to provide a complete and fully functional communications manhole unit.

B Materials

B.1 Manhole

Furnish and install a 4' diameter precast concrete "doghouse" manhole. Concrete and steel reinforcement shall conform to ASTM specification: C478 (latest edition), except that the single cage of circumferential reinforcement in all vertical walls shall consist of lines of #6 steel wire spaced 3" horizontally and lines of #10 steel wire spaced 8" vertically both located in the center of the wall, and #6 hoop rebar centered in the wall 3" above the window knock-outs.

Two lifting inserts for 1-1/2" diameter lifting eyes shall be cast in the wall of the base and all other riser sections except the top cap section.

Up to four 7/8" diameter galvanized steel 1-11/16" pulling-in eyes shall be cast in the wall of the base section directly across from each duct entrance.

Four 5/8" diameter plastic threaded cable rack bolt inserts shall be cast in the wall of the riser section.

A continuous circumferential Butyl Rubber gasket shall be supplied, to be laid on the wall joint of the base and riser section when manhole is being assembled at job site.

The number of pulling-in eyes and/or cable rack bolt inserts may vary. Additionally, the size, location, shape and number of duct entrances and/or knock-out area may vary. Unit price of manhole shall not vary for number of openings, pulling-in eyes and/or rack bolt inserts.

Field verify window depth and locations prior to ordering manhole.

The city will supply a frame and lid for the manhole. Contact Mr. Ricardo Lopez, Inventory Clerk at (414) 286-6123 prior to obtaining the frame and lid from the DPW Headquarters at 3850 N. 35th St. Contractor must have the "Casting Requisition Form" which shall be supplied by the city.

B.2 Conduit

Furnish and install DB_60 polyvinyl chloride (PVC) conduit. Conduit will be accepted on the basis of a Manufacturer's Certificate of Compliance and WISDOT field inspection upon delivery to a project.

Manufacturers of PVC Conduit DB-60 shall request evaluation and approval of their products by filing with the department's Research Supervisor, Bureau of Highway Construction, a certificate setting forth the name or brand of pipe to be furnished, the specified type, category, grade and PVC plastic cell classifications. The certificate shall have attached a certified test report from an approved independent testing laboratory showing specific results of tests performed on each diameter conduit to be furnished conforming to all requirements of these specifications. The conduit tested shall be randomly selected for test by the independent testing laboratory as being representative of that manufacturer's conduit. The manufacturer of the conduit shall also submit with the certification, a guarantee that all conduit furnished be of the same quality and composition and conform to the specification requirements as tested by the independent laboratory, as long as the manufacturer continues to furnish materials for WISDOT projects.

PVC conduit and fittings shall conform to the requirements of Standard Specifications for Smooth-Wall Poly (Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation, ASTM Designation: F512 (latest edition).

B.3 Concrete

The type of concrete mix to be used to encase the ducts will be:

Type I Cement	280 lbs
Fly Ash	100 lbs
Sharp Torpedo Sand	3100 lbs
Water	35 gals
Chryso Air 260 or approved equal	2.0 ozs
Chryso Plast 209 or approved equal	7.0 ozs
Air	5%

Use a 3-inch +/- 1-inch slump for concrete.

For use air entrained concrete with 7.0 percent +/- 1.5 percent air content.

B.4 Slurry Backfill

Aggregate slurry backfill consists of No. 1 concrete aggregate Class 'C' concrete mix with the cement deleted.

Fly Ash (Class C)	75 lbs.
Concrete Sand (Damp)	1830 lbs.
No. 1 Concrete Aggregate	1830 lbs.

Mix with water to inundate the aggregate sufficiently to provide an approximate 3 inch slump. Deposit the mix directly from a concrete transit mix truck.

For any questions on materials, contact Ms. Karen Roney at (414) 286-3243.

C Construction

C.1 Conduit Alterations

Excavate to expose existing conduit. Break back by hand sections of cement encased conduit to facilitate excavation for the new proposed structure. Hand chip concrete away for the existing pipes. Carefully remove pipes from around the cables. Hand chip enough concrete away from the pipes to allow for the coupling of split ducts on to the ends of the pipes. Protect exposed pipe ends and existing cables from damage.

C.2 Manhole

Manhole Type CUC "Doghouse" shall be installed according to standard spec 611.3. The bottom section of the manhole shall be installed while avoiding damage to the live active cables. The excavation may need to be widened to slide the bottom under the existing cables. After the bottom section of the manhole has been set, the existing cables need to be placed within the window openings, splice cases and/or coils placed back into the manhole.

Exercise extreme care in the handling of working cables within the excavation. When cables need to be moved, particularly lead sheathed cables, move cables slowly and gradually. Avoid sharp kinks that may damage the inner core of the cables and the sheath.

Complete the "doghouse" manhole installation without any damage or service disruption to the existing cables.

Install 4' Diameter "Doghouse" Manholes Type CUC Installed over Conduit according to standard spec 611.3.

Install the top of the roof deck at a standard depth of 18" below finished grade where possible. A minimum depth of 12" from finished grade to the top of the roof deck must be maintained.

Install manhole cover to proposed grade using concrete rings and/or bricks. Completely underpin entire flange area of manhole frame with mortar, bricks and/or concrete rings. Remove wedges/shims. Fill voids with grout. Do not back plaster inside walls.

C.3 Placing Duct

All ducts shall be inspected before placing to see that the bores are clean and free from mud, sand, etc. Only ducts with a smooth bore, free from burrs, rough projections etc. shall be used. Where burrs or other rough areas likely to damage cable are found in the duct, they shall be smoothed off by rasping or scraping.

All existing ducts shall be extended into the new manhole structure unless otherwise noted on the plan. Split PVC duct should be used on ducts containing cables. The split duct shall be installed per manufactures recommendations using tape and reinforced with plastic straps to produce a rigid, stable unit.

All ducts shall terminate on the inside wall of the manhole. A standard end bell fitting shall be installed on all duct access points into the manhole.

Where trace wires are present, reconnect and extend trace with #10 copper wire extended two feet past the inside wall of the manhole.

C.4 Concreting

Begin concreting after conduit has been laid and the trench and duct have been inspected. The minimum concrete encasement of the ducts is 3 inches on the top, 2 inches on the sides, and 3 inches on the bottom. After placing, the concrete shall be puddled with a splicing bar or similar tool so that complete duct encasement is accomplished. Wood braces used to keep the conduit from floating shall be removed before the concrete sets completely and the resultant encasement voids filled with concrete.

Allow the concrete encasement to set for a minimum of 6 hours before backfilling is commenced.

C.5 Slurry Backfill

Commence backfilling immediately after the duct has been inspected, approved and has set to withstand the load.

An aggregate slurry as specified shall be used to backfill all concrete encased conduit. The trench shall be slurry backfilled to the proposed or existing subgrade. The mix shall be deposited in the trench directly from a concrete transit mix truck.

D Measurement

The department will measure 4' Diameter "Doghouse" Manholes Type CUC Installed over Conduit by each individual manhole, acceptably completed.

Notify Ms. Rogney 3 working days in advance of completion of each manhole, for inspection and acceptance of work performed. The contractor will receive no payment until the above work is approved by City Underground Conduit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.51	4' Diameter "Doghouse" Manholes Type CUC Installed over Conduit	EACH

Payment is full compensation for all excavation work and disposal of material; for adjusting manhole frame to final grade, for furnishing and installing all materials, including precast manhole, conduit, conduit fittings, end bells, bricks, and coarse aggregate, bedding, concrete forms, concrete placement, appurtenances, and backfilling.

75. Installing Conduit Into Existing Manhole, Item SPV.0060.52.

A Description

This special provision describes providing locating existing conduit system manholes and installing new conduit into those manholes at the locations shown on the plans. The contractor shall verify existing conduit manhole locations with the City of Milwaukee, and shall maintain any existing conductors, fibers, and conduit paths without interruption or damage. Repair and restoration of all disturbed areas resulting from the work shall be according to the pertinent provisions of the standard specifications, and as hereinafter provided.

B Materials

Conduit, as provided and paid for under other items in this contract. All materials shall conform to the pertinent provisions of the standard specifications unless otherwise noted.

C Construction

Carefully expose the outside of the existing structure without disturbing any existing conduits or cabling.

Drill the appropriate sized hole in a concrete structure or saw and remove full sections of block or bricks from the existing structure for the entering of conduit at a location within the structure that will not disturb the existing cabling and will not hinder the installation of new cabling within the installed conduit. This work may include the removal of the existing abandoned conduit from the structure to allow for the installation of the new conduits as indicated on the plans.

Fill any void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure.

Carefully tamp backfill into place.

All disturbed areas shall be repaired and restored in kind.

D Measurement

The department will measure Installing Conduit Into Existing Manhole by the unit, acceptably installed. Up to 6 conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of 6, or conduits entering at significantly different entry points into the existing manhole will constitute multiple units.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.52	Installing Conduit Into Existing Manhole	EACH

Payment is full compensation for drilling holes; removing blocks; removing bricks; removing abandoned conduit; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for disposal of surplus materials, and for making inspections.

76. Remove 2070 Controller, Item SPV.0060.60.

A Description

This special provision describes removing an existing 2070 style controller, and associated contact closure cards, from an existing cabinet and storing it for pick up by the department.

B Materials

Existing 2070 style controllers.

C Construction

Coordinate removal of the 2070 style controllers with the department's Statewide Traffic Management Center (TMC) by proposing the removal schedule a minimum of 2-weeks prior to the scheduled removal. Call at (414) 227-2166 to schedule the removal.

Disconnect all cables and wiring that are connected to the controller and carefully remove the controller and contact t closure cards from the cabinet. Salvage and store the materials for pick up by the department.

Do not remove the input card rack from the cabinet.

D Measurement

The department will measure Remove 2070 Controller by each item, 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.0060.60	Remove 2070 Controller	EACH

Payment is full compensation for disconnecting any necessary wiring; removing controller; and storing the controller for pickup.

77. Ground Rod, Item SPV.0060.61.

A Description

This special provision describes installing a ground rod and ground wire.

B Materials

Ground rod shall be copper clad steel with cladding 13 mils thick. The minimum diameter is 5/8-inch and the minimum length is eight feet. Ground wire shall be AWG # 6 bare, solid copper.

C Construction

Use exothermic welding to connect the ground wire to the rod. Install the rod vertically, or as close to vertical as conditions permit. Select locations with moist soil, if available. Place the rod at least six feet from all other ground rods.

D Measurement

The department will measure Ground Rod by each rod, 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. 0060.20	Ground Rod	EACH

Payment is full compensation for installation of the ground rod and ground wire; welding and connections at both ends of the ground wire.

78. Pull Boxes 13-Inch x 24-Inch x 24-Inch, Item SPV.0060.70.

A Description

This special provision describes providing and installing Pull Boxes 13-Inch x 24-Inch x 24-Inch (fiberglass/polymer concrete) at the locations shown on the plans according to standard spec 653.

B Materials

Furnish fiberglass/polymer concrete pull box of rectangular composite enclosure with Tier 15 Rating (15,000 lb Design Load) & (22,500 lb Test Load), and nominal 13" wide x 24" long and 24" total depth, flared wall style #CHB132424 as by Highline Products or #B12132424A as by Hubbell Power Systems, or approved equal. Cover shall be Tier 15 Rating (15,000 lb Design Load) & (22,500 lb Test Load), bolted cover with logo " Street Lighting" #CHC1324HL1 as by Highline Products or #C12132402A41 as by Hubbell Power Systems, or approved equal and use penta bolts to secure cover. The pull box shall be listed and labeled by (UL) or other Nationally Recognized Testing Laboratory.

C Construction

Conform to standard spec. 673.3 and City of Milwaukee standards. The pull box shall be installed on 12-inches of crushed stone, set flush with grade and backfilled.

D Measurement

The department will measure Pull Boxes 13-Inch x 24-Inch x 24-Inch as each individual pull box, 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.0060.70.	Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH

Payment is full compensation for furnishing and installing all materials, including pull box, end bells, crushed aggregate, excavation, backfilling, and for disposing of surplus material.

79. Poles Type 25-AL-BD, Item SPV.0060.71.

A Description

This special provision describes the minimum requirements for 25 foot aluminum bolt down street lighting pole assembly. All parts not specifically mentioned, which are necessary, or which are regularly furnished in order to provide this pole, shall be furnished, and shall conform in strength, quality of material and workmanship indicated in this specification. All work shall be according to standard spec 651.

The aluminum street lighting pole assembly to be furnished under this specification is to be round and tapered. The pole assembly shall be complete with shaft, pole cap, hardware, and base coating. All screws and fasteners shall be stainless steel or other approved materials.

The 25'-0" aluminum bolt down street lighting pole assembly shall be according to this specification and City of Milwaukee (DPW-Infrastructure Services Division) Drawing #B-14-13.

Minor deviations on the rest of the pole assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by the City of Milwaukee Street Lighting Engineering.

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following.

B Materials

B.1 Pole

The 25'-0" aluminum bolt down pole shaft shall be tapered from the top of the pole to the mounting plate. Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.

The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11" bolt circle. The mounting slots shall be sized for 1-inch mounting bolts. The base shall be welded to the shaft so the arms bisect the angle between mounting holes at 45 degrees.

The poles shall be built as a double bracket unit and supplied with one cover plate per pole.

The pole cap is to be cast aluminum and be secured to the pole by three equally spaced 1/4"-20 hex head stainless steel screws.

B.2 Hand Hole and Grounding

The hand hole shall be 4" x 6" nominal. A 1/4"-20 NC tapped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using 1/4"-20 NC by 3/4" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate

B.3 Loading and Stability

The 25'-0" assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical "wind sail" area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5. and height and exposure factors from table 3-5.

B.4

All Welding shall be according to the latest applicable A.S.M.E. Standards.

B.5

The manufacturer warrants that the pole supplied will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

B6

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

B.7 Riser Cable

Pole is to be wired as noted on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable shall be 35 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the metal housing. The ground wires shall be spliced inside the metal housing and grounded to the housing and each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

C Construction

Install the bolt down pole as specified in the plan and details. After raising the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.

D Measurement

The department will measure the Poles Type 25-AL-BD by each pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.71	Poles Type 25-AL-BD	EACH

Payment is full compensation for furnishing and installing the pole, riser cables, and all connections.

80. Luminaire Arms Single Member 6-Ft., Item SPV. SPV.0060.72.

A Description

The work under this item is for furnishing and installation of Luminaire Arms Single Member 6-Ft. as shown in the street lighting details and according to the following. All work shall be according to standard spec 651.

B Materials

Luminaire arm is 2" schedule 80 Aluminum pipe (6061-T6 Alloy) curved to the street lighting detail specifications. Mounting plate is ½" thick aluminum 6061-T6 Alloy.

C Construction

The luminaire arm shall be attached to the pole with two ½" x 13 NC x 1" long stainless steel bolts.

D Measurement

The department will measure the Luminaire Arms Single Member 6-Ft., by the each unit of measure, 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.0060.72	Luminaire Arms Single Member 6-Ft.	EACH

Payment is full compensation for furnishing and installing the luminaire arm, hardware, and all connections.

81. Luminaire Utility LED 3, Item SPV.0060.73.

A Description

This special provision describes furnishing and installing Luminaire Utility LED 3 street lighting fixture according to current City of Milwaukee electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

TECHNICAL SPECIFICATIONS: All features below shall be incorporated into the equipment and all items shall be furnished and installed into a complete unit ready for operation.

TYPE: The luminaire shall be designed so it can efficiently produce uniform illumination according to I.E.S. Type II light distribution according to the lighting plan.

Only luminaire that is readily available and of normal production item will be considered.

HOUSINGS: The entire housings shall be rugged, high quality, cast aluminum for maximum strength, durability and lasting beauty. All castings shall be free from pits, blowholes, or other irregularities. All edges are to be free from sharp burrs.

Upper Housing: The upper housing shall have an integral leveling pad or other suitable means for quick, easy and proper positioning of the luminaire.

Lower Housing: The lower housing or housings shall be hinged and easily opened for routine maintenance. All component parts shall be easily accessible with the lower housing opened.

Door: The door shall be hinged and easily opened downward for routine maintenance. All component parts shall be easily accessible with the lower housing opened. The door is to be cast aluminum for durability. Tool-less entry is required.

Hinges: Hinges shall be so constructed and designed to accurately position the lower housings and assure a positive locking with the upper housing. The hinges shall be provided with a safety catch to prevent the accidental disengagement of the lower housing during servicing.

Finish: The entire housing shall be polyester powder-coated for durability and corrosion resistance (4 mils/100 microns) with a ± 1 mils/24 microns of tolerance. The surface treatment shall yield >3000 hours of salt spray resistant finish per ASTM B117 standard. The housing shall have: 1) discoloration resistant finish according to ASTM D2244 standard, 2) luster retention that meets ASTM D523 standard, 3) humidity proof that meets ASTM D2247 standard.

The surface treatment shall yield >3000 hours of salt spray resistant finish that meets testing performed per ASTM B117 standard.

Color: The luminaire shall be of grey.

Label: There shall be only a NEMA label 2LED2 clearly visible at 25 feet height attached to the door of the luminaire. No other label is needed on the fixture. In addition, the luminaire complete model number and manufacturing date shall be indicated inside the housing.

OPTICAL ASSEMBLY: There shall be a minimum 40 LED on the optical assembly system. The refractor shall be UV stabilized optical grade polymer refractor lenses for optimal lighting distribution and superior lighting uniformity over time. The system is to be NEMA IP66 rated for dust and water resistant. The luminaires shall meet LM-63, LM-79 and TM-15(IESNA) standard for photometric performance.

The L₇₀ for the luminaires, per IESNA TM-21, must be ≥ 60,000 hours. The Lumen maintenance % is to be >97.5% at 60,000 hours of operation.

The color temperature is to be 3,000K CCT.

OPTICAL SYSTEM: The fixture shall be ordered with Type II light distribution according to the lighting plans.

VOLTAGE AND FREQUENCY: The fixture shall be designed for operation at 240 Volt, 60 Hertz without photoelectric cell receptacle. There shall be a built-in 7-pin NEMA twist locked recessed receptacle on the top of the luminaire. The 7-pin receptacle shall be equipped with shorting cap at time of installation.

HEAT MANAGEMENT: The fixture shall be designed and built with passive cooling mechanism (no cooling device with moving parts) by natural vertical convection air flow. The fixture shall be designed and built with openings to enable natural cleaning and removal of dirt and debris, and resistant to animal trapped or building nest on the luminaire. The luminaire shall be rated for operation in ambient temperature of -40°F to 104 °F.

DIMMER AND FIELD ADJUSTABLE OUTPUT SELECTOR

For Type II luminaire, a single type of luminaire shall satisfy the different wattage requirement. The luminaires input power should be factory set as shown on Table A.

The luminaire shall be supplied with dimmable driver and field adjustable output selector which enable the luminaire to provide 10,618 lumens to 15,160 lumens with efficacy >110. The field adjustable wattage chart shall be attached on the inside of the door opening.

POWER SUPPLY: The electronic driver must have an expected lifespan of ≥60,000 hours at 25°C ambient. The supplied driver shall be auto adjusting type with universal voltage input from 120 Volts to 277 Volts @ 60Hz.

SURGE PROTECTION

A surge protector which provides a minimum of 20kV/10kA protection as per IEEE/ANSI C62.41 Category C and ANSI C136.2-2015 is to be included. There shall be a visual indicator showing the surge protector is operational.

TERMINAL BLOCK A heavy duty terminal block shall be provided which will accept wire sizes up to #6 A.W.G. The terminal block shall be compatible with either aluminum or copper wire.

MOUNTING: The luminaire shall have an adjustable 2" slip fitter and integral pipe stop to permit entry of at least 5-1/2 inches of the bracket for secure mounting.

HARDWARE: All nuts, bolts, latches, etc. furnished with the luminaire shall be fabricated from stainless steel or other non-ferrous materials.

DRIVER: The luminaire shall be equipped with a 0-10V dimmable driver.

SURGE PROTECTOR: The luminaire shall be equipped with a 20kV/20kA surge protector as per Institute of Electrical and Electronics Engineers (IEEE)/ American National Standards Institute (ANSI) C62.41.2 Scenerio, Category C.

COLOR TEMPERATURE: The luminaire shall be of 3,000 K color temperature, minimum 70 Color Rendering Index.

LUMENS: The luminaire shall meet the specification shown on table A below.

TABLE A

Luminaire 90W LED (Type II, III distribution)	
Factory set input power (Watt)	90 ± 5%
# of LED	≥ 40
NEMA Label	2LED2 (for Type II) 2LED3 (for Type III)
Max. Dimension	22.75" (D) * 4.38" (H) *11"(W)
EPA (sq. ft.)	≤ 0.53
Weight	≤ 12.5 lbs
BUG Rating	B3-U0-G3
Min. Efficacy (lumen/Watt)	117
Min. Delivered Lumens	10,618

There shall be a manufacturing date code label inside the luminaire housing.

WARRANTY: The contractor and/or the manufacturer warrants that goods sold hereunder will be merchantable quality, will conform to applicable specifications, drawings designs, samples or descriptions, will be free from defects in material and workmanship and will be fit for the particular purpose intended by City of Milwaukee.

- i. This warranty will remain in effect for 10 years from date of acceptance.
- ii. Under this provision, the contractor and/or manufacturer agrees to repair or replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the city.

C Construction

Install lighting fixture on the six-foot mounting bracket on the pole according to current City of Milwaukee standards. Provisions for inserting 2#12UF cable with ground between the fixture and cable connecting point at pole hand hole shall be included per City of Milwaukee standards.

D Measurement

The department will measure Luminaire Utility LED 2 by the each, 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.0060.73	Luminaire Utility LED 3	Each

Payment is full compensation for furnishing and installing luminaire and all connections.

82. Expansion Joint Seal System, Item SPV.0090.20.

A Description

This special provision describes furnishing and installing a watertight expansion joint seal system at existing bridge expansion joints indicated on the plans.

B Materials

B.1 General

The expansion joint seal system shall be either a cellular foam with a factory applied and cured silicone facing system or an extruded preformed inorganic silicone gland system. The selected system must accommodate expansion and contraction; be able to be installed against either concrete or existing steel expansion device components; and be able to adhere to itself to allow for staged installation.

Select the system size appropriate to the movement and existing joint opening dimensions at each joint location that meet the project specifications or as defined by the Engineer. If the selected system requires additional expansion joint repairs or modifications that are not indicated in the plans, provide details to the Engineer for acceptance in accordance with section B.4 of this specification.

B.2 Foam/Silicone System

System shall be comprised of the following components: 1.) acrylic impregnated foam, 2.) factory-applied and cured silicone bellows facing on top side, 3.) field-applied epoxy adhesive, and 4.) field-injected silicone sealant bands.

Material shall be capable of movements of +50%, -50% (100% total) of nominal material size.

Silicone coating to be highway-grade, low-modulus, fuel resistant silicone factory-applied to the foam while it is partially pre-compressed to a width greater than maximum joint extension and cured before final compression. When compressed to final supplied dimension, a bellow(s) to handle movement must be created in the silicone coating.

Foam to meet the following requirements:

Property	Value	Test Method
Base material	Cellular, high density polyurethane foam	NA
Impregnation	Modified, water based acrylic	NA
Temperature service range High Low	185° F -40° F	ASTM C 711
UV resistance	No changes – 2,000 hours	ASTM G 155-00A
(Accelerated Weatherometer) Resistance to aging	No changes – 2,000 hours	ASTM G 155-00A
Bleeding: -40° F to 180° F	No bleeding when compressed to minimum of claimed movement	
Compression Set	Material recovers to +50% of nominal size within 24 hours of compression to -50% and simultaneous heating to 180° F for 3 hours	

Silicone coating to meet the following requirements:

Property	Value
Color	Black
Percent solids	96% min.
Specific gravity	1.26-1.34
Following tests conducted on sealant cured after 21 days at 77° F and 50% RH:	
Elongation	1400% min.
Joint modulus at 50% elongation	7 psi max.
Joint modulus at 100% elongation	8 psi max.
Joint modulus at 150% elongation	9 psi max.
Adhesion to concrete	+600% min. elongation
Adhesion to asphalt	+600% min. elongation
Joint movement capability, +100%/-50%, 10 cycles	No failure
Weatherability	Unaffected by climatic extremes
Flexibility	Cured sealant stays rubbery from -50° to 300° F

System to be installed into manufacturer's standard field-applied epoxy adhesive.

Furnish required or recommended primers, adhesives, or other ancillary materials from the same manufacturer as the foam/silicone system or as recommended by the manufacturer.

B.3 Silicone Gland System

System shall be comprised of the following components: 1.) extruded preformed inorganic silicone gland in an inverted "V" shape and 2.) single part silicone adhesive.

Silicone gland to meet the following requirements:

Property	Value	Test Method
Durometer (Shore A)	55 +/- 5	ASTM D 2240
Tensile Strength	1,000 psi min.	ASTM D 412
Elongation	400% min.	ASTM D 412
Tear Strength (Die B)	100 ppi min.	ASTM D 624
Compression Set at 212° F 70 hours	30% max.	ASTM D 395

Silicone adhesive to meet the following requirements:

Property	Value	Test Method
Tensile Strength	200 psi min.	ASTM D 412
Elongation	450% min.	ASTM D 412
Tack free time	20 minutes max.	ASTM C 679
Cure time ¼" bead	24 hours max.	ASTM C 679
Resistance to UV	No cracking, ozone chalking or degradation	ASTM C 793

Furnish required or recommended primers, adhesives, or other ancillary materials from the same manufacturer as the silicone gland system or as recommended by the manufacturer.

B.4 Project Submittal Requirements

Submit material certification and installation instructions for the proposed system at each location at least 21 calendar days prior to planned installation to the Engineer for review and acceptance. Provide the manufacturer's name and proposed system details including movement range, temperature setting tables, and details of turned up sections at the parapets. Do not begin work until the Engineer provides acceptance of the proposed system and installation methods.

C Construction

C.1 Surface Preparation

Remove the existing neoprene gland(s).

Prepare concrete surfaces or existing steel expansion joint components per selected product manufacturer's instructions and recommendations.

C.2 Installation

Install selected expansion joint seal system per manufacturer's recommendations and installation instructions at locations shown on the plans.

A manufacturer's representative must be present during the preparation and installation at the first installation and shall be available to the Engineer for the duration of this project.

D Measurement

The department will measure Expansion Joint Seal System by the linear foot, acceptably completed, measured along the centerline of the joint.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.20	Expansion Joint Seal System	LF

Payment is full compensation for removing existing gland(s); cleaning and preparing surfaces; and furnishing and installing the expansion joint seal system.

83. 4-Duct Conduit, Cement Encased, 3-inch Rigid Nonmetallic Conduit DB-60, Item SPV.0090.50

A Description

This special provision describes furnishing and installing cement encased multiple duct conduit packages below grade as shown on the plans and as hereinafter described.

B Materials

B.1 Conduit

Furnish and install DB-60 polyvinyl chloride (PVC) conduit. Conduit will be accepted on the basis of a Manufacturer's Certificate of Compliance and WISDOT field inspection upon delivery to a project.

PVC conduit and fittings shall conform to the requirements of Standard Specifications for Smooth-Wall Poly (Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation, ASTM Designation: F512 (latest edition).

B.2 Conduit Spacers

Furnish and install nonmetallic interlocking base spacers and intermediate spacers that provide a 1-1/2" vertical and 1-1/2" horizontal separation between PVC pipes. The base spacers shall provide a 3" vertical separation from the trench bed to the bottom of the PVC pipes.

B.3 Conduit Bed

Furnish and install a minimum 2" conduit bed of stone chips or crushed stone screenings conforming to the following:

3/8 Inch Crushed Stone Chips

Sieve Sizes	% Passing by Weight
1/2"	100
3/8"	90-100
No. 8	0-15
No. 30	0-3

Crushed Stone Screenings

Sieve Sizes	% Passing by Weight
1/2"	100
No. 4	75-100
No. 100	10-25

B.4 Concrete

The type of concrete mix to be used to encase the ducts will be:

Type I Cement	280 lbs
Fly Ash	100 lbs
Sharp Torpedo Sand	3100 lbs
Water	35 gals
Chryso Air 260 or approved equal	2.0 ozs
Chryso Plast 209 or approved equal	7.0 ozs
Air	5%

Use a 3-inch +/- 1-inch slump for concrete.

For use air entrained concrete with 7.0 percent +/- 1.5 percent air content.

B.5 Slurry Backfill

Aggregate slurry backfill consists of No. 1 concrete aggregate Class 'C' concrete mix with the cement deleted.

Fly Ash (Class C)	75 lbs.
Concrete Sand (Damp)	1830 lbs.
No. 1 Concrete Aggregate	1830 lbs.

Mix the materials with water to inundate the aggregate sufficiently to provide an approximate 3 inch slump. Deposit the mix in the trench directly from a concrete transit mix truck.

B.6 Pull Rope

Pull rope specifications will be:

- Flat construction (7/16" to 5/8" wide)
- 100% woven aramid fiber (may include tracer wire)
- 1500 lbs. Minimum pull strength prelubricated
- sequential footage markings for location

For any questions on materials, contact Ms. Karen Roney at (414) 286-3243.

C Construction

C.1 Excavation

The excavation shall have the minimum or maximum dimensions shown on the plans and as follows:

Number of Ducts Wide	Minimum (Inches)	Maximum (Inches)
1	6 1/2	10
2	12 3/4	16 1/4
3	18	21 1/2
4	23 1/4	26 3/4
5	28 1/2	32
6	33 3/4	37 1/4
7	39	42 1/2
8	44 1/4	47 3/4

These minimum and maximum trench widths apply to standard 3 inch PVC electrical duct only. When required, the excavation may be widened for the handling and placing of materials.

Sheath and brace open-cut trenches as required by code and as necessary to maintain safety. The cost of furnishing, placing and removing of sheathing and bracing shall be included in the unit bid for the work.

The dimensions of the excavation will be governed by the number, configuration and the grade (cover) to which the conduit is to be installed as shown on the plan. The walls of the excavation shall be clean and true.

Prior to excavating trenches, expose the existing manhole and conduit lines. The object of this is to permit adjustments in line and grade to avoid special construction methods. Protect the exposed manhole and conduit from damage.

Lay the conduit at a depth so that sufficient protection from damage is provided. Allowable covers shall be as follows:

The standard cover for mainline conduit is 39 inches and the minimum cover acceptable is 28 inches.

Maintain the standard cover wherever possible and any deviation less than the minimum cover requires the approval of the engineer.

Grade the trench to have a minimum pitch of three inches per 100 feet. When an obstruction is encountered in the trench and it is necessary to excavate a deeper trench than would otherwise be required, in order to obtain drainage, refer the matter to the engineer to determine whether the extra excavation should be made.

In grading a trench for mainline conduit, there are three general practices for direction of pitch.

- When grading a trench in a street with a level grade, the high point of the trench bottom should ordinarily be centered between manholes and pitched downward equally toward each manhole.
- Where the street slopes in one direction, locate the high point of the trench bottom approximately 30 feet from the end wall of the higher manhole and grade toward both manholes.
- Where a steep grade is encountered, grade the trench at the minimum pitch from the end wall of the higher manhole to a point 20 feet plus or minus toward the lower manhole. From this point, follow the street grade at the standard cover to a point 20 feet plus or minimum away from the end wall of the lower manhole. From this point, the remainder of the section shall be laid at the normal pitch.

After the rough excavation is completed, prepare the bottom of the trench to receive the conduit. Bring the duct bed to the final grade by grading uniformly from the high point to the low or drainage points. Use stone chips or crushed stone screenings to grade the trench. The duct bed shall be a minimum of 2" in depth.

C.2 Placing of Duct

Proceed with placing the ducts as soon as the duct bed has been completed. Inspect all ducts before placing to see that the bores are clean and free from mud, sand, etc. Use only ducts with a smooth bore, free from burrs, rough projections etc. Smooth off burrs or other rough areas likely to damage cable are found in the duct by rasping or scraping.

Place the duct on base spacers with the ends staggered so no two couplings are adjacent. This may be accomplished by the use of the short lengths in stock or cutting back full length sections to the desired lengths. If cut pieces are used, place the cut end at the manhole. Locate the base spacers within 2 feet of the end of each duct and one base spacer located in the middle of the duct.

Use full length pieces for the balance of the conduit line.

Formations of two ducts or more in height are to be carried forward in full formation, that is, as each tier of 20 foot lengths is laid, the next higher tier of ducts shall then be placed on the intermediate spacers. Place these intermediate spacers on top of the base spacers located within two feet from each duct end and one in the middle of each duct. Place the intermediate spacers and ducts for the remaining tiers. Glue each length into the adjoining coupling. A twist and push on the duct being placed will suffice for a water tight joint. Exercise caution in the driving operation, so that neither the coupling nor the duct will be split or damaged in any way. After the full formation has been completed, place wood trench and duct bracing on the ducts to prevent shifting or floating while the concrete envelope is being placed and during driving operation.

This procedure shall be followed with succeeding lengths, providing spacers at the proper intervals, until sufficient trench footage of completed formation has been placed and is ready to receive concrete encasement.

The terminating point for mainline conduit will be the inside manhole wall. Install a standard end bell fitting flush with the wall on all duct access points.

Install a #10 copper tracer wire along and above the centerline of the duct for encasement in the concrete. The wire shall be 4 feet longer than the run of conduit and be at least 2 feet long at each access point.

Install a pull rope in each run of conduit, as laid. The rope shall be 4 feet longer than the run of conduit and shall be doubled back at least 2 feet at each raceway access point. Anchor the pull rope at each access point in a manner acceptable to the engineer.

C.3 Concreting

Begin concreting after sufficient conduit has been laid and the trench and duct have been inspected. The minimum concrete encasement of the ducts is 3 inches on the top, 3 inches on the sides, and 3 inches on the bottom. After placing, puddle the concrete with a splicing bar or similar tool so that complete duct encasement is accomplished. Remove wood braces used to keep the conduit from floating before the concrete sets completely and the resultant encasement voids filled with concrete.

Allow the concrete encasement to set for a minimum of 6 hours before backfilling is commenced.

C.4 Slurry Backfill

4. Slurry Backfill. Commence backfilling of the conduit immediately after the duct has been inspected, approved and has set to withstand the load.

An aggregate slurry as specified shall be used to backfill the concrete encased conduit. The trench shall be backfilled to the proposed or existing subgrade. The mix shall be deposited in the trench directly from a concrete transit mix truck.

D Measurement

The department will measure 4-Duct Conduit Cement Encased, 3-Inch Rigid Non-Metallic Conduit DB-60, furnished and installed at the locations on the plans, will be measured by the linear foot acceptably installed. The measured quantity will equal the linear feet of encased duct, based on the distance along the centerline of duct between ends of conduit. City of Milwaukee shall have final acceptance by the linear feet, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.50	4-Duct Conduit Cement Encased 3-Inch Rigid Nonmetallic Conduit DB-60	LF

Payment is full compensation for furnishing the conduit, conduit bodies, conduit fittings, conduit spacers, end caps, pull rope and trace wire; for excavating, bedding, encasement and backfilling including any concrete, stone, aggregate slurry, bracing, or other related materials; for disposing of surplus materials, and for making inspections, for installing the conduit.

84. Outdoor Rated Network Cable, Item SPV.0090.60.

A Description

This special provision describes furnishing and installing outdoor rated network cable in new or existing conduit or as directed by the engineer. It also includes installing state-furnished network communications extenders as required.

B Materials

Furnish outdoor rated Category 5e, or better, UTP cable with water-blocking flooded core and UV-resistant polyethylene jacket. Cable shall consist of 4-pairs of 24 AWG solid copper conductors and shall meet the requirements of ANSI/TIA/EIA 5 68A Category 5e, CENELEC EN50173, ICEA S-90-661, and ISO/IEC 11801.

Furnish an RJ45 connector for each end of the cable.

State-furnished network communications extenders.

C Construction

Install the cable following the manufacturer's installation guidelines.

Install the RJ45 connectors (if not done prior to installation) according to manufacturer's installation guidelines.

Install a network communications extender as shown on the plans when cable length exceeds 100 meters.

Use a purpose built "Pass-Fail" network cable tester to test the network cable installation for Category 5, Class E compliance. Repair any connections or cable as needed for the test to register a "Pass".

Connect the cable to the devices on each end as shown on the plans or as directed by the engineer.

D Measurement

The department will measure Outdoor Rated Network Cable by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.60	Outdoor Rated Network Cable	LF

Payment is full compensation for furnishing, installing, and testing the outdoor rated network cable; for installing network communications extenders where required, and for connecting the cable to the devices at each end of the cable.

85. Trnspt & Install State Furn Traffic Signal Cabinet STH 145 & Fond du Lac Avenue, Item SPV.0105.01.

A Description

This special provision describes the transporting and installing of department furnished materials for traffic signals.

B Materials

Use materials furnished by the department including: the traffic signal controller and the traffic signal cabinet.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials 5 working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

Request a signal inspection of the completed signal installation to the engineer at least 5 working days prior to the time of the requested inspection. The department's Region Electrical personnel will perform the inspection.

Coordinate directly with the department's traffic signal cabinet vendor {TAPCO at (262) 814-7327 or rickk@tapconet.com / TCC at (651) 439-1737 or mallwood@trafficcontrolcorp} to schedule the cabinet acceptance testing. Coordinate with the department's Electrical Field Unit at (414) 266-1170 to participate in the acceptance testing. The department has final determination of the cabinet acceptance testing date and time.

D Measurement

The department will measure Trnspt & Install State Furn Traffic Signal Cabinet (Location) as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0105.01	Trnspt & Install State Furn Traffic Signal Cabinet STH 145 & Fond Du Lac Avenue	LS

Payment is full compensation for transporting and installing the traffic signal controller and the traffic signal cabinet; for furnishing and installing all other items necessary (such as wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

86. Trnspt & Install State Furn Radar Detect Sys STH 145 & Fond du Lac Avenue, Item SPV.0105.02.

A Description

This special provision describes the transporting and installing of department furnished Traffic Signal Radar Detection System on monotube poles or arms.

B Materials

Pick up the department furnished Radar Detection System at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical field unit (EFU) at (414) 266-1170 to make arrangements for picking up the department furnished materials at least 5 working days prior to material pick-up.

C Construction

Install the department furnished pole/arm mounting brackets, extension arms (if required) and radar units per manufacturer recommendations in the locations determined by the department.

Install the power and communication cable to run continuously (without splices) from the traffic signal cabinet to the pole handhole plus an additional 16-feet in each pull box and an extra 10-feet in the pole handhole. Install the detector unit cable whip to the power and communication cable in the pole handhole using the provided junction box.

Mark each end of the lead in the traffic signal cabinet and each cable in the pole handhole to indicate the equipment label (i.e. RA1, RA2, etc.) on the plans. For a cabinet that is not operating the signal, the contractor will terminate the ends. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify department's Electrical Shop at (414) 266-1170 upon completion of the installation and aiming of the radar units.

The department will provide the vendor's contact information. Coordinate directly with the department's radar detection system vendor to arrange for the vendor to program the radar detection system on site. Notify the department and vendor at least five working days prior to the date of programming. Assist the department and vendor with fine adjusting of the radar units during the radar system programming, if necessary.

D Measurement

The owner will measure Trnspt & Install State Furn Radar Detect Sys as a single lump sum unit of work for each intersection, 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. 0105.02	Trnspt & Install State Furn Radar Detect Sys STH 145 & Fond Du Lac Avenue	LS

Payment is full compensation for transporting and installing the radar detection system, cable, mounting hardware, and radar units; and assisting the department and vendor during the radar system programming.

87. Trnspt Traffic Signal & Inter Light Materials STH 145 & Fond du Lac Avenue, Item SPV.0105.03.

A Description

This special provision describes the transporting of department furnished materials for traffic signals and intersection lighting.

B Materials

Transport materials furnished by the department including: Monotube arms and poles.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials 5 working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

D Measurement

The department will measure Trnspt Traffic Signal & Inter Light Materials (Location) as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0105.03	Trnspt Traffic Signal & Inter Light Materials STH 145 & Fond Du Lac Avenue	LS

Payment is full compensation for transporting the monotube poles and arms. Installation of these materials is included under a separate pay item.

88. Fiber Wrap Reinforcing Structural, Item SPV.0165.01.

A Description

This special provision describes providing structural strengthening using externally bonded, high-strength, fiber reinforced polymer (FRP) composite/epoxy resin systems field-applied per the details shown on the plans..

B Materials

B.1 Materials

Furnish a glass or carbon composite fabric that is a continuous unidirectional filament woven fabric with a primary fiber of electrical (E) glass or carbon, respectively.

Use a two-component, solvent-free with 0% Volatile Organic Compound (VOC) epoxy that is supplied by the manufacturer. Polyester resin shall not be allowed as a substitute for epoxy resin. Deliver epoxy materials in factory sealed containers with the manufacturer's labels intact and legible with verification of the date of manufacture and shelf life.

The protective top coating shall be concrete gray in color and match the color of the adjacent unwrapped concrete. Protective top coating shall be vapor permeable and UV resistant.

The use of more than one FRP system in a project is not permitted. All components, including primer, putty, filler, protective coating, and other materials, shall be compatible with the FRP system.

Store products in a protected area at a temperature between 40°F and 100°F with no moisture contact, no UV exposure, protected from dirt, chemicals, and physical damage, and according to the manufacturer's requirements. Do not use components exceeding their shelf lives.

Provide the following to the engineer:

- The manufacturer's data sheet indicating physical, mechanical and chemical characteristics of all materials used in the FRP system including the primer, putty, resin, saturant, fibers, and top coating.
- The manufacturer's Material Safety Data Sheets (MSDS) for all materials used.
- The manufacturer's instructions for installation and repair, including information on lap details if required.
- The manufacturer's storage and handling requirements of all materials.

Supplied composite fabric and epoxy resin products must have a minimum of ten installations. Furnish proof of successful installations including date of construction and owner references. Furnish certified test reports including 1000 hour tests for 140°F, water, and salt water.

B.2 Design

It is the responsibility of the contractor to submit, to the department, a design and supporting documentation as required by this special provision that is compliant with the design specifications. The FRP strengthening shall provide additional structural strength as shown on the structural plans. A copy of the below listed information shall be submitted to the engineer for review and acceptance no later than 60 days from the date of notification to proceed with the project.

The design/shop plans shall be prepared on reproducible sheets, 11" x 17" size, including borders. Each sheet shall have a title block including the project identification number and structure number. Drawings shall specifically identify number of layers, fiber orientation direction, dimensions, and any required laps, including their location and lengths. If anchors are required, drawings shall specifically identify type and properties of anchors, location of anchors, embedment depth, and splay width and length. Design calculations and notes shall be on 8-1/2" x 11" sheets and shall contain the project identification number, date of preparation, initials of the designer and the checker, and a page number at the top of the page. All plans and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the FRP repair shall conform to the latest edition ACI 440.2R *Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Concrete Structures* including all updates and errata, the standard specifications, this special provision, and standard engineering design procedures as determined by the department, with the following exceptions to ACI 440.2R:

- The strengthening limit check in equation 9-1 can be omitted.
- The fire endurance check in equation 9-2 can be omitted.
- The value of d (distance from the extreme compression fiber to the centroid of the tension reinforcement) need not be taken less than $0.8 \cdot h$ as specified in ACI 318-14 Section 22.5.2.1, where h is the height of the member. The effective depth of the FRP shear reinforcement d_{fv} can also be calculated using this limited d .

FRP laminate design values must be lower than the calculated mean determined from the test results of ASTM D7565 and/or ASTM D3039 field test specimens.

If more than three layers of FRP are required for the design, contact BOS to discuss before proceeding. It is desirable that no more than three layers of FRP be used.

For shear applications, U-wraps or complete (full) wraps must be used; side bonding is not allowed. Provide at least a 2 inch gap between FRP strips.

C Construction

C.1 Certified Applicators

Installers shall have a minimum of 3 years of experience performing similar FRP composite strengthening and be trained and certified by the manufacturer of the supplied FRP composite/epoxy resin system being used. Submit a list of completed surface bonded FRP composite strengthening projects completed with the manufacturer's FRP composite system in the past 3 years. The list shall include a minimum of 10 projects with the proposed FRP system, the dates when work was performed, general description of work, quantity of work and owner references. Provide written verification from the FRP composite manufacturer that the applicator has received the required training and is a certified installer by the FRP manufacturer.

C.2 Surface Preparation

Remove spalled and loose concrete.

Grind uneven surfaces or protrusions until smooth. Any corners or edges shall be rounded over to a minimum radius of 1/2-inch. This requirement also applies to beveled edges which must be ground smooth to eliminate sharp spots.

Per standard spec 509, treat any areas of active corrosion of the reinforcement and patch the concrete surface so as to restore it to its original dimensions. When patching the concrete substrate, remove defective concrete down to sound concrete; the extents of the area to be removed and patched shall be 1/2-inch beyond the boundary of the distress on all sides. If there is a loss of bond between the reinforcing steel and the concrete, remove the surrounding concrete to a depth equal to the greater of 3/4-inch or the maximum aggregate size plus 1/4-inch. If surface repair is performed, allow patches to cure a minimum of 10 days before FRP application or until the surface moisture is less than 4%. This work to be paid for under separate bid items per the plans.

Epoxy inject cracks in the concrete larger than 0.25 mm in width at least 24 hours prior to FRP installation. Seal cracks smaller than 0.25mm in width in aggressive environments at the direction of the engineer. This work to be paid for under a separate bid item per the plans.

Preserve and utilize the required existing reinforcing steel, and blast clean, realign, and retie as the engineer directs. If additional reinforcement is required, use grade 60 steel conforming to AASHTO M31 and standard spec 505.2. Repair damage to existing, epoxy-coated reinforcement conforming to standard spec 509.3.1.

The concrete surface shall be clean, and free of any material that could interfere with bonding, such as dirt, grease, wax, etc. The surface must also be free of moisture with a maximum moisture content of 4%. Immediately prior to bonding all contact surfaces shall receive a final cleaning by hand or oil-free compressed air to remove any residual dust, powder residue or laitance.

On each member to receive FRP, prepare an adjacent area just beyond the limits of the repair using the same surface preparation as the repair area for testing. Test the tensile bond strength of the prepared concrete substrate per ACI 503R at a minimum of 1 location per member. Location(s) will be determined by the engineer. A passing test will have a tensile strength greater than 250 psi, or a failure into the substrate where more than 50% of the core area has failed deeper than 1/4-inch. Patch the hole(s) created by the pull off tests. All tests shall be conducted in the presence of the engineer.

C.3 Installation

Place FRP only under the following conditions or per manufacturer's recommendation:

- Ambient temperature and the temperature of the epoxy resin components shall be between 55°F and 90°F during the entire application process.
- Relative humidity less than 85%.
- Surface temperature more than 5°F above the dew point.
- Moisture level of all contact surfaces, included patched areas, less than 4% unless the resin has been specifically formulated for wet applications.

Unless directed otherwise by the engineer, install the FRP after all dead loads have been applied to the bridge. Do not install FRP while the component being repaired is subjected to live loads.

Apply, per manufacturer's instructions, a system-compatible putty as required to fill uneven surfaces or recesses. Depending on the manufacturer, the putty may be applied before or after the primer.

Apply the primer coat uniformly to the substrate using a roller or trowel. Primed and puttied surface shall be protected from all contaminants (i.e., dust, moisture, etc.) prior to the application of the fiber wrap.

Mix the components of the epoxy resin with a mechanical mixer and apply the epoxy resin uniformly to the fiber at a rate that ensures complete saturation of the fabric. Apply saturating resin uniformly to the prepared substrate. Begin resin application within one hour after the batch has been mixed. Use all resin within the pot life as specified by the manufacturer.

Apply the fabric as shown on the shop drawings. Fiber orientation shall not deviate from the orientation shown on the shop drawings. Handle fiber wraps in a manner to maintain fiber straightness and prevent fiber damage. Any kinks, folds, or severe waviness will not be accepted. Use rollers or hand pressure to remove any air trapped between the fabric and the concrete, or between fabric plies. Rolling must be parallel to the direction of the fibers to avoid fiber misalignment or damage. Do not use metal serrated rollers because they can damage the FRP fabric.

If anchors are required, install per manufacturer's instructions. When drilling in anchors, avoid prestressing strands. If needed, request girder shop drawings from the Bureau of Structures to locate strands.

Stagger the joints between layers so that a continuous sheet in one layer will span the joints of the sheets in the layer below. If multiple layers cannot all be placed in one day, defer to the manufacturer to determine the extent of the cure and surface preparation required for the previously placed layers required before proceeding. Laps shall be as shown on the design/shop drawings, with a minimum edge lap of 6 inches and a minimum end lap of 12 inches. Laps should be staggered between layers.

Cover the final layer of fabric with a coat of epoxy that produces a uniform finished surface and detail fabric edges, including terminations points, with thickened epoxy or putty per manufacturer's instructions.

Cure per manufacturer's instructions. The FRP system shall be protected from weather, large temperature variations, moisture, sand, dust, and other foreign particles during curing. Do not allow the system to be subjected to live loads until it is completely cured. Defer to manufacturer's instructions regarding the degree of cure which must be achieved before additional dead loads can be applied to the wrapped member.

An additional protective coating is required to protect the fibers from the elements, specifically UV radiation, and to give the final aesthetic effect. Install protective coating per manufacturer's instructions after the field inspection described in section C.4.3 has been conducted. To prepare the FRP surface to receive the coating, clean and roughen the exterior surfaces of the composite wrap using a light abrasive after the final epoxy coat is completely polymerized. The abrasive shall be of the appropriate hardness to roughen the surface without damaging the fibers. Remove all dust, dirt, and other bond inhibiting materials and dry all cleaned and roughened surfaces.

For each member to receive FRP, install FRP using the same methods described above on the area adjacent to the repair area that received surface preparation and pull off testing in Section C.2. This area will be used for acceptance testing.

C.4 Testing and Acceptance

C.4.1 Records and Sampling

The contractor shall record the following information for each installation:

- Date, time, and specific location of installation.
- Surface preparation methods.
- Widths and lengths of cracks not injected with epoxy.
- Material information including product used, fiber and resin lot/batch numbers, mixture ratios, mixing times, etc.
- Ambient temperature, relative humidity, and general weather observations at the beginning and end of each installation.
- Concrete surface temperature, concrete moisture content, and surface cleanliness.
- Number of FRP layers used and fiber orientation of each layer.
- Square footage of fabric and volume of epoxy used each day.

Prepare a minimum of two sample batches daily for each layup configuration, each consisting of two 12" x 12" samples of cured composite (for a total of at least four samples daily per layup configuration). Collect materials for the sample batches at an appropriate spaced interval during the day to ensure the maximum material deviance in the components of the FRP composite.

Prepare samples on a smooth, level surface covered with polyethylene sheeting or 16 mil plastic film. Prime the sheeting or film surface with epoxy resin. Place layers of saturated fabric to match layup configuration and apply additional topping of epoxy. Cover with plastic film and squeegee out all air bubbles. Store samples flat in a sample box or in a protected area and do not move for a minimum of 48 hours after casting.

C.4.2 Laboratory Testing and Acceptance

The prepared, identified samples shall be tested by an approved, experienced laboratory. Precondition the samples at 140°F for 48 hours before testing. Cut test specimens from samples provided and test for ultimate tensile strength, tensile modulus and percentage elongation per ASTM D7565 and/or ASTM D3039 in the longitudinal fiber direction.

Test a minimum of 15% of all samples per ICC AC178, *Interim Criteria for Inspection and Verification of Concrete and Reinforced and Unreinforced Masonry Strengthening Using Externally Bonded Fiber Reinforced (FRP) Composite Systems*. If one set of coupons fails to meet the design values (on average), then the other 12" x 12" sample from the same sample batch will be tested. If the second sample tested also fails (on average) to meet the design values, the remaining sample batch for that day will be tested and appropriate remediation shall be taken to ensure the integrity of the system at the locations from the failed sample batch.

FRP design values must be lower than the calculated mean determined from the test ASTM D7565 and or ASTM D3039 test results. Acceptable minimum values for the ultimate tensile strength, tensile modulus and elongation shall not be below the submitted design values.

Any test result values (on average) below the manufacturer's submitted design values are considered a failure and require remediation subject to the approval of the engineer.

Testing must be conducted prior to the subjecting the FRP to live traffic loads. In cases of staged construction, this may necessitate more than one round of testing.

C.4.3 Field Testing

After the initial resin has cured, conduct a minimum of two tensile bond tests per 1,000 square feet according to ASTM D7522 in the presence of the engineer and at location(s) specified by the engineer. Drill cores through the FRP and into the existing concrete a minimum of 1/4-inch but no more than 1/2-inch. A passing test will have a tensile strength greater than 200 psi, with a failure into the substrate where more than 50% of the core area has failed deeper than 1/4-inch. Immediately patch test core holes by blowing out with oil-free and moisture-free compressed air, and filling epoxy per manufacturer's instructions.

In the presence of the engineer, the contractor will conduct a visual and acoustic sounding inspection to test for defects such as voids, delaminations, external cracks, chips, cuts, loose fibers, external abrasions, blemishes, foreign inclusions, depressible raised areas, or fabric wrinkles. Conduct this inspection after placement and cure of the protective coating.

In the presences of the engineer, the contractor will conduct a visual inspection of the protective coating for damage including but not limited to cracking, crazing, blisters, peeling, or external abrasions. Conduct this inspection after placement and cure of protective coating.

If any defects are found, they must be repaired as detailed in C.4.4, or removed and replaced.

C.4.4 Required Remediation

Inject or back fill any small voids or bubbles (1-1/2" diameter or less) with epoxy. If five or more such voids are found in an area smaller than 10 square feet, submit a proposed remediation procedure subject to the acceptance of the engineer.

Voids or delaminated areas greater than 3" in diameter or an equivalent rectangular area shall be reported to the engineer. Proposed remediation procedure(s) for addressing these areas are subject to the acceptance of the engineer.

In the event the laboratory testing determines a sample batch possesses material properties (on average) below the material properties assumed for design, remedial measures are required. Any structural member where the installed FRP composite system has tested material properties below the values used for the design must be remediated. Install additional layers or provide other remediation acceptable to the engineer.

Fiber misalignment exceeding 5 degrees (approximately 1" of deviation over 1 foot length) is considered unacceptable. Proposed remediation is subject to the acceptance of the engineer.

D Measurement

The department will measure Fiber Wrap Reinforcing Structural by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Fiber Wrap Reinforcing Structural	SF

Payment is full compensation for supplying a design and shop drawings; preparing required submittals; cleaning the surfaces of elements to be strengthened; furnishing, transporting, handling, and installing the fabric, finish coat of epoxy, the final protective coating system; sampling, sample preparation, and field and laboratory testing; and required remediation. No extra measurement or payment will be made for overlap areas. Repairing damage to existing reinforcement is incidental to this item.

**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 18 (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 7 (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.

II. 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.*

III. 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 underrepresentation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

- (1) To increase the overall effectiveness of the State highway agencies' approved training programs.
- (2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

Authority

Wisconsin Department of Transportation (WisDOT) is a recipient of funds from the US Department of Transportation's Federal Highway Administration. The DBE program is a federal program applicable on all contracts administered by WisDOT that include federal-aid highway funds. The authority for the DBE program is the Transportation Bill as approved by Congress periodically. DBE program guidance and requirements are outlined in the Code of Federal Regulations at 49 CFR Part 26. This contract is subject to DBE provisions because it is financed with federal-aid-highway funds. Additionally, this contract is subject to the *State of Wisconsin Standard Specifications for Highway and Structure Construction* and all applicable contract documents.

Requirements

Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE program regulatory provisions will be considered a material breach of contract. This is nonnegotiable.

If a contractor fails to carry out the DBE program requirements and/or the Required Contract Provisions for Federal Aid Contracts (FHWA 1273) referenced in this document, sanctions will be assessed depending upon the facts, reasoning, severity, and remedial efforts of the contractor that may include: termination of contract, withholding payment, assessment of monetary sanctions, and/or suspension/debarment proceedings that could result in the disqualification of the contractor from bidding for a designated period of time.

- (1) At time of bid, ALL prime contractors must submit DBE Commitments on projects with DBE goals. The submittal of the DBE Commitments includes the DT1506 (Commitment to Subcontract to DBE), which can be attached as a PDF or entered digitally into the bid submittal and Attachments A OR quotes from all DBEs included on the Commitment. The prime contractor must submit a signed Attachment A via eSubmit (preferred) or the DBE Alert email box within 24-hours of the bid closing for all quotes submitted at the time of bid. If the assigned DBE contract goal is not met, Form DT1202 (Documentation of Good Faith Effort) and all supplemental DT1202 documentation is due within 24-hours of bid closing. Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment (Section 9).
- (2) The Department requires this list of DBE subcontractors from all bidders at time of bid to ensure the lowest possible cost to taxpayers and fairness to other bidders and subcontractors. Bid shopping is prohibited.
- (3) The contractor must utilize the specific DBE firms listed in the approved DBE Commitment to perform the work and/or supply the materials for which the DBE firm is listed unless the contractor obtains written consent in advance from WisDOT. The contractor will not be entitled to payment for any work or materials on the approved DBE Commitment that is not performed or supplied by the listed DBE without WisDOT's written consent.

Description

The Wisconsin Department of Transportation is committed to the compliant administration of the DBE Program. The DBE provisions work in tandem with FHWA 1273 and WisDOT's *Standard Specifications for Highway and Structure Construction* and *Construction and Materials Manual*. The WisDOT Secretary is signatory to assurances of department-wide compliance.

The Department assigns the contract DBE goal as a percentage of work items that could be performed by certified DBE firms on the contract. The assigned DBE goal is expressed on the bid proposal as a percentage applicable to the total contract bid amount.

- (1) WisDOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned contract DBE goal by subcontracting work to a DBE firm or by procuring services or materials from a DBE firm.
- (2) Under the contract, the prime contractor should inform, advise, and develop participating DBE firms to be more knowledgeable contractors who are prepared to successfully complete their contractual agreement through the proactive provision of assistance in the following areas:
 - § Produce accurate and complete quotes
 - § Understand highway plans applicable to their work
 - § Understand specifications and contract requirements applicable to their work
 - § Understand contracting reporting requirements
- (3) The Department encourages contractors to assist DBE subcontractors more formally by participating in WisDOT's Business Development program as a mentor, coach, or resource. For comprehensive information on the Disadvantaged Business Enterprise Program, visit the Department's Civil Rights and Compliance Section website at: <http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx>

1. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

- a. **Assigned DBE Contract Goal:** The percentage shown on the cover of the Highway Work Proposal that represents the feasible level of DBE participation for each contract. The goal is calculated using the Engineer's Estimate and DBE Interest Report. Goal assignment includes review of FHWA funds, analyzes bid items for subcontract opportunity and compatibility with DBE certified firm work codes. Additional factors considered include proximity, proportion, and regulations.
- b. **Bid Shopping:** In construction law, bid shopping is the practice of divulging a subcontractor's bid to another prospective contractor(s) before or after the award of a contract to secure a lower bid.
- c. **DBE:** Disadvantaged Business Enterprise – A for-profit small business concern where socially and economically disadvantaged individuals own at least a 51% interest and control management and daily business operations.
- d. **DBE Commitment:** The DBE Commitment is identified in the Commitment to Subcontract to DBE (Form DT1506) and is expressed as the amount of DBE participation the prime contractor has secured. The DT1506, a contract document completed by the bidder, is required to be considered a responsive bidder on an FHWA-funded contract that has an assigned DBE goal. The prime contractor will have the option to submit the DT1506 digitally, as an entry with the bid in Bid Express, or as an attachment to the bid.
- e. **DBE Utilization:** The actual participation of a DBE subcontractor on a project. WisDOT verifies DBE utilization through review of the DBE Commitment, payments to subcontractors, and contract documentation. The Prime Contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved DBE Commitment, and those submitted after approved commitment with Attachment A.
- f. **Good Faith Effort:** Legal term describing a diligent and honest effort taken by a reasonable person under the same set of facts or circumstances. For DBE subcontracting, the bidder must show that it took all necessary and reasonable steps to achieve the assigned DBE goal by the scope, intensity, and

appropriateness of effort that could reasonably be expected for a contractor to obtain sufficient DBE participation.

- g. **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.
- h. **Reasonable Price:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price.
- i. **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.
- j. **Tied quote:** Subcontractor quote that groups multiple bid/line items at a bundled/package price with a notation that the items within the quote will not be separated.

2. WisDOT DBE Program Compliance

a. Documentation Submittal

The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A OR quotes from all DBEs included in the Commitment will be submitted at bid by ALL prime contractors. If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) must be submitted within 24-hours of bid closing. Supplemental DT1202 documentation and signed Attachments A from DBEs included in the DBE Commitment are also due within 24-hours of bid closing. Form DT1202, supporting GFE documentation, and signed Attachments A, not submitted at the time of bid, must be submitted through eSubmit (preferred) or to the DBE Alert email box.

****Bidders have the option of submitting the DBE Commitment at the time of bid via direct entry through Bid Express OR with attachment of Form DT1506 (Commitment to Subcontract to DBE). The DBE Commitment entered with bid is the digital form of the DT1506. Separate submission of Form DT1506 is not required if the DBE Commitment is entered in Bid Express. Form DT1202, if applicable, is no longer required to be submitted at time of bid; submit DT1202 within the 24-hour supplemental time frame following bid closing.**

Naming conventions: Follow eSubmit [instructions](#), OR when emailing files, use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, GFE" and "Project #, Proposal #, Let date, Business Name, Attachment A" Email: DBE_Alert@dot.wi.gov

The DBE Office will not certify Good Faith Effort and the Bureau of Project Development will consider the bid nonresponsive if the contractor fails to furnish the DBE Commitment (digitally entered into the bid OR Form DT1506 as an attachment), Attachments A, and Form DT1202 if applicable, as required. See sample forms in the Appendix.

b. Verification of DBE Commitment

The documentation related to DBE subcontract commitment submitted prior to contract award is evaluated as follows:

(1) DBE Goal Met

If the bidder indicates that the contract DBE goal is met, the Department will evaluate the DBE Commitment submitted with bid OR Form DT1506, and Attachments A to verify the actual DBE

percentage calculation. If the DBE Commitment is verified, the contract is eligible for award with respect to the DBE Commitment.

(2) DBE Goal Not Met

- a) If the bidder indicates a bid percentage on the DBE Commitment that does not meet the assigned DBE contract goal, the bidder must request alternative evaluation of good faith effort through submission of Form DT1202 (Documentation of Good Faith Effort) within 24-hours of bid including narrative description. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. The Department will review the bidder's DBE Commitment and evaluate the bidder's good faith efforts submission.
- b) Following evaluation of the bidder's Good Faith Effort documentation the bidder will be notified that the Department intends to:
 1. *Approve* the request (adequate documentation of GFE has been submitted)- no conditions placed on the contract with respect to the DBE Commitment;
 2. *Deny* the request (inadequate documentation of GFE has been submitted)- the contract is viewed as non-responsive per Wisconsin Standard Specifications for Highway and Structure Construction and will not be executed.
- c) If the Department denies the bidder's request, the contract is ineligible for award. The Department will provide a written explanation for denying the request to the bidder. The bidder may appeal the Department's denial (see Section 4).

Supplemental good faith effort documentation must be submitted through eSubmit (preferred) OR to the DBE Office by email at: DBE_Alert@dot.wi.gov. Email naming convention: "Project #, Proposal #, Let date, Business Name, GFE"

3. Department's Criteria for Good Faith Effort Documentation

The Federal-aid Construction Contract Provision, referenced as FHWA-1273, explicitly states that the prime contractor shall be responsible for all work performed on the contract by piecework, station work, or subcontract. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of the contract including assurances of equal employment opportunity laws, DBE regulations, and affirmative action. Compliance encompasses responsible and responsive action, documentation, and good faith effort.

Contractually, all contractors, subcontractors, and service providers on the contract are bound by FHWA 1273 and DBE program provisions. **Prime contractors should encourage subcontractors to utilize DBE firms whenever possible to contribute to the assigned DBE contract goal.**

Bidders are required to document good faith effort. Per 49 CFR Part 26.53, good faith effort is demonstrated in one of two ways. The bidder:

- (1) Documents that it has obtained enough DBE participation to meet the goal; OR
- (2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed

Appendix A of 49 CFR Part 26 provides guidance concerning good faith efforts. WisDOT evaluates good faith effort on a contract basis just as each contract award is evaluated individually.

The efforts employed by the bidder should be those that WisDOT can reasonably expect a bidder to take to actively and aggressively obtain DBE participation sufficient to meet the DBE contract goal. The Department will only approve demonstration of good faith effort if the bidder documents the quality, quantity, and intensity of the variety of activities undertaken that are commensurate with expected efforts to meet the stated goal.

The Department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort activity. 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.

a. Solicitation Guidance for Prime Contractors:

- (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use WisDOT-approved DBE outreach tools, including the UCP DBE Directory and the Bid Express Small Business Network to foster DBE participation on all applicable contracts.
- (2) As needed, request assistance with DBE outreach and follow-up by contacting the Department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Phone numbers are (414) 438-4584 and/or (608) 267-3849; Fax: (414) 438-5392; E-mail: DBE_Alert@dot.wi.gov
- (3) Participate in and document a substantive conversation with at least one DBE firm per Let, to discuss questions, concerns, and any other contract related matters that may be applicable to the DBE firm. Guidelines for this conversation are provided in Appendix A of ASP-3.
- (4) Request quotes by identifying potential items to subcontract and solicit. In their initial contacts, contractors are strongly encouraged to include a single page, 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 B.* 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 firms to do work in a prime contractor's area of specialization.
 - i. Solicit quotes from certified DBE firms who match possible items to subcontract using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which quotes are being sought to DBE_Alert@dot.wi.gov
 - ii. Acceptable outreach tools include SBN (Small Business Network, see Appendix C): <https://www.bidx.com/wi/main>, postal mail, email, fax, and phone.
 - a. Contractors must ask DBE firms for a response in their solicitations. *See Sample Contractor Solicitation Letter*, Appendix B. This letter may be included as an attachment to the sub-quote request.
 - b. Solicit quotes at least 10 calendar days prior to the letting date to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.
 - c. A follow up solicitation should take place within 5 calendar days of the letting date. Email and/or SBN are the preferred method for the solicitation.
 - iii. Upon request, provide interested DBE firms with adequate information about plans, specifications, and the requirements of the contract by letter, information session, email, phone call, and/or referral.
 - iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit, or insurance if requested.
 - v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
 - a. Email to all prospective DBE firms in relevant work areas
 - b. Phone call log to DBE firms who express interest via written response or call
 - c. Fax/letter confirmation
 - d. Signed copy of record of subcontractor outreach effort

b. Guidance for Evaluating DBE quotes

- (1) Quote evaluation practices required to evaluate DBE quotes:
 - i. Reasonable Price: Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and

non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price. See 49 CFR Part 26, Appendix A. IV.D(2).

- (2) Documentation submitted by the prime of the following evaluation is required to evaluate DBE quotes by contractors:
 - i. Evaluation of DBE firm's ability to perform "possible items to subcontract" using legitimate reasons, including but not limited to, **a discussion** between the prime and DBE firm regarding its capabilities prior to the bid letting. If lack of capacity is the reason for not utilizing the DBE firm's quote, the prime is required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area indicated by the NAICS code(s) listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
 - a In striving to meet an assigned DBE contract goal, contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.
 - b Additional evaluation - Evaluation of DBE quotes with tied bid items. Typically, this type of quoting represents a cost saving but is not clearly stated as a discount. Tied quotes are usually presented as an 'all or none' quote. When non-DBE subcontractors submit tied bid items in their quotes, the DBE firm's quote may not appear competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples:
 - i Compare bid items common to both quotes, noting the reasonableness in the price comparison.
 - ii Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

See Appendix D – *Good Faith Effort Evaluation Measures* and Appendix E - *Good Faith Effort Best Practices*.

- c. **Requesting Good Faith Effort Evaluation** At the time of bid- if the DBE goal is not met in full, the prime contractor must indicate they will file form DT1202- Documentation of Good Faith Effort within 24-hours of bid submission. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. Supporting documentation for the DT1202 is to include the following:
 - (1) Solicitation Documentation: The names, addresses, email addresses, and telephone numbers of DBE firms contacted along with the dates of both initial and follow-up contact; electronic copies of all written solicitations to DBE firms. A printed copy of SBN solicitation is acceptable.
 - (2) Selected Work Items Documentation: Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.
 - (3) Documentation of Project Information provided to interested DBEs: A description of information provided to the DBE firms regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE firm.
 - (4) Documentation of Negotiation with Interested DBEs: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts.
 - (5) Documentation of Sound Reasoning for Rejecting DBEs and copies of each quote received from a DBE firm and, if rejected, copies of quotes from non-DBEs for same items.
 - (6) Documentation of Assistance to Interested DBEs- Bonding, Credit, Insurance, Equipment, Supplies/Materials
 - (7) Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support: Contact organizations and agencies for assistance in contacting, recruiting, and

providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Naming conventions: eSubmit (preferred) follow instructions OR when emailing files, use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, GFE" Email: DBE_Alert@dot.wi.gov

If the Good Faith Effort documentation is deemed adequate, the request will be approved and the DBE office will promptly notify the Prime Contractor and Bureau of Project Development.

If the DBE Office denies the request, the Prime Contractor will receive written correspondence outlining the reasons. The Department encourages the Prime Contractor to communicate with DBE staff to clarify any questions related to meeting goals and/or contractor demonstration of good faith efforts.

If the contract is awarded, the Prime Contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved DBE Commitment. No contractor, prime or subsequent tier, shall be paid for completing work assigned to a DBE subcontractor on an approved DBE Commitment unless WisDOT has granted permission for the reduction, replacement, or termination of the assigned DBE in writing. If a prime contractor or a subcontractor on any tier uses its own forces to perform work assigned to a DBE on an approved DBE Commitment, **they will not be paid for the work**. Any changes to DBE Commitment after the approval of the DBE Commitment must be reviewed and approved by the DBE Office prior to the change (see Section 9).

4. Bidder's Documentation of Good Faith Effort Evaluation Request Appeal Process

A bidder can appeal the Department's decision to deny the bidder's demonstration of Good Faith Effort through Administrative Reconsideration. The bidder must provide a written justification refuting the specific reasons for denial as stated in the Department's denial notice. The bidder may meet in person with the Department if so requested. Failure to appeal within 5 business days after receiving the Department's written notice denying the request constitutes a forfeiture of the bidder's right of appeal. Receipt of appeal is confirmed by email date stamp or certified mail signed by WisDOT staff. A contract will not be executed without documentation that the DBE provisions have been fulfilled.

The Department will appoint a representative who did not participate in the original good faith effort determination, to assess the bidder's appeal. The Department will issue a written decision within 5 business days after the bidder presents all written and oral information. In that written decision, the Department will explain the basis for finding that the bidder did or did not demonstrate an adequate good faith effort to meet the contract DBE goal. The Department's decision is final.

5. Determining DBE Eligibility

Directory of DBE firms

- a. The only resource for DBE firms certified in the State of Wisconsin is the Wisconsin Unified Certification Program (UCP) DBE Directory. WisDOT maintains a current list of certified DBE firms at: <http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx>
- b. The DBE Program office is available to assist with contracting DBE firms:(608) 267-3849.

- c. DBE firms are certified based on various factors including the federal standards from the Small Business Administration that assigns a North American Industrial Classification (NAICS) Codes. DBE firms are only eligible for credit when performing work in their assigned NAICS code(s). If a DBE subcontractor performs work that is not with its assigned NAICS code, the prime contractor should contact the DBE Office to inquire about compatibility with the Business Development Program.

6. Counting DBE Participation

Assessing DBE Work

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 UCP agencies. 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:

- a. The Department counts work performed by the DBE firm's own resources. The Department includes the cost of materials and supplies the DBE firm obtains for the work. The Department also includes the cost of equipment the DBE firm leases for the work. The Department will not include the cost of materials, supplies, or equipment the DBE firm purchases or leases from the prime contractor or its affiliate, with the exception of non-project specific leases the DBE has in place before the work is advertised.
- b. The Department counts fees and commissions the DBE subcontractor charges for providing 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 program engineer deems reasonable based on experience or prevailing market rates.
- c. If a DBE firm subcontracts work, the Department counts the value of the work subcontracted to a DBE subcontractor.
- d. The contractor will maintain records and may be required to furnish periodic reports documenting its performance under this item.
- e. It is the Prime Contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.
- f. It is the Prime Contractor's responsibility to assess the DBE firm's ability to perform the work for which it is committing/contracting the DBE to do. Note that the Department encourages the Prime Contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- g. The Prime Contractor will inform the DBE office via email of all DBE subcontractors added to the project following execution of the contract. The Prime Contractor may omit submission of another form DT1506, but must submit signed Attachment A forms for additional DBE firms.
- h. See Section 7 for DBE credit evaluation for Trucking and Section 8 for DBE credit evaluation for Manufacturers, Suppliers, and Brokers

Naming conventions: When emailing files, please use the following language to identify your submission-
"Project #, Proposal #, Let date, Business Name, Attachment A" Email: DBE_Alert@dot.wi.gov

*Note: A sublet request is required for DBE work, regardless of subcontract tier, and also for reporting materials or supplies furnished by a DBE.

- Sublet Requests via form DT1925 or WS1925 are required for 1st Tier DBEs
- For all 2nd Tier and below notification of DBE sublet is indicated by the contractor entering them in CRCS

7. Credit Evaluation for Trucking

All bidders are expected to adhere to the Department's current trucking policy posted on the HCCI website at: <http://wisconsin.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf>

The prime contractor is responsible for ensuring that all subcontractors including trucking firms, receive Form FHWA 1273: <https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

See Section 8 for Broker credit.

8. Credit Evaluation for Manufacturers, Suppliers, Brokers

The Department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The Department will count the material and supplies that a DBE firm provides under the contract for DBE credit based on whether the DBE firm is a manufacturer, supplier, or broker. Generally, DBE credit is determined through evaluation of the DBE owner's role, responsibility, and contribution to the transaction. Maximum DBE credit is awarded when the DBE firm manufactures materials or supplies. DBE credit decreases when the DBE firm solely supplies materials, and minimal credit is allotted when the DBE firm's role is administrative or transactional. It is the bidder's responsibility to confirm that the DBE firm is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506 or DBE Commitment submitted with the bid.

a. Manufacturers

- (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
- (2) If the materials or supplies are obtained from a DBE manufacturer, **100%** percent of the cost of the materials or supplies counts toward DBE goals.

b. Regular Dealers of Material and/or Supplies

- (1) Supplies purchased in bulk from DBE firms at the beginning of the season may be credited to current contracts if submitted with appropriate documentation to the DBE office.
- (2) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
- (3) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
- (4) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
 - i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
 - ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

- (5) When DBE suppliers are contracted, additional documentation must accompany the DBE Commitment and Attachment A forms. An invoice or bill-of-sale that includes names of the bidder and the DBE supplier, along with documentation of the calculations used as the basis for the purchase agreement, subcontract, or invoice. WisDOT recognizes that the amount on the Attachment A form may be more or less than the amount on the invoice per b.(1) above.
 - i. The bidder should respond to the following questions and include with submission of form DT1506 or the DBE Commitment entered with bid:
 - a. What is the product or material?
 - b. Is this item in the prime's inventory or was the item purchased when contract was awarded?
 - c. Which contract line items were referenced to develop this quote?
 - d. What is the amount of material or product used on the project?

c. Brokers, Transaction Expeditors, Packagers, Manufacturers' Representatives

- (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit. However, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies, or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions.
- (2) Brokerage fees are calculated as **10%** of the purchase amount.
- (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees, or transportation charges for the delivery of materials or supplies required on a job site.
- (4) Evaluation of DBE credit includes review of the contract need for the item/service, the sub-contract or invoice for the item/service, and a comparison of the fees customarily allowed for similar services to determine whether they are reasonable.

9. DBE Commitment Modification Policy (Formerly "DBE Replacement Policy")

a. Issuing a Contract Change Order

Any changes or modifications to the contract once executed are considered contract modifications and as such require a change order. In addition, the DBE office must provide consent for reduction, termination, or replacement of subcontractors approved on the DBE Commitment *in advance* of the modification for the prime contractor to receive payment for work or supplies. Additions to the DBE Commitment do not require advance notification of the DBE office. (see below e. DBE Utilization beyond the approved DBE Commitment)

b. Contractor Considerations

- (1) A prime contractor cannot modify the DBE Commitment through reduction in participation, termination, or replacement of a DBE subcontractor listed on the approved DBE Commitment without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.
- (2) If a prime contractor reduces participation, replaces, or terminates a DBE subcontractor who has been approved for DBE credit toward its contract, the prime is required to provide documentation supporting its inability to fulfill the contractual commitment made to the Department regarding the DBE utilization.
- (3) The Prime Contractor is required to demonstrate efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE subcontractor that was terminated, to the extent needed to meet the assigned DBE contract goal. When additional opportunity is available by contract modifications, the Prime Contractor must utilize DBE subcontractors that were committed to equal work items, in the original contract.

- (4) In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason, or is terminated from a contract, the Prime Contractor must undertake efforts to maintain its commitment to the assigned DBE goal.
- (5) The DBE subcontractor should communicate with the Prime Contractor regarding its schedule and capacity in the context of the contract. If the DBE firm anticipates that it cannot fulfill its subcontract, they will advise the Prime Contractor and suggest a DBE subcontractor that may replace their services and provide written consent to be released from its subcontract.
 - i. Before the Prime Contractor can request modification to the approved DBE Commitment, the Prime Contractor must:
 - a. Make every effort to fulfill the DBE Commitment by working with the listed DBE subcontractor to ensure that the firm is fully knowledgeable of the Prime Contractor's expectations for successful performance on the contract. Document these efforts in writing.
 - b. If those efforts fail, provide written notice to the DBE subcontractor of the Prime Contractor's intent to request to modify the Commitment through reduction in participation, termination, and/or replacement of the subcontractor including the reason(s) for pursuing this action.
 - c. Copy the DBE Office on all correspondence related to changing a DBE subcontractor who has been approved for DBE credit on a contract, including preparation and coordination efforts.
 - d. Clearly state the amount of time the DBE firm has to remedy and/or respond to the notice of intent to replace/terminate. The DBE must be allowed five days from the date notice was received as indicated by email time stamp or signed certified mail, to respond, in writing. EXCEPTION: The Prime Contractor must provide a verifiable reason for a response period shorter than five days. For example, a WisDOT project engineer or project manager confirms that WisDOT has eliminated an item the DBE subcontractor was contracted for.
 - e. The DBE subcontractor must acknowledge the contract modification with written response to the Prime Contractor and the DBE Office. If objecting to the subcontract modification, the DBE subcontractor must outline the basis for objection to the proposed modification, providing sound reasoning for WisDOT to reject the prime's request.

c. Request to Modify DBE Subcontracting Commitment

The written request referenced above may be delivered by email or fax. The request must contain the following:

1. Project ID number
2. WisDOT Contract Project Engineer's name and contact information
3. DBE subcontractor name and work type and/or NAICS code
4. Contract's progress schedule
5. Reason(s) for requesting that the DBE subcontractor be replaced or terminated
6. Attach/include all communication with the DBE subcontractor to deploy/address/resolve work completion

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, MODIFICATION" Email: DBE_Alert@dot.wi.gov + Project Engineer

WisDOT will review the request and any supporting documentation submitted to evaluate if the circumstance and the reasons constitute good cause for replacing or terminating the approved DBE subcontractor.

Good Causes to Replace a DBE subcontractor according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract

- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The prime has determined that the listed DBE subcontractor is not a responsible contractor
- The listed DBE subcontractor voluntarily withdraws from the project and provides written notice of its withdrawal
- The listed DBE subcontractor is ineligible to receive DBE credit for the type of work required
- A DBE firm owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract

d. Evaluation and Response to the Request

WisDOT's timely response to the Prime Contractor's request for modification of the approved DBE Commitment will be provided to the prime and the WisDOT project engineer via email.

If WisDOT determines that the Prime Contractor's basis for reduction in participation, replacement, or termination of the DBE subcontractor is not consistent with the good cause guidelines, the DBE office will provide a response via email within 48-hours of receipt of request from the Prime Contractor as indicated by email time stamp. The communication will include: the requirement to utilize the committed DBE, actions to support the completion of the contractual commitment, a list of available WisDOT support services, and administrative remedies, including withholding payment to the prime, that may be invoked for failure to comply with federal DBE guidelines for DBE replacement.

The WisDOT contact for all actions related to modification of the approved DBE Commitment is the DBE Program Engineer who can be reached at DBE_Alert@dot.wi.gov or (414) 335-0413.

e. DBE Utilization beyond the approved DBE Commitment

When the prime or a subcontractor increases the scope of work for an approved DBE subcontractor or adds a DBE subcontractor who was not on the approved form DT1506 or DBE Commitment submitted with bid at any time after contract execution, this is referred to as voluntary DBE contract goal achievement. The contractor must follow these steps to ensure that the participation is accurately credited toward the DBE goal:

- (1) Forward a complete, signed Attachment A form to the DBE Office. A complete Attachment A includes DBE subcontractor contact information, signatures, subcontract value, and description of the work areas to be performed by the DBE. The DBE Office will verify the DBE participation and revise the DBE Commitment based on the email/discussion and the new Attachment A.
- (2) When adding to an existing DBE Commitment, submit a new Attachment A to the DBE Alert mailbox
- (3) OR Submit a final Attachment A to DBE Alert during the Finals Process when Compliance receives notice of "Substantially Complete"
 Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, New Attachment A" Email: DBE_Alert@dot.wi.gov

Special note on trucking

- DBE truckers added to the sublets in CRCS *will* be approved without DBE credit (You will see a “N” in CRCS instead of “Y”)
- Prime Contractors may enter a “place holder” e.g. \$1000.00, for DBE Trucking in CRCS if the full amount of trucking is unknown for sublet purposes only
- The hiring contractor may obtain the Attachment A with DBE signature included but the **Prime Contractor** must sign the Attachment A before submitting

10. Commercially Useful Function

- a. Commercially Useful Function (CUF) is evaluated after the contract has been executed, while the DBE certified firm is performing contracted work items.
- b. The Department uses Form DT1011, DBE Commercially Useful Function Review and Certification to evaluate if the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.
- c. A DBE firm is performing a commercially useful function if the following conditions are met:
 - (1) For contract work, the DBE is responsible for executing a distinct portion of the work and is carrying out its responsibilities by actually performing, managing, and supervising that work.
 - (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for DBE Primes

WisDOT calculates DBE credit based on the amount and type of work performed by DBE certified firms for work submitted with required documentation. If the prime contractor is a DBE certified firm, the Department will only count the work that the DBE prime performs with its own forces for DBE neutral credit. The Department will also calculate DBE credit for work performed by any other DBE certified subcontractor, DBE certified supplier, and DBE certified manufacturer on the contract in each firm’s approved NAICS code/work areas that are submitted with required documentation. Crediting for manufacturers and suppliers is calculated consistent with Section 8 of this document and 49 CFR Part 26.

12. Joint Venture

If a DBE performs as a participant in a joint venture, the Department will only count the portion of the total dollar value of the contract equal to the portion of the work that the DBE performs with its own forces, for DBE credit.

13. 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. DBE credit is evaluated and confirmed by the DBE Office for any contracts on which the mentor-protégé team identifies itself to the DBE Office as a current participant of the Mentor-Protégé Program.
- c. Refer to WisDOT’s Mentor-Protégé guidelines for guidance on the number of contracts and amount of DBE credit allowed on WisDOT projects.

14. Use of Joint Checks

The use of joint checks is allowable if it is a commonly recognized business practice in the material industry. A joint check is defined as a two-party check between a DBE subcontractor, a prime contractor, and the regular dealer or materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE firm in cases where the DBE subcontractor and materials have been approved for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE firm is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE firm must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

- a. The Prime Contractor must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
 - (1) Request should be made when the DBE Commitment or the Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
 - (2) Approval/Permission must be granted prior to the issuance of any joint checks.
 - (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
 - (4) The joint check for supplies must be strictly for the cost of approved supplies.
- b. The DBE subcontractor is responsible for furnishing and/or installing the material/work item and is not an 'extra participant' in the transaction. The DBE firm's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following:
 - (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price, and delivery of materials.
 - (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.
- c. The Prime contractor/payor acts solely as a guarantor.
 - (1) The Prime Contractor agrees to furnish the check used for the payment of materials/supplies under the contract.
 - (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractor's negotiated unit price.

15. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

Appendix A

Substantive Conversation Guidelines

The substantive conversation is critical to all bidders' demonstration of good faith effort to meet the DBE goal prior to bid opening. Relationship building between primes and subcontractors is crucial to DBE goal attainment. Responsible bidders seek to build rapport with potential DBE subcontractors to understand capacity, areas of expertise, and assess contracting feasibility. Bidders who compete for WisDOT contracts are specialty contractors responding to a growing and changing contract environment. Just as these specialists are responsible for care of the roads, they are likewise responsible for contributing to the health of the industry. The substantive conversation drives collaboration that will build industry health and capacity. The following is intended to provide guidance for such discussions but is not an exhaustive list. Contractors are encouraged to incorporate their existing strategies for cultivating business relationships as well.

Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released 5 weeks prior to each Let)

- Determine DBE subcontractor's interest in quoting
- If response indicates inexperience with quoting- offer support/assistance to the DBE in understanding the industry including fundamentals a subcontractor needs to know, required reading and/or resources.
- Assess their interest and experience in the road construction industry by asking questions such as:
 1. Have you competed for other WisDOT contracts? Ratio of competed/to wins
 2. Have you performed on any transportation industry contracts (locally or with other states)?
 3. What the largest contract you've completed?
 4. Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
 5. Does this project fit into your schedule? Are you working on any contracts now?
 6. Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
 7. What region do you work in? Home base?
 8. Which line items are you considering?
 9. Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
 10. Do you understand where your work fits in the project schedule, project phases?

Following Bid Opening- this discussion can happen at any time

1. After reviewing their quote, note the following in your discussion:
 - Does the quote look complete? Irregular?
 - Are there errors in the quote? Are items very high or very low?
 - In general, does the quote look competitive?
2. Questions and Advice for the bidder to share with the potential DBE subcontractor:
 - What line items would typically be in a competitive quote for a subcontractor of their specialty?
 - How many employees and what is their role/experience/expertise in your firm?
 - Do you have resources for labor (union member, family-based, community-resourced) and capital (banking relationship, bond agent, CPA)?
 - Where have you worked: cities, states, government, commercial, residential/private sector, etc. Explain similarities or differences.
 - Refer them to reliable, trusted, industry resources that can educate or connect them to relevant resources, education/certification resources, more appropriate contract opportunities.
 - Discussion about prime contract and subcontract liability, critical path items, contract quantities, schedule risks, and potential profit/loss (for upcoming known projects or in general).
 - Discussion of bonding, insurance, and overall business risk considerations.

APPENDIX B
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFESAMPLE MEMORANDUM

TO: DBE FIRMS
FROM: POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT: **REQUEST FOR DBE QUOTES**
LET DATE & TIME
DATE: MONTH DAY YEAR
CC: DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation **Month- date -year** Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at <http://roadwaystandards.dot.wi.gov/hcci/>

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by **time deadline** the prior to the letting date. **Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.** We prefer quotes be sent via SBN but **prime's alternatives** are acceptable. Our office hours are **include hours and days**.

Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at **contact number**.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at <http://roadwaystandards.dot.wi.gov/hcci/>
All questions should be directed to:

Project Manager, John Doe, Phone:
(000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2
This sample is provided as a guide not a requirement
 REQUEST FOR QUOTE

Prime's Name: _____
Letting Date: _____
Project ID: _____

Please check all that apply

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person:

DBE Contractor Contact Person:

Phone: _____

Phone: _____

Fax: _____

Fax: _____

Email: _____

Email: _____

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clearing and Grubbing	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

Appendix C

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 later completion.
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. **DBE firms can:**

1. View and reply to sub-quote requests from primes:
 - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
 - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
 - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
 - c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
 - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
 - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
 - b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
 - c. Add attachments to a sub-quote.
 - d. Add unsolicited work items to sub-quotes that you are responding to.
5. Easy Access to Valuable Information
 - a. Receive a confirmation that your sub-quote was opened by a prime.
 - b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
 - c. View important notices and publications from DOT targeted to small and disadvantaged businesses.
6. Accessing Small Business Network for WisDOT contracting opportunities
 - a. If you are a contractor not yet subscribing to the Bid Express service, go to www.bidx.com and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
 - b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-458

APPENDIX D

Good Faith Effort Evaluation Measures *by categories referenced in DBE regulations*

Bidders must demonstrate that they took all necessary and reasonable steps to achieve the assigned DBE contract goal. For each contract, all bidders must submit documentation indicating the goal has been met or if falling short of meeting the assigned goal, must request a DBE Goal Waiver and document all efforts employed to secure DBE subcontractor participation on Form DT1202.

DBE staff analyze the bidder's documented good faith efforts to determine if action taken was sufficient to meet the goal. Sufficiency is measured contract-by-contract. WisDOT evaluates active and aggressive efforts, quality, quantity, scope, intensity, and appropriateness of the bidder's efforts as a scale of the principles of Good Faith outlined in 49 CFR Part 26, Appendix A. Additional emphasis is placed on the bidder's demonstration of timely submission of documentation and communication with DBE subcontractors, and business development initiatives undertaken to support DBE firm growth.

The following is a sample of good faith effort activities that are rated according to the accompanying rubric. Contractors are encouraged to identify additional activities that align with their business type(s).

- Personal, tailored solicitation to firms that specialize in work types planned or desired for subcontracting
- Follow up to initial solicitation via email or phone
- Substantive conversation including topics such as contract liability, critical path work items, schedule risks, and potential profit/loss
- SBN utilization including posting quotes
- Review and response to DBE quotes including provision of information about plans, specifications, and requirements as applicable
- Documentation requesting subcontractors support DBE goal by solicitation and inclusion of DBE subcontractor quotes
- Responsive and timely submission of organized documentation
- Analysis of number of DBE firms who do work types that you typically subcontract
- Analysis of number of DBE firms who reside in geographical areas where prime seeks work
- Analysis of firms who express interest in bidding/quoting including the number of firms who declined your solicitation
- Reference check of DBE subcontractor work or training (documentation of questions and response required)
- Number of different efforts undertaken to meet the assigned DBE goal as documented in accompanying Form DT1202
- Submission of all DBE quotes received matched with a variety of work to be performed by DBEs
- Number and names of DBE firms provided written advice, or referral to industry-specific business development resources
- Overall pattern of DBE utilization on all WisDOT contracts which may include contracting with municipalities
- Documentation of resources expended to meet assigned DBE goal (#of hours, staff titles, average pay rate, actions taken)
- Analysis of subcontractable work items to be completed by prime beyond prime contractor's 30%
- Risk analysis of work items that are typically in tied quotes that could be unbundled
- List of contract work items in smallest economically feasible units, identifying schedule impact
- Submission of a Gap Analysis identifying DBE skillset and/or industry needs
- Staff training in EEO and Civil Rights laws as documented in training logs
- Written Capacity Assessment completed with DBE firm documenting its ability to perform the work quoted
- DBE engagement efforts beyond simple solicitation that include a substantive discussion, initiated as early in the acquisition process as possible (*points added for each day prior to letting*)
- Outreach and marketing efforts with minority, women, and veteran-focused organizations at least 10 days prior to bid opening
- Active involvement in WisDOT's Business Development Program, TrANS training, facilitated networking efforts, workshops
- Customized teaching/training efforts for future opportunities with DBE subcontractor, contract specific and/or annually
- Introduction and reference provided for DBE subcontractor to a prime who has not previously contracted with the DBE firm
- Prime utilization of a DBE subcontractor the prime has not contracted with previously
- Written referral/recommendation to bond/insurance agents, manufacturer, supplier
- Documented efforts fostering DBE participation through administrative and/or technical assistance
- Evidence of negotiation with the DBE firm about current and future Let opportunities
- Recommendation of local and state services that support small business and access to opportunity: DOA, SBA, WEDC, WPI, etc.
- Advice on bonding, lines of credit, or insurance as required to complete the items quoted and contract requirements

GFE EVALUATION RUBRIC – PHASE 1

	Active & Aggressive Category	Quality Category	Quantity Category	Scope & Intensity Category	Timing Category	Business Develop't Efforts	Total=
Solicitation Documentation							
Selected Work Items Documentation							
Documentation of Project Information provided to Interested DBEs							
Documentation of Negotiation with Interested DBEs							
Documentation of Sound Reason for Rejecting DBEs							
Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials							
Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support							
Documentation of other GFE activities							
Overall Total=							

GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review

ACTIVE & AGGRESSIVE: Demonstrated through engaged and assertive activity

QUALITY: Demonstrated through essential character of conscientious and serious activity

QUANTITY: Demonstrated through a measurable number of activities

SCOPE & INTENSITY: Demonstrated through a rigorous approach to an appropriate and purposeful range of activities

TIMING: Demonstrated through engagement efforts beyond simple solicitation, initiated early in the process

BUSINESS DEVELOPMENT INITIATIVES: Demonstrated by efforts to support business growth and health of DBEs

Rating Scale

- Each qualifying activity is worth 5 points per Category
 - **Pro Forma efforts= 0-50 points**
Perfunctory effort characterized by routine or superficial activities
 - **Bona Fide= 55+ points**
Genuine effort characterized by sincere and earnest activities

GFE EVALUATION – PHASE 2 – Team Review

DBE Office completes:

- Review of quote comparisons submitted by Prime
- Bid analysis to confirm if any bid submitted met the DBE goal
- Review average of other bidders DBE goal achievement
- Team review of combined efforts documented in Phase 1 and 2 by apparent low bidder

Excerpt from Appendix A to 49 CFR Part 26:

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. 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 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. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

APPENDIX E

Good Faith Effort Best Practices

This list is not a set of requirements; it is a list of potential strategies

Primes

- Ø Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Ø Participate in speed networking and mosaic exercises as arranged by DBE office.
- Ø Host information sessions not directly associated with a bid letting.
- Ø Participate in a formal mentor protégé or joint venture with a DBE firm.
- Ø Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Ø Facilitate a small group DBE ‘training session’ clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Ø Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Ø Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- Ø DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Ø Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Ø Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list and bid tabs at a minimum.
- Ø 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.
- Ø Participate in DBE office assessment programs.
- Ø Participate on advisory and mega-project committees.
- Ø Sign up to receive the DBE Contracting Update.
- Ø Consider membership in relevant industry or contractor organizations.
- Ø 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 F

Good Faith Effort Evaluation Guidance

Appendix A of 49 CFR Part 26

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient 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, you have the responsibility 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, based on the regulations and the guidance in this Appendix.

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. Determinations should not be made using quantitative formulas.

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. (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should 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 (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

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 with their offer for the subcontract.

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. (1) 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 status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

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, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. 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 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. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

[79 FR 59600, Oct. 2, 2014]

APPENDIX G
(SAMPLE) Forms DT1506 and DT1202

**COMMITMENT TO SUBCONTRACT TO DBE
ATTACHMENT A**

CONFIRMATION OF PARTICIPATION

Project I.D.:	Proposal Number:
Letting Date:	

Name of DBE Firm Participating in this Contract:	
Name of the Prime/Subcontractor who hired the DBE Firm: <i>(list all names of tiers if more than one)</i>	
Type of Work or Type of Material Supplied:	
Total Subcontract Value:	Total DBE Credit Value:

FOR PRIME CONTRACTORS ONLY: I certify that I made arrangements with the participating DBE firm to perform the type of work listed or supply the material indicated above for the subcontract value listed above.	Prime Contractor Representative's Signature
	Prime Contractor Representative's Name (Print Name)
	Prime Contractor (Print Company Name)
	Date

FOR PARTICIPATING DBE FIRMS ONLY: I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above. FOR DBE TRUCKING FIRMS ONLY: I certify that I will utilize, for DBE credit, only trucks listed on my WisDOT approved Schedule of Owned/Leased Vehicles for DBE Credit form and I will be utilizing the number of trucks as listed below.	Participating DBE Firm Representative's Signature & Date
	Participating DBE Firm Representative's Name (Print Name)
	Participating DBE Firm (Print Company Name)
	DBE Firm's Address:

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks

**DOCUMENTATION OF GOOD FAITH EFFORT**Wisconsin Department of Transportation
DT1202.....3/2020

Project ID *****	Proposal No. *****	Letting *****
Prime Contractor *****		County *****
Person Submitting Document *****		Telephone Number *****
Address *****		Email Address *****

All bidders must undertake necessary and reasonable steps to achieve the assigned DBE contract goal per federal regulatory guidance at 49 CFR Part 26. Bidders use this form to document all efforts employed to meet the assigned goal as a record of contractor good faith efforts (GFE). Refer to ASP3 or 49 CFR Part 26 for guidance on actions that demonstrate good faith effort.

It is critical to list all efforts, attach documentation, and follow the instructions to complete this submission. Documentation of good faith effort includes copies of each DBE and non-DBE subcontractor quote submitted to the bidder for the same line items. Utilize the sample documentation logs to document and organize efforts.

Submit good faith effort documentation per ASP-3 guidelines.

Instructions: Provide a narrative description of all activities pursued to demonstrate good faith efforts, any corresponding documentation, and applicable explanation on separate pages. Include the following items, organized in the order listed below.

1.→ Solicitation Documentation:

- a.→ Purpose:** To identify all reasonable and available activities the bidder performed to solicit the interest of all certified DBEs who have the capacity and ability to perform work on the project. All solicitation efforts should begin as early as possible to ensure DBEs have ample time to respond and ask questions.
- b.→ Action:** Identify and list all activities engaged in to solicit DBEs using all reasonable and available means such as written notice and follow-up communications; substantive conversations; pre-bid meetings; networking events; market research; advertising.

2.→ Selected Work Items Documentation:

- a.→ Purpose:** To ensure that all work items are broken out into economically feasible units to facilitate DBE participation. This must occur even when you prefer to perform the work yourself.
- b.→ Action:** Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

3.→ Documentation of Project Information provided to Interested DBEs:

- a.→ Purpose:** To provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation.
- b.→ Action:** Provide DBEs access to plans, specifications, and other contract requirements. Early solicitation allows ample opportunity to provide project information, links to Let advertisements, and substantive engagement with DBEs.

4.→ Documentation of Negotiation with Interested DBEs:

a.→ Purpose: To ensure that negotiations with interested DBEs were made in good faith providing evidence as to why agreements could not be reached for DBEs to perform work.

b.→ Action: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts. A bidder using good business judgment considers a number of factors in negotiating with all subcontractors, and the firm's price and capabilities in addition to contract goals are taken 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 failing to meet the DBE goal as long as costs are reasonable. (see 49 CFR Part 26 Appendix A)

5.→ Documentation of Sound Reason for Rejecting DBEs:

a.→ Purpose: To ensure that bidders avoid rejecting DBEs as unqualified without sound reasons. Reasons for rejection must be based on thorough investigation of DBE capabilities.

b.→ Action: Provide sufficient evidence to demonstrate that DBE was rejected for sound reasons such as past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, other tangible factors.

6.→ Documentation of Assistance to Interested DBEs--Bonding, Credit, Insurance, Equipment, Supplies/Materials:

a.→ Purpose: To assist interested DBEs in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, and other assistance or services.

b.→ Action: Assist interested DBEs in obtaining bonding, lines of credit or insurance, and provide technical assistance or information related to plans, specifications, and project requirements. Assist DBEs in obtaining equipment, supplies, materials or other services related to meeting project requirements (excluding supplies or equipment the DBE purchases from the prime).

7.→ Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support:

a.→ Purpose: To effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well as participation in activities that support DBE business development.

b.→ Action: Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Return to:
 Wisconsin Department of Transportation
 DBE Program Office
 PO Box 7965
 Madison, WI 53707-7965
 DBE_Alert@dot.wi.gov

I certify that I have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, as demonstrated by my responses and as specified in Additional Special Provision 3 (ASP-3).

I certify that the information given in the Documentation of Good Faith Efforts is true and correct to the best of my knowledge and belief.

I further understand that any willful falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions, which may involve debarment and/or prosecution under applicable state (Trans 504) and Federal laws.

		(Bidder/Authorized Representative Signature)

		(Print Name)

		(Title)

Good-Faith-Effort--Sample-Documentation-Logs

The sample logs below are provided as guides rather than exhaustive list. See ASP3, Appendix A for additional examples of demonstrable good faith efforts. Attach documentation for each activity listed.

Acceptable forms of documentation include copies of solicitations sent to DBEs, notes from substantive conversations and negotiations with DBEs, copies of advertisements placed, email communications, all quotes received from DBEs and from all subcontractors who were considered alongside DBE quotes, proof of attendance at applicable networking events; flyers for events or workshops for DBEs offered by the prime, and other physical records of good faith efforts activities.

SOLICITATION LOG

Date	Activity	Name of DBE Solicited	Follow-up
4/1/2020	Sent May Let solicitation	Winterland Electric	Spoke with Mark Winterland on 4/15/20 to ask if he would quote

SELECTED WORK ITEMS SOLICITED LOG

Work Type	DBE Firm	Contact Person	Date	Contact Mode
Pavement Marking	ABC Marking	Leslie Lynch	4/1/2020	Email; phone
	#1 Marking Co.	Mark Smart	4/1/2020	Email; left VM
Electrical	Winterland Electric	Tabitha Tinker	4/3/2020	Email; left VM
	Superstar Wiring	Jose Huascar	4/3/2020	Email; phone

INFORMATION PROVIDED LOG

Request Date	DBE Firm	Information Requested & Provided	Response Date
4/1/2020	Winterland Electric	Requested info on electrical requirements; provided plan and link to specs	4/3/2020
4/21/2020	Absolute Construction	Wanted to know how and when supplies are paid for by WisDOT; referred to spec that covers stockpiling	4/21/2020

NEGOTIATIONS LOG

Date	DBE Firm	Contact Name	Work Type	Quotes Rec'd?	Considered for project?	If not selected, why?
4/12/2020	ABC Landscape	John Dean	Erosion Control	Yes	No	Cannot perform all items
4/17/2020	Wild Ferns	Sandy Lynn	Erosion Control	Yes	Yes	
4/20/2020	#1 Marking	Mark Smart	Electrical	Yes	Yes	

ASSISTANCE LOG

Date	DBE Firm	Contact Person	Assistance Provided
4/1/2020	ABC Sawing	Jackie Swiggle	Informed DBE on how to obtain bonding
4/17/2020	Supreme Construction	Winston Walters	Provided contact for wholesale supply purchase

OUTREACH & BUSINESS DEVELOPMENT LOG

Date	Agency/Organization Contacted	Contact Person	Assistance Requested
4/1/2020	Women in Construction	LaTonya Klein	Contact information for woman-owned suppliers
4/28/2020	WBIC	Sam Smith	Asked for information to provide to DBE regarding financing programs through WBIC

Official Form DT1202 can be found here: www.wisconsindot.gov/DBEcontracting

ADDITIONAL SPECIAL PROVISION 4

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

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

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

Make the following revisions to the standard specifications:

102.1 Prequalifying Bidders

Replace paragraph two with the following effective with the October 2020 letting:

- (2) Furnish a dated prequalification statement on the department's form at least 10 business days before the time set for the letting to close.

102.6 Preparing the Proposal

Replace the entire text with the following effective with the October 2020 letting:

102.6.1 General

- (1) Submit completed proposals on the department's bidding proposal described in 102.2. Submit legible information only. Write everything in ink, by typewriter, or by computer-controlled printer. Provide all dollar amounts in dollars and cents, in numerals. Attach all addenda to the submitted proposal.
- (2) Properly execute the proposal. Place the required signatures, in ink, in the space provided on the bidding proposal as indicated below:

ENTITY SUBMITTING PROPOSALREQUIRED SIGNATURE

Individual	The individual or a duly authorized agent.
Partnership	A partner or a duly authorized agent.
Joint venture	A member or a duly authorized agent of at least one of the joint venture firms.
Corporation	An authorized officer or duly authorized agent of the corporation. Also show the name of the state chartering that corporation and affix the corporate seal.
Limited liability company	A manager, a member, or a duly authorized agent.

- (3) Instead of using the schedule of items provided on the department's bidding proposal, the bidder may submit a substitute schedule with the proposal. Use a format for the substitute schedule conforming to the department's guidelines for approval of a bidder-generated schedule of items. Obtain the department's written approval before using a substitute schedule.
- (4) Provide a unit price for each bid item listed in the schedule of items. Calculate and show, in the bid amount column, the products of the respective unit prices and quantities. For a lump sum bid item, show the same price in the unit price column and in the bid amount column pertaining to that bid item. Show the total bid obtained by adding the values entered in the bid amount column for the listed bid items.
- (5) If a unit price or lump sum bid already entered in the proposal needs to be altered, cross out the entered unit price or lump sum bid with ink or typewriter and enter the new price above or below and initial it in ink.
- (6) A change that the bidder makes in the proposal is not an alteration if the bidder makes that change as directed in a specific instruction contained in an addendum.

102.6.2 Disadvantaged Business Enterprise (DBE) Commitment

- (1) Before the letting is closed, submit the following documentation for proposals with a DBE goal:
1. Commitment to subcontract to DBE on department form DT1506.
 2. Attachment A for each subcontractor listed on the DT1506.
 3. If the DBE goal is not attained, certificate of good faith efforts on department form DT1202.
- (2) Within 24 hours after the letting is closed, email all supplemental documentation for the DT1202 verifying efforts made to attain the DBE goal to DBE_Alert@dot.wi.gov.

102.7.3 Department Will Reject

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

- (1) Proposals are irregular and the department will reject and will not post them if the bidder:
 1. Does not furnish the required proposal guaranty in the proper form and amount as specified in 102.8.
 2. Does not submit a unit price for each bid item listed, except for lump sum bid items where the bidder may show the price in the bid amount column for that bid item.
 3. Includes conditions or qualifications not provided for in the department-supplied bidding proposal.
 4. Submits a bid on a bidding proposal issued to a different bidder without obtaining departmental authorization to do so.
 5. Submits a bid that contains unauthorized revisions in the name of the party to whom the bidding proposal was issued.
 6. Submits a schedule of items with illegibly printed bid item numbers, descriptions, or unit prices.
 7. Submits a schedule of items for the wrong contract.
 8. Submits a bidder-generated schedule of items with an incorrect bid item number and incorrect description for a single bid item.
 9. Omits a bid item or bid items on a bidder-generated schedule of items.
 10. Submits a materially unbalanced bid.
 11. Does not sign the proposal.
 12. Does not submit the DBE forms and required supplemental documentation of the good faith efforts as specified in 102.6.2.

102.12 Public Opening of Proposals

Replace paragraph one with the following effective with the October 2020 letting:

- (1) The letting will close at the time and place indicated in the notice to contractors. The department will publicly open and post the total bid for each proposal on the Bid Express web site beginning at noon on the day after the letting is closed except as specified in 102.7.3 and 102.8. If a proposal has no total bid shown, the department will not post the bid. After verification for accuracy under 103.1, the department will post bid totals on the HCCI web site.

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

103.1 Consideration of Proposals

Replace paragraph one with the following effective with the October 2020 letting:

- (1) Following the public opening of the proposals received, the department will compare them based on the summation of the products of the quantities of work listed and the contract unit prices offered. In case of discrepancies, errors, or omissions, the department will make corrections as specified in 102.7.1. In awarding contracts, the department, in addition to considering the amounts stated in the proposals, may consider one or more of the following:
 1. The responsibility of the various bidders as determined from a study of the data required under 102.1.
 2. The responsiveness of the bid as determined under 102.6.
 3. Information from other investigations that the department may make.

107.17.1 General

Replace paragraph four with the following effective with the November 2020 letting:

- (4) Comply with the railroad's rules and regulations regarding operations on or near the railroad right-of-way as follows:
 - When working on the railroad right-of-way.
 - When working within 25 feet of the track centerline or adjacent facilities, including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities.

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 pay the railroad directly. Notify the railroad's representative, specified in the project special provisions, in writing at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

109.6.3.3 Retainage

Delete paragraph two effective with the December 2020 letting:

450.2.1 Acronyms and Definitions

Add the following definitions to 450.2.1(2) effective with the November 2020 letting:

Butt Joint	A transverse joint between existing and newly paved surfaces, formed by milling or sawing a vertical notch into the existing surface and then paving against the notch.
Echelon Paving	Paving two or more adjacent lanes with adjacent pavers offset from each other by 200 feet or less.
Notched Wedge Joint	A longitudinal joint consisting of a wedge placed at the edge of the initially paved lane with an overlapping wedge placed on the subsequent lane.
Tandem Paving	Paving two or more adjacent lanes with adjacent pavers offset from each other by more than 200 feet.
Vertical Joint	A longitudinal joint between 2 paved lanes with a vertical or nearly vertical interface between the adjacent mats.

450.3.2.8 Jointing

Replace paragraph two with the following with the November 2020 letting:

- (2) Where placing against existing HMA pavement, saw or mill the existing mat to form a full-depth joint.

Replace paragraphs five and six with the following effective with the November 2020 letting:

- (5) At the prepave meeting, submit documentation to the engineer that includes the brand name and model of each extruding and compacting device proposed for notched wedge joint construction. Alternatively, submit pictures of fabricated wedging and compacting devices. Do not use devices before engineer approval.
- (6) For notched wedge joints, construct and shape the wedge for each layer using the engineer-approved extruding device and compacting device that will provide a uniform slope and will not restrict the main screed. Compact the wedge with a weighted roller wheel or vibratory plate compactor the same width as the wedge. Clean and apply tack coat to the wedge surface and both notches before placing the adjacent lane.
- (7) For butt and vertical joints, clean and apply tack coat to promote bonding and seal the joint.
- (8) If paving in echelon, the contractor may use a vertical or notched wedge joint. Joints paved in echelon need not be tack coated.

460.2.2.3 Aggregate Gradation Master Range

Replace table 460-1 with the following effective with the November 2020 letting:

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

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

^[1] 14.5 for LT and MT mixes.

^[2] 15.5 for LT and MT mixes.

522.2 Materials

Replace paragraph three with the following effective with the January 2021 letting:

- (3) Manufacture precast reinforced concrete pipe, cattle pass, and apron endwalls in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO standard materials requirements except as follows:
- The contractor may use cement conforming to 501.2.1 or may substitute for portland cement at the time of batching conforming to 501.2.6 for fly ash, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.

532.2.1 General

Replace paragraph one with the following effective with the November 2020 letting:

- (1) Furnish structural steel conforming to ASTM as follows:
- <= 1/2 inch thick structural tube and pipe ASTM A500 grade C
 - > 1/2 inch thick structural tube and pipe API 5L PSL 2 grade 46 or ASTM 1085
 - Tapered vertical supports ASTM A595 grade A or ASTM A572 grade 55
 - Multi-sided or greater than 26-inch diameter round tapered poles ASTM A572 grade 65
 - Structural angles and plates ASTM A709 grade 36

532.3.8 Acceptance and Inspection

Add the following new subsection effective with the November 2020 letting:

532.3.8 Acceptance and Inspection

- (1) Demonstrate to the engineer that electrical and mechanical systems for each high mast tower installation are fully operational. The department will not accept an installation until the engineer is satisfied that it functions properly.
- (2) Inspect completed "S" or "L" designated structures before opening to public traffic conforming to the BOS structure inspection manual part 4 for sign, signal, and high mast towers available at:

<https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/strct/inspection-manual.aspx>

Ensure that a department-certified active team leader for sign/signal inspections, listed on the department's highway structures information system (HSIS) website, performs inspections. Conform to the following:

- Notify the engineer at least 5 business days before inspection.
- Ensure that the team leader performing inspections submits the signed inspection reports and provides punch list items as maintenance items in the inspection report to the engineer within one business day after completing each inspection. Submit that signed final inspection report to the engineer and HSIS at:

<https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/strct/hsi.aspx>

- Notify the engineer and region ancillary structure project manager upon completion of the punch list items.

550.2.1 Steel Piles and Pile Shells

Replace paragraph three with the following effective with the November 2020 letting:

- (3) For steel pipe sections and steel pile shells for cast-in-place concrete piles, use ASTM A252 grade 3 steel.

608.2.1 Pipe

Replace paragraph three with the following effective with the January 2021 letting:

- (3) Manufacture precast reinforced concrete pipe for storm sewer in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO materials requirements for the class of precast concrete pipe specified except as follows:
 - The contractor may use cement conforming to 501.2.1 or may substitute for portland cement at the time of batching conforming to 501.2.6 for fly ash, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.

611.2 Materials

Replace paragraph three with the following effective with the January 2021 letting:

- (3) For precast structures conform to AASHTO M199 for circular structures and ASTM C913 for square and rectangular structures. Manufacture in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO materials requirements for the structure specified except as follows:
 - Use concrete with 4700 pounds or more cementitious material per cubic yard.
 - The contractor may use cement conforming to 501.2.1 or may substitute for portland cement at the time of batching conforming to 501.2.6 for fly ash, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.
 - For wet cast use air-entrained concrete with 7.0 percent +/- 1.5 percent air content.

614.3.2.1 Installing Posts

Replace paragraphs four and five with the following effective with the December 2020 letting:

- (4) For bid items 614.0220, 0230, and 2500; do not trim posts before installation and mark one face of each post as follows:

- Draw an embedment depth line.
- Above the embedment line, write the post length.
- Posts 3 through 8 of bid item 614.0220 do not require marking.

Install posts with the markings on the roadway side. Ensure the markings remain on the posts until guardrail final acceptance.

- (5) Ensure that posts are at least the minimum length and minimum embedment the plans show before cutting post tops to the finished elevation. After installation, the engineer may direct the contractor to remove and re-install up to 5% of the posts to verify they were placed to the required plan depth. If a post is embedded less than the required plan depth, the engineer may direct additional sampling. Re-install sampled posts at the locations and to the depths the plans show. Replace posts and other components that are damaged during sampling.
- (6) Provide offset block-mounted reflectors as the plans show.

650.3.7 Structure Layout Staking

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

- (1) Set construction stakes or marks on a line offset from the structure centerline or on a reference line, whichever is appropriate, for both roadway and substructure units. Establish the plan horizontal and vertical positions to the required accuracy. Also, set and maintain stakes and marks as necessary to support the method of operations. Locate stakes and marks to within 0.02 feet of the true horizontal position, and establish the grade elevation to within 0.01 feet of true vertical position.
- (2) For girder bridges, the department will compute deck grades with contractor-supplied girder elevation data.
- (3) For slab span bridges, the department will compute slab grades using contractor-supplied falsework settlement and deflection data at tenth points along slab edges, the crown, and reference line locations. Before releasing falsework, survey top-of-slab elevations at the centerline of the abutments and at the 5/10th point along slab edges, the crown, and reference line locations to verify the camber.

710.2 Small Quantities

Replace paragraph one with the following effective with the November 2020 letting:

- (1) For contracts with only small quantities of material subject to testing, as defined under specific contract QMP provisions, modify the requirements of 710 as follows:
1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
 2. The engineer may accept aggregate based on documented previous testing and non-random start-up gradation testing as allowed in 710.5.6.1.

710.4 Concrete Mixes

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

- (2) At least 3 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:
1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, and air content.
 2. For cementitious materials and admixtures: type, brand, and source.
 3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include proposed combined gradation limits and target individual gradations, including P200 limits..

710.5.6 Aggregate Testing

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

710.5.6.1 General

- (1) Test aggregate gradations during concrete production. The department will accept non-random start-up testing during concrete production for the following:
 - Small quantities, as defined in 715.1.1.2, of class I concrete placed under 715.
 - Less than 400 cubic yards of class II ancillary concrete placed under the contract.

710.5.6.2 Gradation Testing During Concrete Production

- (1) Test aggregate gradation during concrete production batching either at a central mix batch plant or at a ready mix plant. The contractor's concrete production QC tests can be used for the same mix design on multiple contracts.
- (2) Conform to combined gradation limits either calculated using department form WS3012 or custom limits approved as a part of the contractor's quality control plan. For class II concrete, also conform to the additional combined gradation requirements specified for class I concrete in 715.2.2.
- (3) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- (4) Contractor QC testing frequency is based on the cumulative plant production for each mix design across multiple WisDOT contracts.

TABLE 710-1 PLANT PRODUCTION QC GRADATION TESTING FREQUENCY

Daily Plant Production Rate for WisDOT Work	Minimum QC Frequency per Stockpile
250 cubic yards or less	one test per cumulative total of 250 cubic yards
more than 250 through 1000 cubic yards	one test per day
more than 1000 cubic yards	two tests per day

- (5) Department QV testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.

TABLE 710-2 CONTRACT PLACEMENT QV GRADATION TESTING FREQUENCY

Anticipated Daily Placement Rate Each WisDOT Contract	Minimum QV Frequency per Stockpile
less than or equal to 1000 cubic yards	one test per 5 days of placement
more than 1000 cubic yards	two tests per 5 days of placement

715.2.2 Combined Aggregate Gradation

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

- (1) Ensure that the combined aggregate gradation conforms to the following, expressed as weight percentages of the total aggregate:
 1. One hundred percent passes the 2-inch sieve.
 2. For mixes containing size No. 2 stone, the percent passing the 1-inch sieve is less than or equal to 89. The engineer may waive this requirement if the clear spacing between reinforcing bars is less than 2 inches.
 3. The percent passing the No. 4 sieve is less than or equal to 42, except if the coarse aggregate is completely composed of crushed stone, up to 47 percent may pass the No. 4 sieve. For pavement, coarse aggregate may be completely composed of crushed concrete, in which case up to 47 percent may pass the No. 4 sieve.
 4. The percent passing the No. 200 sieve is less than or equal to 2.3 percent.

716.2.1 Class II Concrete

Replace paragraphs four through six with the following effective with the November 2020 letting:

- (4) Provide concrete with a 28-day compressive strength that equals or exceeds the following:
 - If the contract specifies f'_c , then f'_c .
 - If the contract does not specify f'_c , then 3000 psi.

ERRATA

101.3 Definitions

Adopt AASHTO change order definition.

Change order A written order to the contractor detailing changes to the specified work quantities or modifications within the scope of the original contract..

Delete existing contract change order, contract modification, and contract revision definitions.

460.2.7(1) HMA Mixture Design

Correct table 460-2 errata by eliminating plasticity index requirements for LT, MT, and HT mixes.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	35
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103 as modified in CMM 860.2.7) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821 as modified in CMM 860.7.2) (one face/2 face, % by count)	65/___	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40 ^[1]	43 ^[1]	45	45
Sand Equivalency (AASHTO T176, min)	40	40 ^[2]	45	50
Clay Lumps and Friable Particle in Aggregate (AASHTO T112)	<= 1%	<= 1%	<= 1%	<= 1%
Plasticity Index of Material Added to Mix Design as Mineral Filler (AASHTO T89/90)				<= 4
Gyratory Compaction				
Gyrations for Nini	6	7	8	7
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	100
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.5 (95.5)
% Gmm Nini	<= 91.5 ^[3]	<= 89.0 ^[3]	<= 89.0	___
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	<= 98.0
Dust to Binder Ratio ^[4] (% passing 0.075/Pbe)	0.6 - 1.2 ^[5]	0.6 - 1.2 ^[5]	0.6 - 1.2 ^[5]	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 ^[6] ^[8]	65 - 75 ^[6] ^[7] ^[9]	65 - 75 ^[6] ^[7] ^[9]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283) ^[10] ^[11]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.80 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	___	___	___	<= 0.30
Minimum Effective Asphalt Content, Pbe (%)	___	___	___	5.5

^[1] For No 6 (4.75 mm) nominal maximum size mixes, the specified fine aggregate angularity is 43 for LT and 45 MT mixes.

^[2] For No 6 (4.75 mm) nominal maximum size mixes, the specified sand equivalency is 43 for MT mixes.

^[3] The percent maximum density at initial compaction is only a guideline.

^[4] For a gradation that passes below the boundaries of the caution zone (ref. AASHTO M323), the dust to binder ratio limits are 0.6 - 1.6.

^[5] For No 6 (4.75 mm) nominal maximum size mixes, the specified dust to binder ratio limits are 1.0 - 2.0 for LT mixes and 1.5 - 2.0 for MT and HT mixes.

^[6] For No. 6 (4.75mm) nominal maximum size mixes, the specified VFB is 67 - 79 percent for LT mixes and 66 - 77 percent for MT and HT mixes.

^[7] For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

^[8] For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

^[9] For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

^[10] WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

^[11] Run TSR at asphalt content corresponding to 3.0% air void regressed design, or 4.5% air void design for SMA, using distilled water for testing.

513.2.1(2) General

Correct errata by changing the CMM reference from 875.2 to 875.4.

- (2) Conform to the department's certification method of acceptance, as defined in CMM 875.4, for railing and railing components. Furnish a certificate of compliance for miscellaneous hardware.
-

531.1(1) Description

Correct errata by adding structural steel sign supports constructed under 635.

- (1) This section describes constructing drilled shaft foundations for the following:
- Overhead sign structures constructed under 532.
 - High mast light towers constructed under 532.
 - Structural steel sign supports constructed under 635.
 - Camera poles constructed under 677.
-

635.3.1(1) Structural Steel Sign Supports

Correct errata by adding "type NS" concrete footings.

- (1) Locate and erect the supports as specified for placement and orientation in 637.3.3.2. Construct Type NS concrete footings conforming to 531.
-

654.5(2) Payment

Correct errata by changing excavating to drilling.

- (2) Payment for the Bases bid items is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor templates, rods, nuts, and washers; for bar steel reinforcement; and for drilling and backfilling.
-

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.

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

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

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

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

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

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the 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 any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Non-discrimination Provisions

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

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

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

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

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

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

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

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

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

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director
Office of Federal Contract Compliance Programs
Ruess Federal Plaza
310 W. Wisconsin Ave., Suite 1115
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective November 2020 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this "Buy America" provision.

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

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

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

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) Agreement Clauses. "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

**WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT**

**SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS
FOR PROJECTS WITH FEDERAL AID**

I. PREVAILING WAGE RATES

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

II. COVERAGE OF TRUCK DRIVERS

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. https://www.dol.gov/whd/FOH/FOH_Ch15.pdf
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work."
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:

<https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf>

<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx>

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

- a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. RESOURCES

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20210010 07/09/2021

Superseded General Decision Number: WI20200010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021
1	03/12/2021
2	03/19/2021
3	04/09/2021
4	05/14/2021
5	07/09/2021

BRWI0001-002 06/01/2020

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPPEALEAU, AND
VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.31	24.7 7

BRWI0002-002 06/01/2020		

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 42.77	23.47

BRWI0002-005 06/01/2020		

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA,
CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC,
FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE,
LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE,
OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK,
SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA,
WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 36.68	23.40

BRWI0003-002 06/01/2020		

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40

BRWI0004-002 06/01/2020		

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.90	25.53

BRWI0006-002 06/01/2020		

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,

ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.60	23.48

BRWI0007-002 06/01/2020

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.07	24.72

BRWI0008-002 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.75	24.32

BRWI0011-002 06/01/2020

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40

BRWI0019-002 06/01/2020

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 34.86	25.22

BRWI0034-002 06/01/2020

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.36	24.43

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 36.85	18.39

 CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER.....	\$ 33.56	18.00
MILLWRIGHT.....	\$ 35.08	18.35
PILEDRIVER.....	\$ 34.12	18.00

 CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter.....	\$ 33.56	18.00
Millwright.....	\$ 35.08	18.35
Pile Driver.....	\$ 34.12	18.00

 CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.78	22.11

CARP0361-004 05/01/2018		

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 36.15	20.43

CARP2337-001 06/01/2016		

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A.....	\$ 31.03	22.69
Zone B.....	\$ 31.03	22.69

ELEC0014-002 06/14/2020		

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK
(except Maryville, Colby, Unity, Sherman, Fremont, Lynn &
Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA
CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST
CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON, AND WASHBURN
COUNTIES

	Rates	Fringes
Electricians:.....	\$ 35.98	20.98

ELEC0014-007 07/05/2020		

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 27.75	15.14

Low voltage construction, installation, maintenance and
removal of teledata facilities (voice, data, and video)

including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2020

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 41.62	30%+12.70

ELEC0158-002 06/01/2020

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee 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

	Rates	Fringes
ELECTRICIAN.....	\$ 34.77	29.75%+10.26

ELEC0159-003 08/02/2020

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 41.86	22.67

ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
--	-------	---------

Electricians:

Electrical contracts over \$180,000.....	\$ 33.94	21.80
Electrical contracts under \$180,000.....	\$ 31.75	21.73

ELEC0242-005 05/31/2020

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 39.77	28.11

ELEC0388-002 06/01/2020

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:.....	\$ 34.85	26%+11.20

ELEC0430-002 02/02/2021

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 41.859	22.871

* ELEC0494-005 06/01/2021

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 44.39	25.67

* ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 37.91	22.74

 * ELEC0494-013 06/01/2021

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 22.39	18.80
Technician.....	\$ 32.49	20.26

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillon, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

 ELEC0577-003 06/01/2020

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	\$ 34.23	29.50%+10.00

* ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,
RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 39.00	25.95%+11.17

ELEC0953-001 06/02/2019

	Rates	Fringes
Line Construction:		
(1) Lineman.....	\$ 47.53	21.43
(2) Heavy Equipment Operator.....	\$ 42.78	19.80
(3) Equipment Operator.....	\$ 38.02	18.40
(4) Heavy Groundman Driver..	\$ 33.27	16.88
(5) Light Groundman Driver..	\$ 30.89	16.11
(6) Groundsman.....	\$ 26.14	14.60

ENGI0139-005 06/01/2020

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 41.62	23.80
Group 2.....	\$ 41.12	23.80
Group 3.....	\$ 40.62	23.80
Group 4.....	\$ 40.36	23.80
Group 5.....	\$ 40.07	23.80
Group 6.....	\$ 34.17	23.80

HAZARDOUS WASTE PREMIUMS:

EPA Level ""A"" protection - \$3.00 per hour
EPA Level ""B"" protection - \$2.00 per hour
EPA Level ""C"" protection - \$1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without
attachments with a lifting capacity of over 100 tons; or
cranes, tower cranes, and derricks with boom, leads and/or
jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without
attachments with a lifting capacity of 100 tons or less; or

cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender, day light machine

GROUP 6: Off-road material hauler with or without ejector.

* IRON0008-002 06/01/2021

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC,
MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO
COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 38.77	28.15

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor
Day, Thanksgiving Day & Christmas Day.

* IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3),
WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor
Day, Thanksgiving Day & Christmas Day.

* IRON0383-001 06/06/2021

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST,
GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA,
JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON,
MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern
area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA,
WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.75	27.06

IRON0498-005 06/01/2019

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 40.25	40.53

IRON0512-008 06/03/2019		

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,
PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.60	29.40

IRON0512-021 05/03/2021		

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 35.09	31.80

LAB00113-002 06/01/2020		

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 30.05	22.26
Group 2.....	\$ 30.20	22.26
Group 3.....	\$ 30.40	22.26
Group 4.....	\$ 30.55	22.26
Group 5.....	\$ 30.70	22.26
Group 6.....	\$ 26.54	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;
Demolition and Wrecking Laborer; Guard Rail, Fence, and
Bridge Builder; Landscaper; Multiplate Culvert Assembler;
Stone Handler; Bituminous Worker (Shoveler, Loader, and
Utility Man); Batch Truck Dumper or Cement Handler;
Bituminous Worker (Dumper, Ironer, Smoother, and Tamper);
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler

(Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LAB00113-003 06/01/2020

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 29.30	22.26
Group 2.....	\$ 29.40	22.26
Group 3.....	\$ 29.45	22.26
Group 4.....	\$ 29.65	22.26
Group 5.....	\$ 29.50	22.26
Group 6.....	\$ 26.39	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LAB00113-011 06/01/2020

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 29.11	22.26
Group 2.....	\$ 29.26	22.26
Group 3.....	\$ 29.46	22.26
Group 4.....	\$ 29.43	22.26
Group 5.....	\$ 29.76	22.26
Group 6.....	\$ 26.25	22.26

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LAB00140-002 06/01/2020

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,

RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST.
CROIX, TAYLOR, TREMPLEAU, VERNON, VILLAS, WALWORTH, WASHBURN,
WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 33.72	17.95
Group 2.....	\$ 33.82	17.95
Group 3.....	\$ 33.87	17.95
Group 4.....	\$ 34.07	17.95
Group 5.....	\$ 33.92	17.95
Group 6.....	\$ 30.35	17.95

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;
Demolition and Wrecking Laborer; Guard Rail, Fence, and
Bridge Builder; Landscaper; Multiplate Culvert Assembler;
Stone Handler; Bituminous Worker (Shoveler, Loader, and
Utility Man); Batch Truck Dumper or Cement Handler;
Bituminous Worker (Dumper, Ironer, Smoother and Tamper);
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler
(Pavement); Vibrator or Tamper Operator (Mechanical Hand
Operated); Chain Saw Operator, Demolition Burning Torch
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter
(Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LAB00464-003 06/01/2020

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.00	17.95
Group 2.....	\$ 34.10	17.95
Group 3.....	\$ 34.15	17.95

Group 4.....	\$ 34.35	17.95
Group 5.....	\$ 34.20	17.95
Group 6.....	\$ 30.35	17.95

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller.....	\$ 30.33	17.27
Spray, Sandblast, Steel....	\$ 30.93	17.27
Repaint:		
Brush, Roller.....	\$ 28.83	17.27
Spray, Sandblast, Steel....	\$ 29.43	17.27

PAIN0108-002 06/01/2019

RACINE COUNTY

	Rates	Fringes
--	-------	---------

Painters:

Brush, Roller.....	\$ 36.08	20.36
Spray & Sandblast.....	\$ 37.08	20.36

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK,
SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER.....	\$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEAU, AND
VERNON COUNTIES

	Rates	Fringes
PAINTER.....	\$ 22.03	12.45

PAIN0781-002 06/01/2019

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 33.30	23.86
Brush.....	\$ 32.95	23.86
Spray & Sandblast.....	\$ 33.70	23.86

PAIN0802-002 06/01/2019

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,
ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 30.93	18.44

PREMIUM PAY:
Structural Steel, Spray, Bridges = \$1.00 additional per
hour.

PAIN0802-003 06/01/2019

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN
LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC,
MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA,
OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS,
WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER.....	\$ 30.93	18.58

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush.....	\$ 33.74	18.95
Spray.....	\$ 34.74	18.95
Structural Steel.....	\$ 33.89	18.95

PAIN1011-002 06/02/2019

FLORENCE COUNTY

	Rates	Fringes
Painters:.....	\$ 25.76	13.33

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1.....	\$ 39.46	17.17
Area 2 (BAC).....	\$ 35.07	19.75
Area 3.....	\$ 35.61	19.40
Area 4.....	\$ 34.70	20.51
Area 5.....	\$ 36.27	18.73
Area 6.....	\$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN
COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET,

CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE,
FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK,
PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR,
VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD
COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA
CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND
VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK
COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

* TEAM0039-001 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	\$ 32.72	23.81

WELL DRILLER.....	\$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted

because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

August 2018

NOTICE TO BIDDERS WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least \$1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.



Proposal Schedule of Items

Page 1 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0110 Clearing	3,938.000 SY	_____.	_____.
0004	201.0120 Clearing	27.000 ID	_____.	_____.
0006	201.0210 Grubbing	3,807.000 SY	_____.	_____.
0008	201.0220 Grubbing	15.000 ID	_____.	_____.
0010	203.0200 Removing Old Structure (station) 01. 20+30	LS	LUMP SUM	_____.
0012	203.0200 Removing Old Structure (station) 02. 20+25	LS	LUMP SUM	_____.
0014	203.0210.S Abatement of Asbestos Containing Material (structure) 01. B-40-0280	LS	LUMP SUM	_____.
0016	203.0210.S Abatement of Asbestos Containing Material (structure) 02. B-40-0281	LS	LUMP SUM	_____.
0018	204.0100 Removing Concrete Pavement	1,908.000 SY	_____.	_____.
0020	204.0120 Removing Asphaltic Surface Milling	280,494.000 SY	_____.	_____.
0022	204.0150 Removing Curb & Gutter	17,947.000 LF	_____.	_____.
0024	204.0155 Removing Concrete Sidewalk	378.000 SY	_____.	_____.
0026	204.0157 Removing Concrete Barrier	4,336.000 LF	_____.	_____.
0028	204.0165 Removing Guardrail	2,585.000 LF	_____.	_____.
0030	204.0170 Removing Fence	714.000 LF	_____.	_____.
0032	204.0175 Removing Concrete Slope Paving	792.000 SY	_____.	_____.



Proposal Schedule of Items

Page 2 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	204.0195 Removing Concrete Bases	6.000 EACH	_____.	_____.
0036	204.0220 Removing Inlets	38.000 EACH	_____.	_____.
0038	204.0245 Removing Storm Sewer (size) 01. 12-Inch	122.000 LF	_____.	_____.
0040	204.0245 Removing Storm Sewer (size) 02. 15-Inch	21.000 LF	_____.	_____.
0042	204.0245 Removing Storm Sewer (size) 03. 18-Inch	32.000 LF	_____.	_____.
0044	204.0245 Removing Storm Sewer (size) 04. 21-Inch	4.000 LF	_____.	_____.
0046	204.9060.S Removing (item description) 01. Sign Bridge Lighting Units	15.000 EACH	_____.	_____.
0048	204.9105.S Removing (item description) 01. Traffic Signals STH 145 & Fond du Lac Avenue	LS	LUMP SUM	_____.
0050	204.9105.S Removing (item description) 02. Loop Detector Wire & Lead-In Cable STH 145 & Fond du Lac Avenue	LS	LUMP SUM	_____.
0052	204.9105.S Removing (item description) 03. Removal of Underdeck Hardware	LS	LUMP SUM	_____.
0054	205.0100 Excavation Common	3,813.000 CY	_____.	_____.
0056	206.1000 Excavation for Structures Bridges (structure) 01. B-40-0280	LS	LUMP SUM	_____.
0058	206.1000 Excavation for Structures Bridges (structure) 02. B-40-0281	LS	LUMP SUM	_____.
0060	208.0100 Borrow	7.000 CY	_____.	_____.



Proposal Schedule of Items

Page 3 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	210.1500 Backfill Structure Type A	346.000 TON	_____.	_____.
0064	213.0100 Finishing Roadway (project) 01. 1360-11-70	1.000 EACH	_____.	_____.
0066	213.0100 Finishing Roadway (project) 02. 1360-15-70	1.000 EACH	_____.	_____.
0068	213.0100 Finishing Roadway (project) 03. 1360-16-70	1.000 EACH	_____.	_____.
0070	213.0100 Finishing Roadway (project) 04. 1360-17-70	1.000 EACH	_____.	_____.
0072	305.0110 Base Aggregate Dense 3/4-Inch	157.000 TON	_____.	_____.
0074	305.0120 Base Aggregate Dense 1 1/4-Inch	3,237.000 TON	_____.	_____.
0076	310.0110 Base Aggregate Open-Graded	644.000 TON	_____.	_____.
0078	320.0155 Concrete Base 9-Inch	137.000 SY	_____.	_____.
0080	390.0303 Base Patching Concrete	8,045.000 SY	_____.	_____.
0082	390.0403 Base Patching Concrete Shes	943.000 SY	_____.	_____.
0084	415.0090 Concrete Pavement 9-Inch	1,465.000 SY	_____.	_____.
0086	415.0410 Concrete Pavement Approach Slab	271.000 SY	_____.	_____.
0088	415.5110.S Concrete Pavement Joint Layout 01. 1360-11-70	LS	LUMP SUM	_____.
0090	415.5110.S Concrete Pavement Joint Layout 02. 1360-15-70	LS	LUMP SUM	_____.



Proposal Schedule of Items

Page 4 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0092	416.0270 Concrete Driveway HES 7-Inch	52.000 SY	_____.	_____.
0094	416.0610 Drilled Tie Bars	2,353.000 EACH	_____.	_____.
0096	416.0620 Drilled Dowel Bars	10,638.000 EACH	_____.	_____.
0098	416.1720 Concrete Pavement Replacement	303.000 SY	_____.	_____.
0100	450.4000 HMA Cold Weather Paving	5,500.000 TON	_____.	_____.
0102	455.0605 Tack Coat	26,782.000 GAL	_____.	_____.
0104	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.	_____.
0106	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0108	460.2000 Incentive Density HMA Pavement	20.000 DOL	1.00000	20.00
0110	460.6223 HMA Pavement 3 MT 58-28 S	24,055.000 TON	_____.	_____.
0112	460.6224 HMA Pavement 4 MT 58-28 S	31,655.000 TON	_____.	_____.
0114	460.6424 HMA Pavement 4 MT 58-28 H	16.000 TON	_____.	_____.
0116	502.0100 Concrete Masonry Bridges	760.000 CY	_____.	_____.
0118	502.3200 Protective Surface Treatment	1,916.000 SY	_____.	_____.
0120	502.3210 Pigmented Surface Sealer	360.000 SY	_____.	_____.
0122	502.4204 Adhesive Anchors No. 4 Bar	456.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 5 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0124	502.4205 Adhesive Anchors No. 5 Bar	188.000 EACH	_____.	_____.
0126	505.0600 Bar Steel Reinforcement HS Coated Structures	179,370.000 LB	_____.	_____.
0128	506.2605 Bearing Pads Elastomeric Non-Laminated	24.000 EACH	_____.	_____.
0130	506.7050.S Removing Bearings (structure) 01. B-40-0280	12.000 EACH	_____.	_____.
0132	506.7050.S Removing Bearings (structure) 02. B-40-0281	12.000 EACH	_____.	_____.
0134	509.0301 Preparation Decks Type 1	8.000 SY	_____.	_____.
0136	509.0302 Preparation Decks Type 2	8.000 SY	_____.	_____.
0138	509.0310.S Sawing Pavement Deck Preparation Areas	80.000 LF	_____.	_____.
0140	509.1500 Concrete Surface Repair	494.000 SF	_____.	_____.
0142	509.2100.S Concrete Masonry Deck Repair	8.000 CY	_____.	_____.
0144	509.5100.S Polymer Overlay	10,565.000 SY	_____.	_____.
0146	509.9025.S Epoxy Injection Crack Repair	9.000 LF	_____.	_____.
0148	509.9026.S Cored Holes 2-Inch Diameter	2.000 EACH	_____.	_____.
0150	513.4091 Railing Tubular Screening	436.000 LF	_____.	_____.
0152	516.0500 Rubberized Membrane Waterproofing	84.000 SY	_____.	_____.



Proposal Schedule of Items

Page 6 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0154	517.0900.S Preparation and Coating of Top Flanges (structure) 01. B-40-0280	LS	LUMP SUM	_____.
0156	517.0900.S Preparation and Coating of Top Flanges (structure) 02. B-40-0281	LS	LUMP SUM	_____.
0158	517.1800.S Structure Repainting Recycled Abrasive (structure) 01. B-40-0278	LS	LUMP SUM	_____.
0160	517.1800.S Structure Repainting Recycled Abrasive (structure) 02. B-40-0279	LS	LUMP SUM	_____.
0162	517.1800.S Structure Repainting Recycled Abrasive (structure) 03. B-40-0280	LS	LUMP SUM	_____.
0164	517.1800.S Structure Repainting Recycled Abrasive (structure) 04. B-40-0281	LS	LUMP SUM	_____.
0166	517.1800.S Structure Repainting Recycled Abrasive (structure) 05. B-40-0280	LS	LUMP SUM	_____.
0168	517.1800.S Structure Repainting Recycled Abrasive (structure) 06. B-40-0281	LS	LUMP SUM	_____.
0170	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-40-0278	LS	LUMP SUM	_____.
0172	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-40-0279	LS	LUMP SUM	_____.
0174	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-40-0280	LS	LUMP SUM	_____.
0176	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 04. B-40-0281	LS	LUMP SUM	_____.



Proposal Schedule of Items

Page 7 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0178	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 05. B-40-0280	LS	LUMP SUM	_____.
0180	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 06. B-40-0281	LS	LUMP SUM	_____.
0182	517.6001.S Portable Decontamination Facility	6.000 EACH	_____.	_____.
0184	520.8000 Concrete Collars for Pipe	13.000 EACH	_____.	_____.
0186	520.8700 Cleaning Culvert Pipes	23.000 EACH	_____.	_____.
0188	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	2.000 EACH	_____.	_____.
0190	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	9.000 EACH	_____.	_____.
0192	521.1024 Apron Endwalls for Culvert Pipe Steel 24-Inch	1.000 EACH	_____.	_____.
0194	521.1036 Apron Endwalls for Culvert Pipe Steel 36-Inch	1.000 EACH	_____.	_____.
0196	521.1048 Apron Endwalls for Culvert Pipe Steel 48-Inch	3.000 EACH	_____.	_____.
0198	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	6.000 EACH	_____.	_____.
0200	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	1.000 EACH	_____.	_____.
0202	522.1021 Apron Endwalls for Culvert Pipe Reinforced Concrete 21-Inch	3.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 8 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0204	524.0618 Apron Endwalls for Culvert Pipe Salvaged 18-Inch	1.000 EACH	_____.	_____.
0206	524.0621 Apron Endwalls for Culvert Pipe Salvaged 21-Inch	1.000 EACH	_____.	_____.
0208	531.1100 Concrete Masonry Ancillary Structures Type NS	65.000 CY	_____.	_____.
0210	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	8,978.000 LB	_____.	_____.
0212	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	2,220.000 LB	_____.	_____.
0214	531.2036 Drilling Shaft 36-Inch	268.000 LF	_____.	_____.
0216	531.6010 Foundation Two-Shaft Type FC-I (structure) 01. S-40-3024	1.000 EACH	_____.	_____.
0218	531.6010 Foundation Two-Shaft Type FC-I (structure) 02. S-40-3025	1.000 EACH	_____.	_____.
0220	531.6010 Foundation Two-Shaft Type FC-I (structure) 03. S-40-3026	1.000 EACH	_____.	_____.
0222	531.6010 Foundation Two-Shaft Type FC-I (structure) 04. S-40-3029	1.000 EACH	_____.	_____.
0224	531.6020 Foundation Two-Shaft Type FC-II (structure) 01. S-40-3027	1.000 EACH	_____.	_____.
0226	531.6020 Foundation Two-Shaft Type FC-II (structure) 02. S-40-3031	1.000 EACH	_____.	_____.
0228	531.8990 Anchor Assemblies Poles on Structures	4.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 9 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0230	532.6000 Truss Cantilever 4-Chord Type NS (structure) 01. S-40-3028	1.000 EACH	_____.	_____.
0232	532.6000 Truss Cantilever 4-Chord Type NS (structure) 02. S-40-3030	1.000 EACH	_____.	_____.
0234	532.6010 Truss Cantilever 4-Chord Type I (structure) 01. S-40-3024	1.000 EACH	_____.	_____.
0236	532.6010 Truss Cantilever 4-Chord Type I (structure) 02. S-40-3025	1.000 EACH	_____.	_____.
0238	532.6010 Truss Cantilever 4-Chord Type I (structure) 03. S-40-3026	1.000 EACH	_____.	_____.
0240	532.6010 Truss Cantilever 4-Chord Type I (structure) 04. S-40-3029	1.000 EACH	_____.	_____.
0242	532.6020 Truss Cantilever 4-Chord Type II (structure) 01. S-40-3027	1.000 EACH	_____.	_____.
0244	532.6020 Truss Cantilever 4-Chord Type II (structure) 02. S-40-3031	1.000 EACH	_____.	_____.
0246	601.0331 Concrete Curb & Gutter 31-Inch	11,879.000 LF	_____.	_____.
0248	601.0409 Concrete Curb & Gutter 30-Inch Type A	394.000 LF	_____.	_____.
0250	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	4,489.000 LF	_____.	_____.
0252	602.0410 Concrete Sidewalk 5-Inch	3,870.000 SF	_____.	_____.
0254	602.0505 Curb Ramp Detectable Warning Field Yellow	135.000 SF	_____.	_____.
0256	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	136.000 SF	_____.	_____.



Proposal Schedule of Items

Page 10 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0258	603.0105 Concrete Barrier Single-Faced 32-Inch	5,574.000 LF	_____.	_____.
0260	603.0205 Concrete Barrier Double-Faced 32-Inch	222.000 LF	_____.	_____.
0262	603.0405 Concrete Barrier Transition Section 32-Inch	43.000 LF	_____.	_____.
0264	603.1156 Concrete Barrier Type S56	20.000 LF	_____.	_____.
0266	603.3113 Concrete Barrier Transition Type NJ32SF to S36	2.000 EACH	_____.	_____.
0268	603.3513 Concrete Barrier Transition Type S32 to S36	2.000 EACH	_____.	_____.
0270	603.3535 Concrete Barrier Transition Type S36 to S42	2.000 EACH	_____.	_____.
0272	603.3559 Concrete Barrier Transition Type S42 to S56	2.000 EACH	_____.	_____.
0274	604.0400 Slope Paving Concrete	792.000 SY	_____.	_____.
0276	608.0115 Relaid Storm Sewer 15-Inch	40.000 LF	_____.	_____.
0278	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	122.000 LF	_____.	_____.
0280	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	21.000 LF	_____.	_____.
0282	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	32.000 LF	_____.	_____.
0284	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	4.000 LF	_____.	_____.



Proposal Schedule of Items

Page 11 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0286	611.0420 Reconstructing Manholes	7.000 EACH	_____.	_____.
0288	611.0430 Reconstructing Inlets	155.000 EACH	_____.	_____.
0290	611.0555 Manhole Covers Type Q	1.000 EACH	_____.	_____.
0292	611.0606 Inlet Covers Type B	13.000 EACH	_____.	_____.
0294	611.0648 Inlet Covers Type R	1.000 EACH	_____.	_____.
0296	611.0651 Inlet Covers Type S	8.000 EACH	_____.	_____.
0298	611.0663 Inlet Covers Type X	23.000 EACH	_____.	_____.
0300	611.3220 Inlets 2x2-FT	18.000 EACH	_____.	_____.
0302	611.3225 Inlets 2x2.5-FT	20.000 EACH	_____.	_____.
0304	611.8110 Adjusting Manhole Covers	11.000 EACH	_____.	_____.
0306	611.8115 Adjusting Inlet Covers	54.000 EACH	_____.	_____.
0308	611.8120.S Cover Plates Temporary	10.000 EACH	_____.	_____.
0310	612.0406 Pipe Underdrain Wrapped 6-Inch	160.000 LF	_____.	_____.
0312	614.0397 Guardrail Mow Strip Emulsified Asphalt	1,898.000 SY	_____.	_____.
0314	614.0700 Sand Barrels Arrays	1.000 EACH	_____.	_____.
0316	614.0800 Crash Cushions Permanent	1.000 EACH	_____.	_____.
0318	614.2300 MGS Guardrail 3	1,413.000 LF	_____.	_____.



Proposal Schedule of Items

Page 12 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0320	614.2310 MGS Guardrail 3 HS	50.000 LF	_____.	_____.
0322	614.2500 MGS Thrie Beam Transition	749.000 LF	_____.	_____.
0324	614.2610 MGS Guardrail Terminal EAT	24.000 EACH	_____.	_____.
0326	614.2620 MGS Guardrail Terminal Type 2	7.000 EACH	_____.	_____.
0328	616.0204 Fence Chain Link 4-FT	79.000 LF	_____.	_____.
0330	616.0206 Fence Chain Link 6-FT	318.000 LF	_____.	_____.
0332	616.0700.S Fence Safety	500.000 LF	_____.	_____.
0334	619.1000 Mobilization	1.000 EACH	_____.	_____.
0336	620.0300 Concrete Median Sloped Nose	462.000 SF	_____.	_____.
0338	624.0100 Water	75.900 MGAL	_____.	_____.
0340	625.0100 Topsoil	12,418.000 SY	_____.	_____.
0342	628.1104 Erosion Bales	50.000 EACH	_____.	_____.
0344	628.1504 Silt Fence	22,046.000 LF	_____.	_____.
0346	628.1520 Silt Fence Maintenance	22,066.000 LF	_____.	_____.
0348	628.1905 Mobilizations Erosion Control	14.000 EACH	_____.	_____.
0350	628.1910 Mobilizations Emergency Erosion Control	28.000 EACH	_____.	_____.
0352	628.2004 Erosion Mat Class I Type B	5,726.000 SY	_____.	_____.



Proposal Schedule of Items

Page 13 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0354	628.2006 Erosion Mat Urban Class I Type A	6,190.000 SY	_____.	_____.
0356	628.2008 Erosion Mat Urban Class I Type B	395.000 SY	_____.	_____.
0358	628.7005 Inlet Protection Type A	93.000 EACH	_____.	_____.
0360	628.7010 Inlet Protection Type B	332.000 EACH	_____.	_____.
0362	628.7015 Inlet Protection Type C	41.000 EACH	_____.	_____.
0364	628.7020 Inlet Protection Type D	66.000 EACH	_____.	_____.
0366	628.7504 Temporary Ditch Checks	325.000 LF	_____.	_____.
0368	628.7555 Culvert Pipe Checks	229.000 EACH	_____.	_____.
0370	629.0210 Fertilizer Type B	9.800 CWT	_____.	_____.
0372	630.0160 Seeding Mixture No. 60	52.000 LB	_____.	_____.
0374	630.0170 Seeding Mixture No. 70	74.500 LB	_____.	_____.
0376	630.0500 Seed Water	333.000 MGAL	_____.	_____.
0378	634.0618 Posts Wood 4x6-Inch X 18-FT	65.000 EACH	_____.	_____.
0380	634.0622 Posts Wood 4x6-Inch X 22-FT	93.000 EACH	_____.	_____.
0382	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	13.000 EACH	_____.	_____.
0384	635.0200 Sign Supports Structural Steel HS	18,500.000 LB	_____.	_____.
0386	637.1220 Signs Type I Reflective SH	6,195.500 SF	_____.	_____.



Proposal Schedule of Items

Page 14 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0388	637.1230 Signs Type I Reflective F	127.500 SF	_____.	_____.
0390	637.2210 Signs Type II Reflective H	690.550 SF	_____.	_____.
0392	637.2230 Signs Type II Reflective F	471.750 SF	_____.	_____.
0394	638.2101 Moving Signs Type I	3.000 EACH	_____.	_____.
0396	638.2102 Moving Signs Type II	47.000 EACH	_____.	_____.
0398	638.2601 Removing Signs Type I	38.000 EACH	_____.	_____.
0400	638.2602 Removing Signs Type II	32.000 EACH	_____.	_____.
0402	638.3000 Removing Small Sign Supports	76.000 EACH	_____.	_____.
0404	638.3100 Removing Structural Steel Sign Supports	32.000 EACH	_____.	_____.
0406	638.3150 Removing Overhead Sign Supports Cantilever (structure) 01. S-40-0025	1.000 EACH	_____.	_____.
0408	638.3150 Removing Overhead Sign Supports Cantilever (structure) 02. S-40-0845	1.000 EACH	_____.	_____.
0410	638.3150 Removing Overhead Sign Supports Cantilever (structure) 03. S-40-0874	1.000 EACH	_____.	_____.
0412	638.3155 Removing Overhead Sign Supports Full Span (structure) 01. S-40-0369 NB Only	1.000 EACH	_____.	_____.
0414	643.0300 Traffic Control Drums	259,122.000 DAY	_____.	_____.
0416	643.0410 Traffic Control Barricades Type II	749.000 DAY	_____.	_____.
0418	643.0420 Traffic Control Barricades Type III	16,787.000 DAY	_____.	_____.



Proposal Schedule of Items

Page 15 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0420	643.0705 Traffic Control Warning Lights Type A	34,398.000 DAY	_____.	_____.
0422	643.0715 Traffic Control Warning Lights Type C	36,860.000 DAY	_____.	_____.
0424	643.0800 Traffic Control Arrow Boards	943.000 DAY	_____.	_____.
0426	643.0900 Traffic Control Signs	43,864.000 DAY	_____.	_____.
0428	643.0910 Traffic Control Covering Signs Type I	12.000 EACH	_____.	_____.
0430	643.0920 Traffic Control Covering Signs Type II	32.000 EACH	_____.	_____.
0432	643.1000 Traffic Control Signs Fixed Message	236.250 SF	_____.	_____.
0434	643.1050 Traffic Control Signs PCMS	96.000 DAY	_____.	_____.
0436	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0438	644.1430 Temporary Pedestrian Surface Plate	80.000 SF	_____.	_____.
0440	644.1601 Temporary Pedestrian Curb Ramp	31.000 DAY	_____.	_____.
0442	644.1810 Temporary Pedestrian Barricade	1,217.000 LF	_____.	_____.
0444	645.0120 Geotextile Type HR	150.000 SY	_____.	_____.
0446	646.1020 Marking Line Epoxy 4-Inch	2,951.000 LF	_____.	_____.
0448	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	126,261.000 LF	_____.	_____.
0450	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	12,968.000 LF	_____.	_____.



Proposal Schedule of Items

Page 16 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0452	646.3020 Marking Line Epoxy 8-Inch	1,671.000 LF	_____.	_____.
0454	646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch	21.000 LF	_____.	_____.
0456	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	21,119.000 LF	_____.	_____.
0458	646.5020 Marking Arrow Epoxy	53.000 EACH	_____.	_____.
0460	646.5120 Marking Word Epoxy	10.000 EACH	_____.	_____.
0462	646.5220 Marking Symbol Epoxy	6.000 EACH	_____.	_____.
0464	646.6120 Marking Stop Line Epoxy 18-Inch	275.000 LF	_____.	_____.
0466	646.6220 Marking Yield Line Epoxy 18-Inch	15.000 EACH	_____.	_____.
0468	646.7120 Marking Diagonal Epoxy 12-Inch	6,834.000 LF	_____.	_____.
0470	646.7220 Marking Chevron Epoxy 24-Inch	2,577.000 LF	_____.	_____.
0472	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	664.000 LF	_____.	_____.
0474	646.8120 Marking Curb Epoxy	165.000 LF	_____.	_____.
0476	646.8220 Marking Island Nose Epoxy	2.000 EACH	_____.	_____.
0478	646.9000 Marking Removal Line 4-Inch	3,290.000 LF	_____.	_____.
0480	646.9100 Marking Removal Line 8-Inch	1,390.000 LF	_____.	_____.
0482	646.9300 Marking Removal Special Marking	12.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 17 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0484	649.0120 Temporary Marking Line Epoxy 4-Inch	44,153.000 LF	_____.	_____.
0486	649.0150 Temporary Marking Line Removable Tape 4-Inch	114,233.000 LF	_____.	_____.
0488	649.0220 Temporary Marking Line Epoxy 8-Inch	10,333.000 LF	_____.	_____.
0490	649.0250 Temporary Marking Line Removable Tape 8-Inch	17,370.000 LF	_____.	_____.
0492	650.4000 Construction Staking Storm Sewer	38.000 EACH	_____.	_____.
0494	650.5000 Construction Staking Base	900.000 LF	_____.	_____.
0496	650.5500 Construction Staking Curb Gutter and Curb & Gutter	5,755.000 LF	_____.	_____.
0498	650.6500 Construction Staking Structure Layout (structure) 01. B-40-0278	LS	LUMP SUM	_____.
0500	650.6500 Construction Staking Structure Layout (structure) 02. B-40-0279	LS	LUMP SUM	_____.
0502	650.6500 Construction Staking Structure Layout (structure) 03. B-40-0280	LS	LUMP SUM	_____.
0504	650.6500 Construction Staking Structure Layout (structure) 04. B-40-0281	LS	LUMP SUM	_____.
0506	650.7000 Construction Staking Concrete Pavement	775.000 LF	_____.	_____.
0508	650.7500 Construction Staking Concrete Barrier	5,865.000 LF	_____.	_____.
0510	650.8000 Construction Staking Resurfacing Reference	49,464.000 LF	_____.	_____.



Proposal Schedule of Items

Page 18 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0512	650.8500 Construction Staking Electrical Installations (project) 01. 1360-11-70	LS	LUMP SUM	_____.
0514	650.8500 Construction Staking Electrical Installations (project) 02. 1360-15-70	LS	LUMP SUM	_____.
0516	650.9000 Construction Staking Curb Ramps	21.000 EACH	_____.	_____.
0518	650.9910 Construction Staking Supplemental Control (project) 01. 1360-11-70	LS	LUMP SUM	_____.
0520	650.9910 Construction Staking Supplemental Control (project) 02. 1360-15-70	LS	LUMP SUM	_____.
0522	650.9910 Construction Staking Supplemental Control (project) 03. 1360-16-70	LS	LUMP SUM	_____.
0524	650.9910 Construction Staking Supplemental Control (project) 04. 1360-17-70	LS	LUMP SUM	_____.
0526	650.9920 Construction Staking Slope Stakes	6,000.000 LF	_____.	_____.
0528	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	3,489.000 LF	_____.	_____.
0530	652.0230 Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	1,235.000 LF	_____.	_____.
0532	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,655.000 LF	_____.	_____.
0534	652.0610 Conduit Special 2 1/2-Inch	150.000 LF	_____.	_____.
0536	652.0700.S Install Conduit into Existing Item	2.000 EACH	_____.	_____.
0538	653.0135 Pull Boxes Steel 24x36-Inch	3.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 19 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0540	653.0140 Pull Boxes Steel 24x42-Inch	1.000 EACH	_____.	_____.
0542	653.0222 Junction Boxes 18x12x6-Inch	4.000 EACH	_____.	_____.
0544	653.0905 Removing Pull Boxes	11.000 EACH	_____.	_____.
0546	654.0101 Concrete Bases Type 1	3.000 EACH	_____.	_____.
0548	654.0105 Concrete Bases Type 5	1.000 EACH	_____.	_____.
0550	654.0106 Concrete Bases Type 6	3.000 EACH	_____.	_____.
0552	654.0107 Concrete Bases Type 7	2.000 EACH	_____.	_____.
0554	654.0120 Concrete Bases Type 10-Special	1.000 EACH	_____.	_____.
0556	655.0230 Cable Traffic Signal 5-14 AWG	378.000 LF	_____.	_____.
0558	655.0260 Cable Traffic Signal 12-14 AWG	1,085.000 LF	_____.	_____.
0560	655.0515 Electrical Wire Traffic Signals 10 AWG	240.000 LF	_____.	_____.
0562	655.0620 Electrical Wire Lighting 8 AWG	1,200.000 LF	_____.	_____.
0564	655.0625 Electrical Wire Lighting 6 AWG	8,250.000 LF	_____.	_____.
0566	655.0700 Loop Detector Lead In Cable	472.000 LF	_____.	_____.
0568	655.0800 Loop Detector Wire	850.000 LF	_____.	_____.
0570	657.0100 Pedestal Bases	7.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 20 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0572	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	9.000 EACH	_____.	_____.
0574	657.0305 Poles Type 2	1.000 EACH	_____.	_____.
0576	657.0327 Poles Type 6-Aluminum	3.000 EACH	_____.	_____.
0578	657.0420 Traffic Signal Standards Aluminum 13-FT	5.000 EACH	_____.	_____.
0580	657.0430 Traffic Signal Standards Aluminum 10-FT	2.000 EACH	_____.	_____.
0582	657.0595 Trombone Arms 25-FT	1.000 EACH	_____.	_____.
0584	658.0171 Traffic Signal Face 1S 12-Inch	3.000 EACH	_____.	_____.
0586	658.0173 Traffic Signal Face 3S 12-Inch	8.000 EACH	_____.	_____.
0588	658.0416 Pedestrian Signal Face 16-Inch	2.000 EACH	_____.	_____.
0590	658.0500 Pedestrian Push Buttons	2.000 EACH	_____.	_____.
0592	658.5069 Signal Mounting Hardware (location) 01. STH 145 & Fond du Lac Avenue	LS	LUMP SUM	_____.
0594	659.0600 Underdeck Lighting (location) 01. Silver Spring Drive NB/STH 145	LS	LUMP SUM	_____.
0596	659.0600 Underdeck Lighting (location) 02. Silver Spring Drive SB/STH 145	LS	LUMP SUM	_____.
0598	659.0600 Underdeck Lighting (location) 03. 76th Street NB/STH 145	LS	LUMP SUM	_____.
0600	659.0600 Underdeck Lighting (location) 04. 76th Street SB/STH 145	LS	LUMP SUM	_____.



Proposal Schedule of Items

Page 21 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0602	659.0600 Underdeck Lighting (location) 05. Grantosa Drive NB/STH 145	LS	LUMP SUM	_____.
0604	659.0600 Underdeck Lighting (location) 06. Grantosa Drive SB/STH 145	LS	LUMP SUM	_____.
0606	670.0100 Field System Integrator	LS	LUMP SUM	_____.
0608	670.0200 ITS Documentation	LS	LUMP SUM	_____.
0610	674.0300 Remove Cable	1,380.000 LF	_____.	_____.
0612	674.0400 Reinstall Cable	505.000 LF	_____.	_____.
0614	675.0300 Install Mounted Controller Microwave Detector Assembly	6.000 EACH	_____.	_____.
0616	678.0600 Install Ethernet Switches	3.000 EACH	_____.	_____.
0618	690.0150 Sawing Asphalt	36.000 LF	_____.	_____.
0620	690.0250 Sawing Concrete	29,383.000 LF	_____.	_____.
0622	715.0415 Incentive Strength Concrete Pavement	548.000 DOL	1.00000	548.00
0624	715.0502 Incentive Strength Concrete Structures	4,962.000 DOL	1.00000	4,962.00
0626	715.0603 Incentive Strength Concrete Barrier	2,998.000 DOL	1.00000	2,998.00
0628	740.0440 Incentive IRI Ride	32,680.000 DOL	1.00000	32,680.00
0630	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	3,500.000 HRS	5.00000	17,500.00



Proposal Schedule of Items

Page 22 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0632	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	16,200.000 HRS	5.00000	81,000.00
0634	SPV.0055 Special 01. Incentive Density PWL HMA Pavement	29,790.000 DOL	1.00000	29,790.00
0636	SPV.0055 Special 02. Incentive Air Voids HMA Pavement	56,000.000 DOL	1.00000	56,000.00
0638	SPV.0060 Special 01. Traffic Control Close-Open Freeway Service Ramp	15.000 EACH	_____.	_____.
0640	SPV.0060 Special 02. Traffic Control Full Freeway Closure	72.000 EACH	_____.	_____.
0642	SPV.0060 Special 03. Adjusting Water Valve Boxes	4.000 EACH	_____.	_____.
0644	SPV.0060 Special 04. Cleaning Inlets	84.000 EACH	_____.	_____.
0646	SPV.0060 Special 05. Field Facilities Office Space	1.000 EACH	_____.	_____.
0648	SPV.0060 Special 06. Utility Line Opening (ULO)	5.000 EACH	_____.	_____.
0650	SPV.0060 Special 10. Relocating Existing Single Arm Lighting Assembly	2.000 EACH	_____.	_____.
0652	SPV.0060 Special 18. Lighting Unit Grading	2.000 EACH	_____.	_____.
0654	SPV.0060 Special 30. Install Poles Type 9 Special	1.000 EACH	_____.	_____.
0656	SPV.0060 Special 31. Install Monotube Arms 40-Ft Type 9/10 Spec Pole	1.000 EACH	_____.	_____.
0658	SPV.0060 Special 40. Strapping C-40-8	3.000 EACH	_____.	_____.
0660	SPV.0060 Special 41. Strapping C-40-6	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 23 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0662	SPV.0060 Special 50. 4' Diameter Manhole Type CUC	2.000 EACH	_____.	_____.
0664	SPV.0060 Special 51. 4' Diameter "Doghouse" Manhole Type CUC, Installed over Conduit	1.000 EACH	_____.	_____.
0666	SPV.0060 Special 52. Installing Conduit Into Existing Manhole	2.000 EACH	_____.	_____.
0668	SPV.0060 Special 60. Remove 2070 Controller	3.000 EACH	_____.	_____.
0670	SPV.0060 Special 61. Ground rod	3.000 EACH	_____.	_____.
0672	SPV.0060 Special 70. Pull Boxes 13-Inch x 24-Inch x 24-Inch	6.000 EACH	_____.	_____.
0674	SPV.0060 Special 71. Poles Type 25-AL-BD	5.000 EACH	_____.	_____.
0676	SPV.0060 Special 72. Luminaire Arms Single Member 6-FT	6.000 EACH	_____.	_____.
0678	SPV.0060 Special 73. Luminaire Utility LED 3	6.000 EACH	_____.	_____.
0680	SPV.0090 Special 20. Expansion Joint Seal System	240.000 LF	_____.	_____.
0682	SPV.0090 Special 50. 4-Duct Conduit, Cement Encased, 3" Rigid Nonmetallic Conduit DB-60	135.000 LF	_____.	_____.
0684	SPV.0090 Special 60. Outdoor Rated Network Cable	480.000 LF	_____.	_____.
0686	SPV.0105 Special 01. Trnspt & Install State Furn Traffic Signal Cabinet STH 145 & Fond du Lac Ave	LS	LUMP SUM	_____.



Proposal Schedule of Items

Page 24 of 24

Proposal ID: 20210914009 Project(s): 1360-11-70, 1360-15-70, 1360-16-70, 1360-17-70

Federal ID(s): WISC 2021477, N/A, N/A, WISC 2021478

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0688	SPV.0105 Special 02. Trnspt & Install State Furn Radar Detect Sys STH 145 & Fond du Lac Ave	LS	LUMP SUM	_____.
0690	SPV.0105 Special 03. Trnspt Traffic Signal & Inter Light Materials. STH 145 & Fond du Lac Ave	LS	LUMP SUM	_____.
0692	SPV.0165 Special 01. Fiber Wrap Reinforcing Structural	91.000 SF	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

PLEASE ATTACH ADDENDA HERE



Wisconsin Department of Transportation

August 23, 2021

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #09: 1360-11-70, WISC 2021477
Fond du Lac Ave (STH 145)
Grantosa, Flagg/Florist Bridges
STH 145
Milwaukee County

1360-15-70, WISC 2021478
Fond du Lac Ave (STH 145)
Good Hope Rd I/C to 68th St
STH 145
Milwaukee County

1360-16-70
Fond du Lac Ave (STH 145)
Good Hope Rd to W County Line
STH 145
Milwaukee County

1360-17-60
Various Bridge Locations
STH 145/STH 175/STH 181
Var Hwy
Milwaukee County

Letting of September 14, 2021

This is Addendum No. 01, which provides for the following:

Plan Sheets:

Added Plan Sheets – 1360-15-70	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
330A-330F	SDD 14B32-08 Series; Concrete Barrier Single Slope (CBSS)

Deleted Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)
331-335	SDD 14B32-07 series; Concrete Barrier Single Slope (CBSS)

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

END OF ADDENDUM

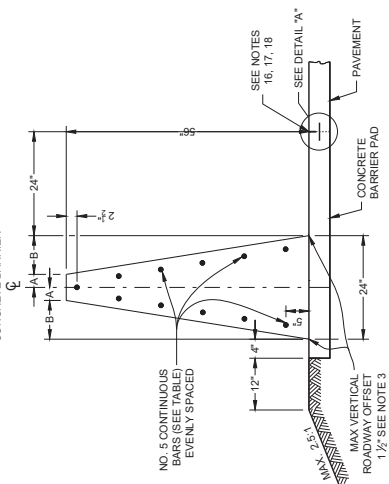


SDD 14B32-a Concrete Barrier Single Slope (CBSS)

GENERAL NOTES

- WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
- EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OF $\frac{1}{2}$ " MINIMUM.
- WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1", USE TYPE A.
- PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
- EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1" - 0".
- FOR TYPE S32, TYPE S36, TYPE S42 AND TYPE S66 MONOLITHIC FOOTING OR DOWELED FOOTING 2' - 0" X 8' @ 2' - 0".
- STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
- WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP FORMING CUT-OFF POINT. EXPOSED STEEL INTO NEXT POURS TO BE FIRMLY TIED.
- USE $\frac{3}{4}$ " BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- 12" CLEAR COVER TYPICAL
- COLD JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS, WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
- IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S66 NO ADDITIONAL VERTICAL STEEL IS NEEDED. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S66, REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
- IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S66, REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
- IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S66, REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
- FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON SDD 14B32. ANCHORS INCIDENTAL TO CBSS.
- CONCRETE BARRIER PAD UNDER CBSS MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAVED $\frac{1}{2}$ " DEPTH. CONCRETE BARRIER PAD AND SAVING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
- CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10".
- SEE SDD 13C1 FOR DETAILS TYING CONCRETE BARRIER PAD TO ADJACENT CONCRETE.
- PROVIDE A 1" DEEP CONTRACTION JOINT IN BARRIER PAD AND BARRIER. JOINT IS TO MATCH EXISTING CONCRETE BARRIER. JOINT IS REQUIRED FOR BARRIER PAD, IF ADJACENT TO ASPHALT, CONTRACTION JOINT IS REQUIRED EVERY 15'.

CONCRETE BARRIER

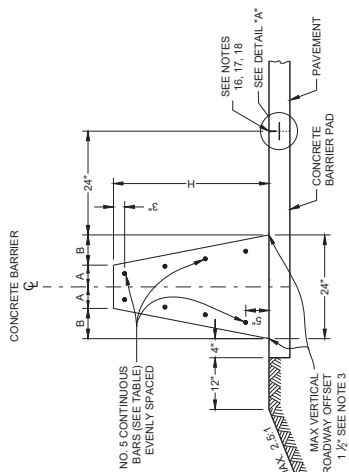


56 - INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)

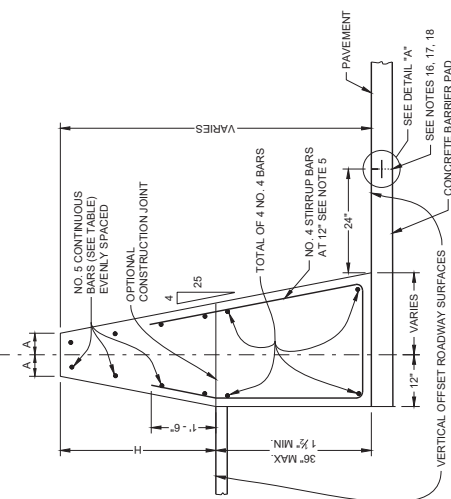
ADDENDUM to this SDD 8/4/2021: DELETE GENERAL NOTES 13 AND 14

BARRIER HEIGHT INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 1/2	5 1/2	8
42	5 1/2	6 1/2	10
56	3	9	11

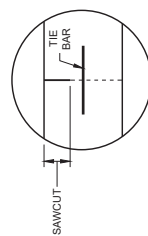
32 - INCH, 36 - INCH OR 42 - INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, TYPE S42)



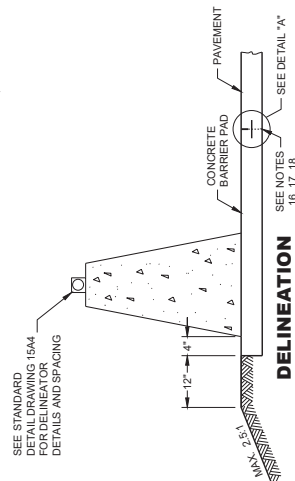
CONCRETE BARRIER



SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S66A) (BETWEEN ADJACENT ROADWAYS)

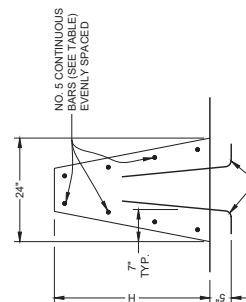


DETAIL "A"



DELINEATION

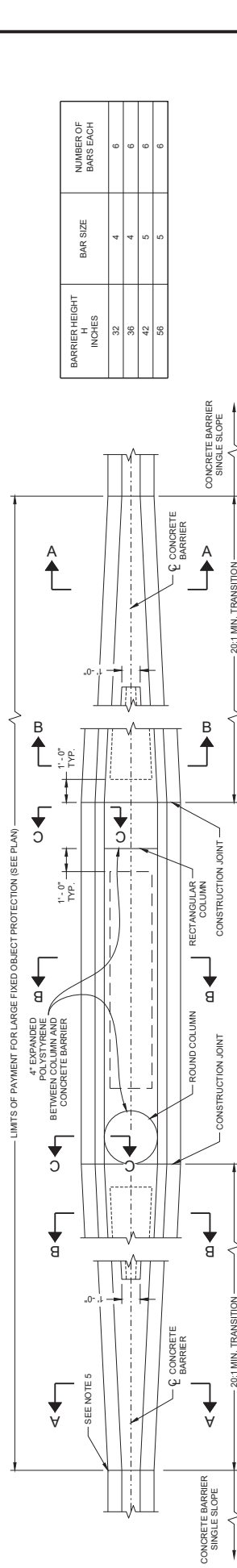
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE (NON OUTER PARAPET APPLICATION)



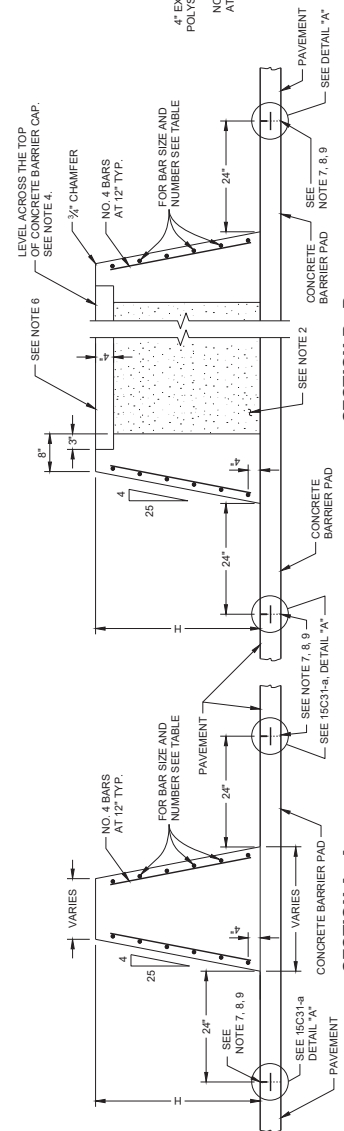
Addendum No. 01
ID 1360-15-70
Added Sheets 330A
August 23, 2021

CONCRETE BARRIER
SINGLE SLOPE (CBSS)

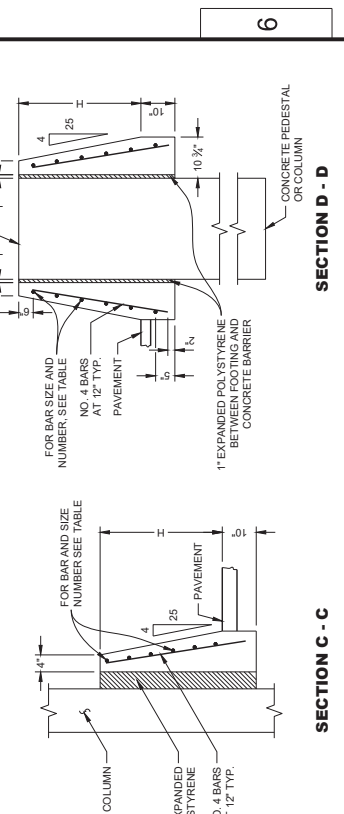
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



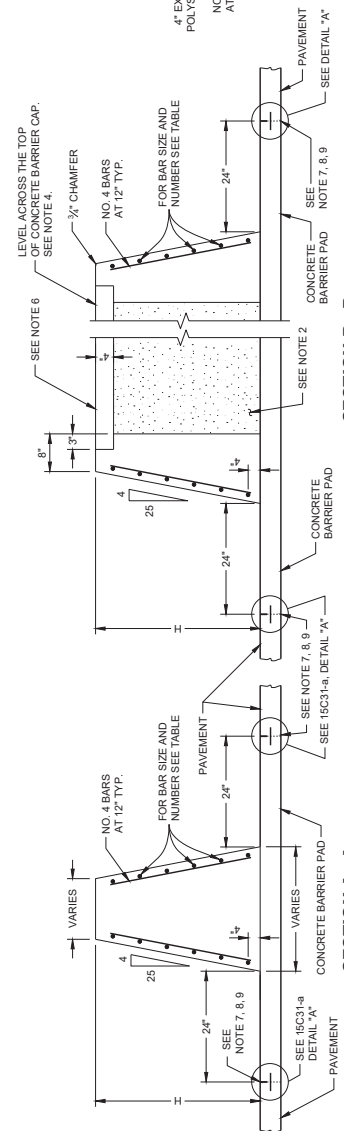
LARGE FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)



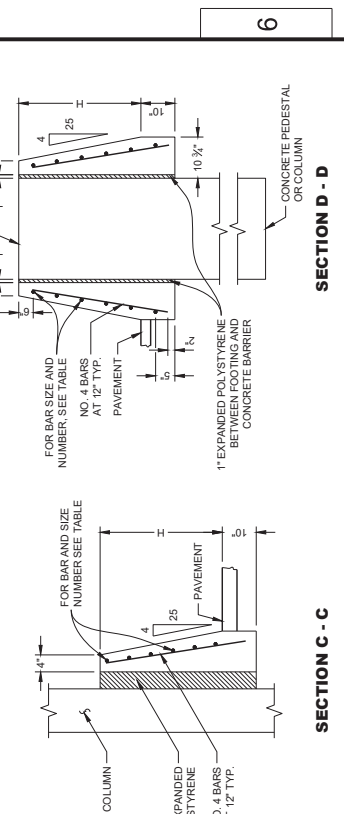
SECTION A - A



SECTION B - B



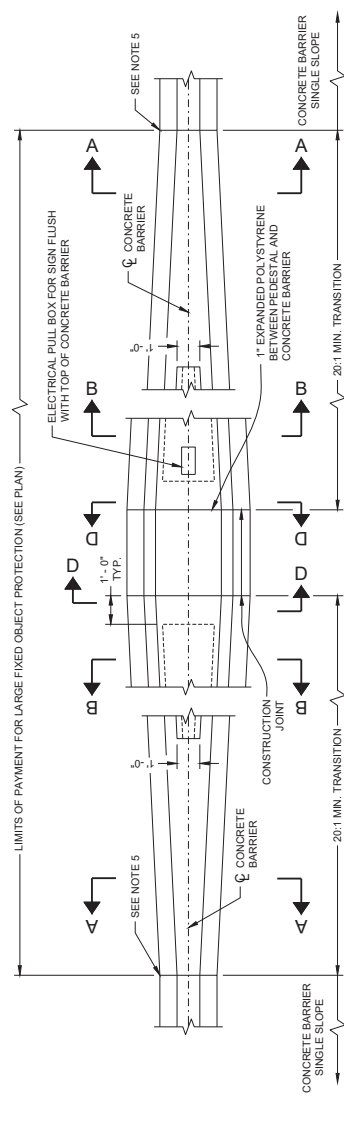
SECTION C - C



SECTION D - D

GENERAL NOTES

1. INSTALL 1 INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B - B. MINIMUM ONE DRAIN CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH FOUNDATION BACKFILL.
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBS IS PLACED FIRST, USE EXPANSION JOINT.
6. USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.
7. CONCRETE BARRIER PAD UNDER CBS MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED 1/4" DEPTH. CONCRETE BARRIER PAD AND SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
8. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
9. SEE SDD 13C1 FOR DETAILS TYING CONCRETE BARRIER PAD TO ADJACENT CONCRETE.



SMALL FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

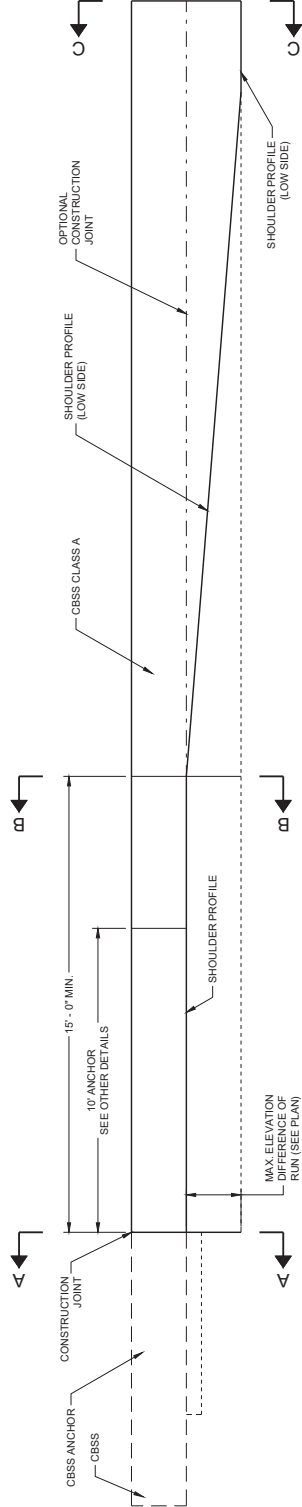
Addendum No. 01
ID 1360-15-70
Added Sheets 330B
August 23, 2021

CONCRETE BARRIER
SINGLE SLOPE (CBSS)

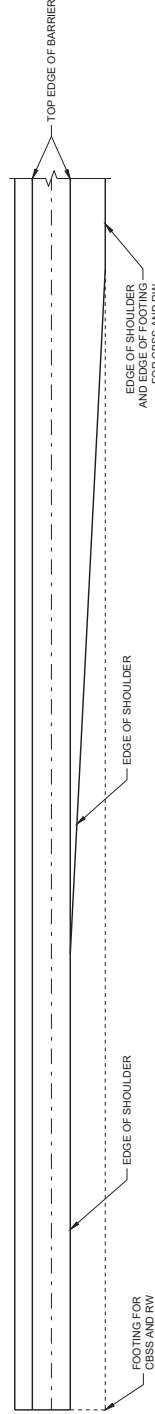
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

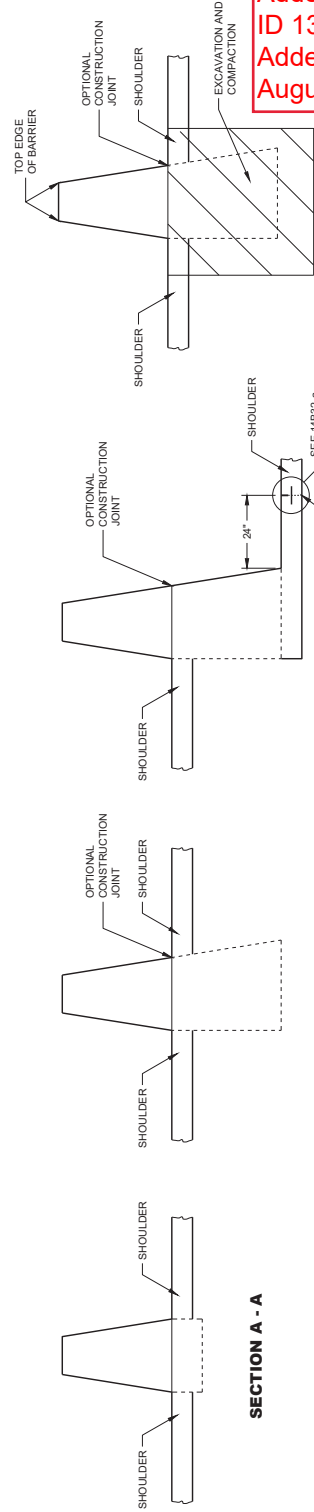
1. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. SEE SDD 14B32 FOR JOINT DEPTH AND WIDTH, CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
2. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
3. SEE SDD 13C1 FOR DETAILS TYING BARRIER FOOTING TO ADJACENT CONCRETE.



**ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)**



**PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)**



SECTION A - A

SECTION B - B

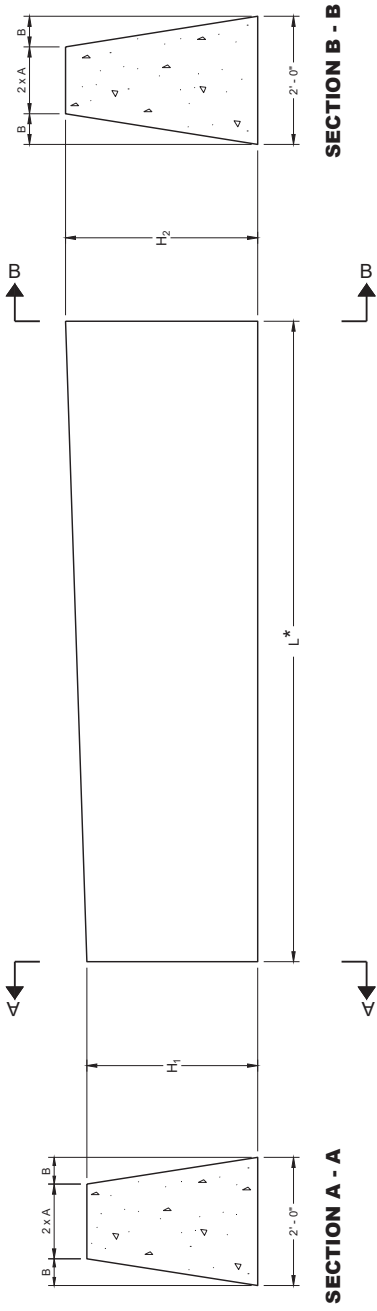
SECTION C - C

**Addendum No. 01
ID 1360-15-70
Added Sheets 330C
August 23, 2021**

**CONCRETE BARRIER SINGLE SLOPE
(CBSS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

330C



DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

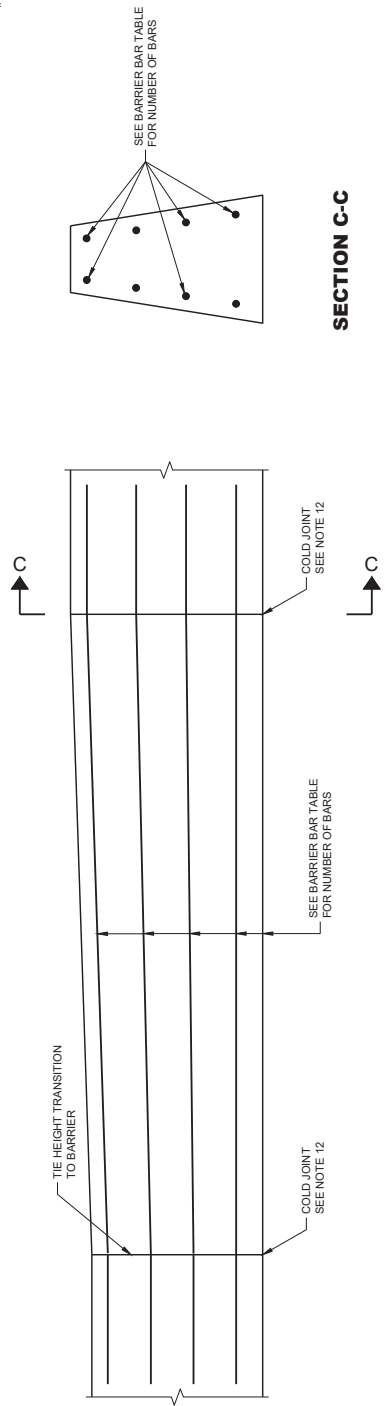
BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 1/4
42	5 1/4	6 1/4
56	3	9

MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT. USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

BARRIER BARS

H ₁	H ₂	L *	NUMBER OF INCHES BARS
32"	36"	10' - 0"	8
36"	42"	10' - 6"	10
42"	56"	24' - 6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL

SECTION C-C

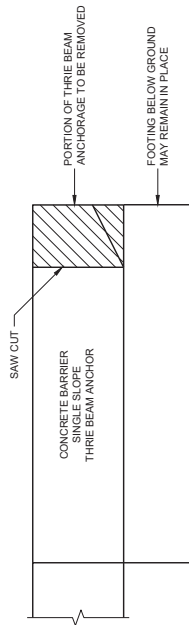
**CONCRETE BARRIER
SINGLE SLOPE (CBSS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

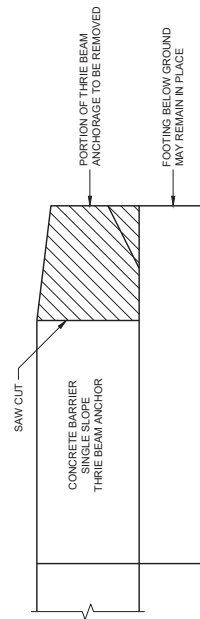
APPROVED
MAY 2021
DATE
R/S: Rodney Taylor
ROADWAY DESIGN DEVELOPMENT
UNIT SUPERVISOR
FPM

Addendum No. 01
ID 1360-15-70
Added Sheets 330D
August 23, 2021

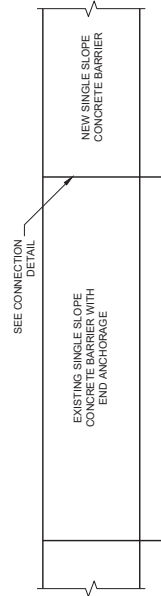
1. THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).
2. MINIMUM DEPTH OF DRILL HOLES IS 1'- 3".
3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.
5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIERS.
6. REMOVE THREE BEAM ANCHORAGE AS SHOWN.



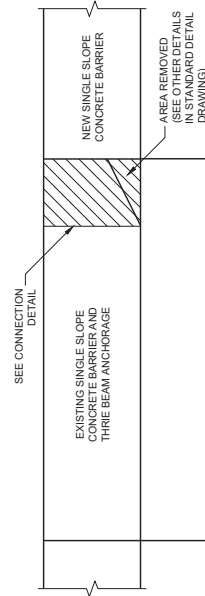
**REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE**



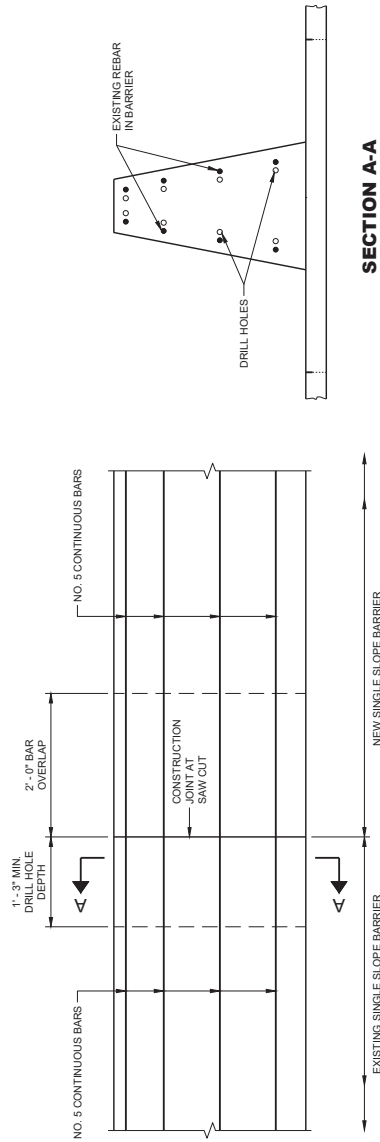
**REMOVAL AREA OF CONCRETE THIRIE BEAM
ANCHORAGE WITH HEIGHT GREATER THAN 32"**



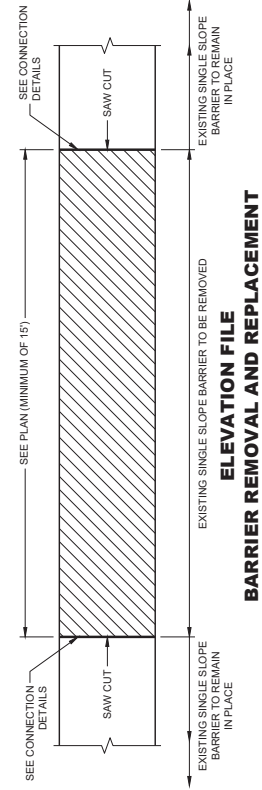
**ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR END ANCHORAGE**



**ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR THRIE BEAM TERMINAL**



CONNECTION OF EXISTING SINGLE SLOPE CONCRETE BARRIER TO NEW SINGLE SLOPE CONCRETE BARRIER



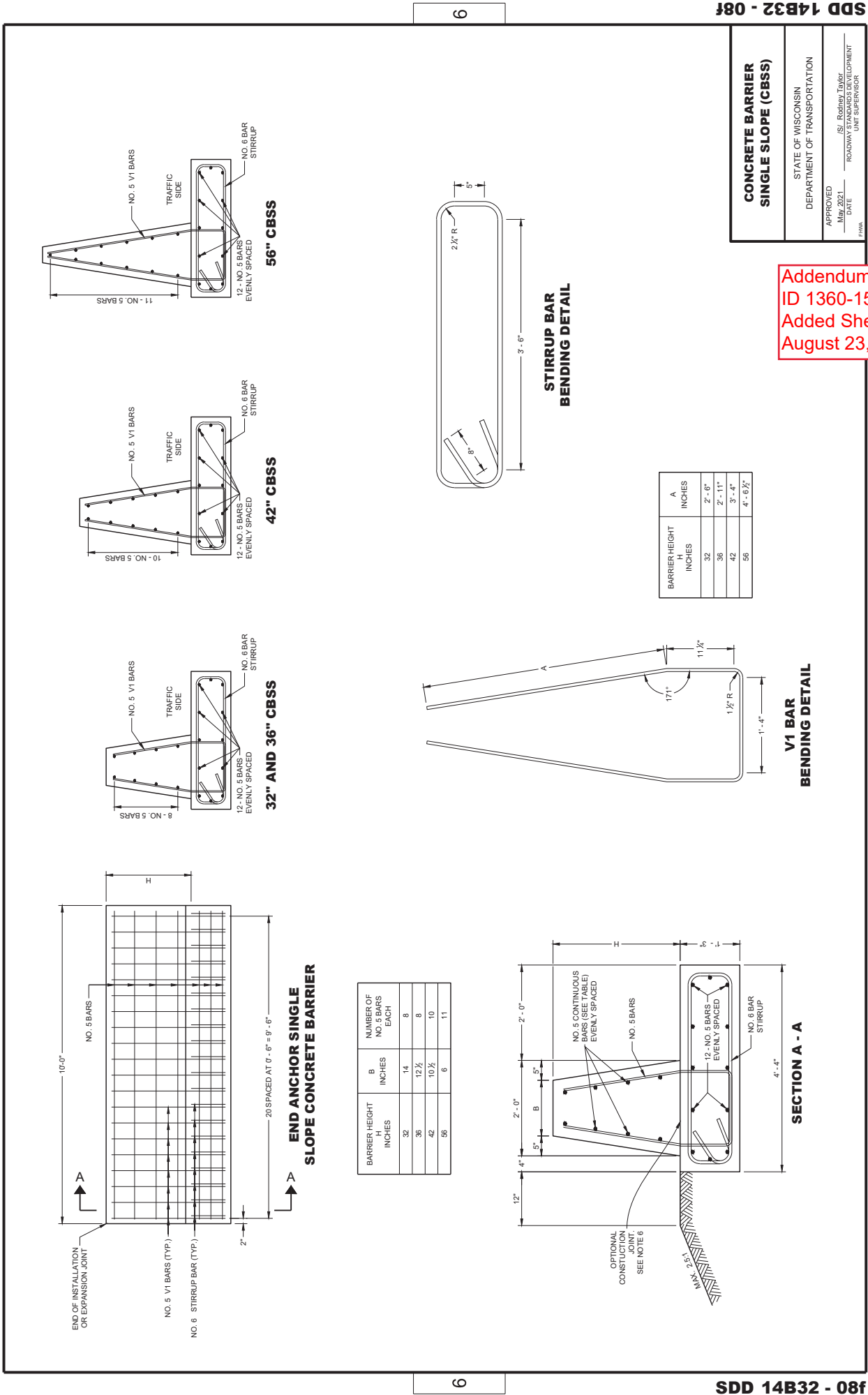
BARRIER REMOVAL AND REPLACEMENT

<p>CONCRETE BARRIER SINGLE SLOPE (CBSS)</p>	<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	<p>APPROVED _____ <i>May 2021</i> DATE _____ <i>/s/ Rodney Taylor</i> ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR</p>
<p>PIVWA</p>		

Addendum No. 01
ID 1360-15-70
Added Sheets 330E
August 23, 2021

RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

330E



Addendum No. 01
ID 1360-15-70
Added Sheets 330F
August 23, 2021

CONCRETE BARRIER SINGLE SLOPE (CBSS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED MAY 2021	DESIGNED BY ROADWAY DESIGN DEVELOPMENT UNIT SUPERVISOR

