

HIGHWAY WORK PROPOSAL

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

Proposal Number:

006

<u>STATE ID</u>	<u>FEDERAL ID</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>	<u>COUNTY</u>
5992-11-21	WISC 2024445	City of Madison, John Nolen Drive, Lakeside St to North Shore Dr	LOC STR	Dane
5992-11-22	WISC 2025579	City of Madison, John Nolen Drive, Monona Bay Bridge B-13-930 Sb	LOC STR	Dane
5992-11-23	WISC 2025580	City of Madison, John Nolen Drive, Monona Bay Bridge B-13-930 Nb	LOC STR	Dane
5992-11-24	WISC 2025611	City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0924 Nb	LOC STR	Dane
5992-11-25	WISC 2025612	City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0924 Sb	LOC STR	Dane
5992-11-26	WISC 2025613	City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0926 Nb	LOC STR	Dane
5992-11-27	WISC 2025614	City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0926 Sb	LOC STR	Dane
5992-11-28	WISC 2025581	C Madison, John Nolen Drive, Lakeside St to North Shore Dr	LOC STR	Dane

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: \$910,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: August 12, 2025 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time July 23, 2027	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 6%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)
Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

Type of Work: Removals, Milling, Grading, Aggregate, Conc & Asphalt Pvm, Replace Structure, Sign Structure, Curb & Gutter, Conc Sidewalk, Storm, Erosion & Traffic Control, Permanent Signing, Pvm Marking, Lighting, Traffic Signals, Water, Retaining Wall, Restoration.	For Department Use Only
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

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.

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://wisconsin.gov/Pages/doing-business/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://wisconsin.gov/Pages/doing-business/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:
 4. Have a properly executed annual bid bond on file with the department.
 5. 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 ExpediteTM generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the ExpediteTM 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.

B 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)

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]

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.....	6
2.	Scope of Work.....	6
3.	Prosecution and Progress.....	7
4.	Lane Rental Fee Assessment.....	13
5.	Traffic.....	14
6.	Holiday and Special Event Work Restrictions.....	18
7.	Utilities.....	19
8.	Other Projects.....	21
9.	Railroad Insurance and Coordination - Wisconsin and Southern Railroad Company.....	22
10.	Hauling Restrictions.....	25
11.	Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.....	25
12.	Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges.....	25
13.	Information to Bidders, Waterway Marker Permit.....	26
14.	Information to Bidders, Trans 29 Permit.....	26
15.	Environmental Protection, Aquatic Exotic Species Control.....	26
16.	Construction Over or Adjacent to Navigable Waters.....	27
17.	Environmental Protection – Rusty Patched Bumble Bee.....	27
18.	Erosion Control Structures.....	27
19.	Erosion Control.....	27
20.	Notice to Contractor, Contamination Beyond Construction Limits.....	28
21.	Notice to Contractor, Monitoring of Railroad Structure.....	28
22.	Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.....	29
23.	Notice to Contractor, Electronic Load Tickets.....	30
24.	Coordination with Businesses and Residents.....	30
25.	Health and Safety Requirements for Workers Remediating Petroleum Contamination.....	31
26.	Preservation of Existing Trees.....	31
27.	General Provisions for City of Madison Storm Sewer.....	32
28.	General Provisions for City Conduit Installation.....	34
29.	General Provisions for City Traffic Signals.....	34
30.	General Provisions for City Electrical Systems.....	35
31.	Electrical Work By Others.....	37
32.	Removing Navigational Markers, Item 204.9060.S.001.....	38
33.	Removing Street Light Assembly, Item 204.9060.S.002; Removing Traffic Signal (John Nolen Drive & North Shore Drive), Item 204.9060.S.003; Removing Traffic Signal (John Nolen Drive & Broom Street), Item 204.9060.S.004.....	38
34.	Removing Inlet Covers, Item 204.9060.S.005.....	39
35.	Removing Bicycle Counter Base, Item 204.9060.S.006.....	39

36.	Removing or Abandoning Existing Conduit, Item 204.9090.S.001; Removing Electrical Cables from Existing Conduit, Item 204.9090.S.002.	40
37.	Removing Railing and Bases, Item 204.9090.S.003.	40
38.	Removing Underdrain 6-Inch, Item 204.9090.S.004.	41
39.	QMP Base Aggregate Dense 1 1/4-Inch Compaction, Item 371.2000.S.....	41
40.	Paving In Echelon.	47
41.	QMP HMA Pavement Nuclear Density.	47
42.	Stamping Colored Concrete, Item 405.1000.....	50
43.	Cold Patch, Item 495.1000.S.	51
44.	Ice Hot Weather Concreting, Item 501.1000.S.	52
45.	Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.	52
46.	Polymer Overlay, Item 509.5100.S.	54
47.	Concrete Staining B-13-924 NB, Item 517.1010.S.001; Concrete Staining B-13-924 SB, Item 517.1010.S.002; Concrete Staining B-13-926 NB, Item 517.1010.S.003; Concrete Staining B-13-926 SB, Item 517.1010.S.004; Concrete Staining B-13-930 NB, Item 517.1010.S.005; Concrete Staining B-13-930 SB, Item 517.1010.S.006; Concrete Staining B-13-932, Item 517.1010.S.007; Concrete Staining B-13-933, Item 517.1010.S.008; Concrete Staining B-13-934, Item 517.1010.S.009; Concrete Staining R-13-407, Item 517.1010.S.010; Concrete Staining R-13-408, Item 517.1010.S.011; Concrete Staining R-13-409, Item 517.1010.S.012.	59
48.	Concrete Sidewalk 7-Inch, Item 602.0420.	61
49.	Adjusting Manhole Covers, Item 611.8110.	61
50.	Cover Plates Temporary, Item 611.8120.S.....	61
51.	Fence Safety, Item 616.0700.S.	62
52.	Silt Fence Heavy Duty, Item 628.1530.S; Silt Fence Heavy Duty Maintenance, Item 628.1535.S.....	62
53.	Erecting State-Owned Signs Type II, Item 638.3620.....	64
54.	Field Facilities	64
55.	Nighttime Work Lighting-Stationary.	65
56.	Connected Arrow Board, Item 643.0810.S.	66
57.	Connected Work Zone Start and End Location Markers, Item 643.1220.S.....	67
58.	Install Conduit Into Existing Item, Item 652.0700.S.	68
59.	Lamp, Ballast, LED, Switch Disposal by Contractor, Item 659.5000.S..	69
60.	Installing and Maintaining Bird Deterrent System Station 88+50, Item 999.2000.S.001; Installing and Maintaining Bird Deterrent System Station 108+00, Item 999.2000.S.002; Installing and Maintaining Bird Deterrent System Station 113+00, Item 999.2000.S.003.	70
61.	Pea Gravel 3/8-Inch, Item SPV.0035.001.....	73
62.	Engineered Soil, Item SPV.0035.002.	73
63.	HPC Masonry Structures, Item SPV.0035.201.	74
64.	Temporary RRFB, Item SPV.0045.001.....	78
65.	Dewatering Project 5992-11-21, Item SPV.0060.001; Dewatering Project 5992-11-22, Item SPV.0060.002; Dewatering Project 5992-11-23, Item SPV.0060.003; Dewatering Project 5992-11-24, Item SPV.0060.004; Dewatering Project 5992-11-25, Item SPV.0060.005; Dewatering Project 5992-11-26, Item SPV.0060.006; Dewatering Project 5992-11-27, Item SPV.0060.007; Dewatering Project 5992-11-28, Item SPV.0060.008.	80
66.	Settlement Monitoring, Item SPV.0060.009.....	82
67.	Precast Sign Post Base, Item SPV.0060.010.	84

68.	Sign Post Base for Concrete Installation, Item SPV.0060.011.....	85
69.	Special Sign Base, Item SPV.0060.012.....	86
70.	Inlet Cover Type H Special, Item SPV.0060.013; Inlet Cover Type H-S Special, Item SPV.0060.014.	87
71.	Manhole Cover Type J Special, Item SPV.0060.015.....	87
72.	Construction Staking Project 5992-11-21, Item SPV.0060.016; Construction Staking Project 5992-11-22, Item SPV.0060.017, Construction Staking Project 5992-11-23, Item SPV.0060.018; Construction Staking Project 5992-11-24, Item SPV.0060.019; Construction Staking Project 5992-11-25, Item SPV.0060.020; Construction Staking Project 5992-11-26, Item SPV.0060.021; Construction Staking Project 5992-11-27, Item SPV.0060.022; Construction Staking Project 5992-11-28, Item SPV.0060.023.	88
73.	Utility Line Opening (ULO), Item SPV.0060.024.....	88
74.	Remove and Reinstall Historical Monument, Item SPV.0060.025.....	89
75.	Access Gate 3-Foot Polymer-Coated, Item SPV.0060.026.....	90
76.	Catch Basins 6-FT X 6-FT, Item SPV.0060.027; Catch Basins 6-FT X 10-FT, Item SPV.0060.028.	91
77.	Manholes 6-FT X 10-FT, Item SPV.0060.0029.....	91
78.	Adjust Sanitary Sewer Access Structure, Item SPV.0060.030.	92
79.	Permanent Navigational Buoys, Item SPV.0060.031.	92
80.	Furnish & Install Water Valve 12-Inch, Item SPV.0060.032.	93
81.	Fishing Dock Abutment, Item SPV.0060.033.....	93
82.	Underdrain Cleanout 8-Inch, Item SPV.0060.034.	94
83.	Standpipe 12-Inch With Grate, Item SPV.0060.035.	95
84.	Concrete Supports, Item SPV.0060.036.....	95
85.	Install Cast in Place Strut Channel SPV.0060.201.	96
86.	Electrical Pull Box Type I, Item SPV.0060.301; Electrical Pull Box Type III, Item SPV.0060.302 Electrical Pull Box Type V, Item SPV.0060.303; Electrical Pull Box Type VII, Item SPV.0060.304.....	96
87.	Concrete Bases Type GR, Item SPV.0060.305; Concrete Bases Type LB-2, Item SPV.0060.306; Concrete Bases Type LB-3R, Item SPV.0060.307; Concrete Bases Type LB-8R, Item SPV.0060.308; Concrete Bases Type P, Item SPV.0060.309; Concrete Bases Type Offset, Item SPV.0060.310.	97
88.	Transformer Base 16-Inch Steel, Item SPV.0060.311.....	98
89.	Pole 30-Foot, 11 Gauge Staggered Twin Mount, Item SPV.0060.312.....	99
90.	Pole 20-Foot, 7 Gauge, Item SPV.0060.313; Pole 30-Foot, 7 Gauge Twin Mount, Item SPV.0060.314; Pole 30-Foot, 11 Gauge Single Mount, Item SPV.0060.315; Pole 30-Foot, 11 Gauge Twin Mount, Item SPV.0060.316.	100
91.	USSL Luminaire and Mounting Bracket Type 1, Item SPV.0060.317; USSL Luminaire and Mounting Bracket Type 2, Item SPV.0060.318.....	101
92.	Traffic Signal Trombone Arm Aluminum 25-Foot, Item SPV.0060.320; Traffic Signal Trombone Arm Aluminum 12-Foot, Item SPV.0060.321; Traffic Signal Trombone Arm Aluminum 18-Foot, Item SPV.0060.322; Traffic Signal Trombone Arm Aluminum 22-Foot, Item SPV.0060.323.....	102
93.	Traffic Signal Heads 12-Inch, 3-Section, Item SPV.0060.324; Traffic Signal Heads 12-Inch, 4- Section, Item SPV.0060.325; Traffic Signal Heads 16-Inch Pedestrian with Countdown, Item SPV.0060.326.	103
94.	Backplates Signal Face, 3-Section 12-Inch, Item SPV.0060.327; Backplates Signal Face, 4-Section 12-Inch, Item SPV.0060.328.....	104
95.	Install City Furnished Traffic Signal Cabinet and Controller, Item SPV.0060.329.....	105
96.	Optical Signal Preempt, Item SPV.0060.330.....	106

97.	Traffic Signal Ethernet Switch, Item SPV.0060.331.	106
98.	No Right Turn Blank Out Sign, Item SPV.0060.332.	107
99.	Lighting Control Cabinet, Item SPV.0060.333.	107
100.	Non-Intrusive Vehicle Detection System, Item SPV.0060.334.	109
101.	Furnish & Install APS System (John Nolen Drive & North Shore Drive), Item SPV.0060.335; Furnish & Install APS System (John Nolen Drive & Broom Street), Item SPV.0060.336.....	115
102.	Temporary Traffic Signals (John Nolen Drive & North Shore Drive), Item SPV.0060.337; Temporary Traffic Signals (John Nolen Drive & Broom Street), Item SPV.0060.338.....	116
103.	Temporary Lighting, John Nolen Drive, Item SPV.0060.339.	118
104.	Temporary Fiber, John Nolen Drive, Item SPV.0060.340.	120
105.	Install 4" Bike Signal Head, Item SPV.0060.341.	122
106.	Fiber Optic Fusion Splice – 1 to 12 Per Location, Item SPV.0060.342; Fiber Optic Fusion Splice – 97 to 144 Per Location, Item SPV.0060.343; Fiber Optic Fusion Splice – > 144 Per Location, Item SPV.0060.344.	122
107.	24x24x12 Junction Box, Item SPV.0060.345.....	123
108.	24x24x12 Junction Box, Item SPV.0060.345.....	123
109.	Pavement Cleanup, Item SPV.0075.001.	124
110.	Concrete Curb & Gutter 24-Inch Type A, Item SPV. 0090.001; Concrete Curb & Gutter 24-Inch Type D, Item SPV.0090.002; Concrete Curb & Gutter 36-Inch Type A, Item SPV.0090.003; Concrete Curb & Gutter 24-Inch Special, Item SPV.0090.004.	125
111.	Sign Post, Item SPV.0090.005; Reflective Sign Post, Item SPV.0090.006.....	125
112.	Railroad Storm Sewer Box 3-FT X 6-FT, Item SPV.0090.007.....	126
113.	Storm Sewer Box 3-FT X 6-FT, Item SPV.0090.008.	126
114.	Temporary Asphaltic Curb, Item SPV.0090.009.	127
115.	Fence Chain Link Polymer Coated, Item SPV.0090.010.	127
116.	Marking Stop Line Epoxy 24-Inch, Item SPV. 0090.011.....	128
117.	Furnish and Install Watermain Pipe & Fittings 12-Inch, Item SPV.0090.012.	128
118.	Piling CIP Concrete 18 x 0.5-Inch, Item SPV.0090.201.	129
119.	Loop Detector Lead-In Cable Special, Item, SPV.0090.301.....	129
120.	Fiber Optic Cable 288-Count, Item SPV.0090.302.	130
121.	Electrical Wire Lighting 14-3 UF Grounded, Item, SPV.0090.303.	131
122.	Cut in Bicycle Loop Detection, Item SPV.0090.304.....	131
123.	Boring and Jacking Casing Pipe Smooth Steel 12-Inch, Item SPV.0090.305.....	132
124.	Fiber Optic Cable 12-Count, Item SPV.0090.306.	133
125.	Fiber Optic Cable 24-Count, Item SPV.0090.307.	134
126.	Flat Stone Blocks, Item SPV.0165.001.....	135
127.	Directional Guidance Plates, Item SPV.0165.002.	136
128.	Steel Reinforced Concrete Sidewalk 7-Inch, Item SPV.0165.003.....	137
129.	Stamping Asphalt, Item SPV.0165.004.....	137
130.	Pavement Support System, Item SPV.0165.005.	138
131.	Cut-Stone Boulders, Item SPV.0165.201.	142
132.	Temporary Wire Face Walls, Item SPV.0165.202.	143
133.	Longitudinal Grooving Bridge Deck SPV.0165.203.	151

134.	Enhanced Turbidity Barrier, Item SPV.0180.001.....	152
135.	Impermeable Membrane, Item SPV.0180.002.....	153
136.	Shoreline Revetment Stone, Item SPV.0195.001.....	153

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project ID 5992-11-21, City of Madison, John Nolen Drive, Lakeside St to North Shore Dr, Local Street, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-22, City of Madison, John Nolen Drive, Monona Bay Bridge B-13-930 SB, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-23, City of Madison, John Nolen Drive, Monona Bay Bridge B-13-930 NB, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-24, City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0924 NB, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-25, City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0924 SB, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-26, City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0926 NB, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-27, City of Madison, John Nolen Drive, Lake Monona Bridge B-13-0926 SB, Dane 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, 2025 Edition, as published by the department, and these special provisions.

Perform the work under this construction contract for Project ID 5992-11-28, C Madison, John Nolen Drive, Lakeside St to North Shore Dr, Local Street, Dane 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, 2025 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 (20250108)

2. Scope of Work.

The work under this contract shall consist of removals, excavation common, storm sewer, base aggregate, HMA pavement, concrete pavement, concrete curb and gutter, concrete sidewalk, erosion control, traffic control, restoration, shoreline revetment, pavement marking, polymer overlays, permanent signing, street lighting, temporary and permanent traffic signals, B-13-924 NB, B-13-924 SB, B-13-926

NB, B-13-926 SB, B-13-930 NB, B-13-930 SB, B-13-932, B-13-933, B-13-934, S-13-579, R-13-407, R-13-408, R-13-409, 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.

A General

Begin work within 10 calendar days after the engineer issues a written notice to do so.

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

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

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

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

Be advised that there may be multiple mobilizations and/or remobilizations to complete construction operations, for example such items as: HMA pavement, concrete curb and gutter, traffic control, signing, pavement marking, traffic signals, street lighting, finishing items and other incidental items related to the staging. No additional payment will be made, by the department, for additional mobilizations.

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

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

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

Fish Spawning

There shall be no instream disturbance of Lake Monona Bay and Lake Monona throughout the project as a result of construction activity under or for this contract, from March 1st to June 15th, both dates inclusive, in order to avoid adverse impacts upon the spawning of warm water fish species.

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.

Migratory Birds

Swallow or other migratory bird nests have been observed on or under the existing structure(s). All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from May 1 to August 31.

See below for information on affected structure(s). As a last resort, apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring.

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining one suitable deterrent device on the following structure(s) prior to nesting activity under the bid item Installing and Maintaining Bird Deterrent System:

- P-13-753, 88+00'SB' – 89+25'SB'
- B-13-332, 88+00 – 89+25
- P-13-754, 107+25'SB' – 109+00'SB'
- B-13-333, 107+20 – 108+95
- P-13-756, 112+10'SB' – 114+00'SB'
- P-13-755, 112+00 – 114+00

B Contractor Coordination and Advance Notification

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

Hold progress meetings once a week. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work to begin within the next two weeks are to attend and provide a written schedule of the next week(s) operations. Include begin and end dates of specific prime and subcontractor work operations. Invite utilities, City of Madison Engineering, City of Madison Parks, City of Madison Forestry, City of Madison Police and Fire Departments, Metro Transit, Dane County EMS, Dane County Sheriff Marine and Trail Enforcement Bureau, WSOR Railroad representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' schedule, utility conflicts and relocation schedule, evaluation of progress and pay items, and making revisions if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

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

Coordinate with the City of Madison to provide access for garbage collection.

Coordinate with the US Postal Service to provide access for mail delivery.

Notify the City of Madison Engineering Department, City of Madison Police and Fire Departments, Dane County EMS, Monona Terrace, and the Alliant Energy Center at least three days in advance of all traffic switches and closures of existing streets.

Notify business owners and residents at least 2 calendar days prior to restricting access and 3 calendar days prior to closing access. Schedule sidewalk and driveway approach removal and replacement so that the time lapse between removal and replacement is minimal. See the Traffic article of these special provisions for information on residential and business property access.

Notify the City of Madison 7 calendar days prior to the start of a new traffic stage for signal timing and phasing of temporary signals. Contact Jerry Schippa with the City of Madison at 608-266-4761.

Notify Metro Transit 14 calendar days prior to starting Stage 1. Notify Metro Transit one week prior to traffic switches, street closures, and reopening the road to through traffic for bus routing. Contact Tim Sobota at (608) 261-4289.

Notify the City of Madison Engineering and City of Madison Parks Division 10 calendar days prior to closing the Capital City Trail.

Notify the City of Madison Parks Division 10 calendar days prior to closing the existing access to the fishing pier located at 116+15, Right.

Notify the City of Madison 21 calendar days before disrupting any fiber optic cables, vaults, etc. Work includes but is not limited to the install and removals of the temp wood poles, or any activities that would be critical for the City of Madison to adjust fiber connections.

Notify the City of Madison Engineering, Nick Webster (WDNR) at (608)-235-5885, and Eric Heggelund (WNDR) at (608)-228-7927 10 calendar days prior to modifying any navigational channel.

C Portable Changeable Message Signs

Coordinate the locations of portable changeable message signs with the engineer. Obtain acceptance from the engineer for all messages on portable changeable message signs.

Use portable changeable message signs 7 calendar days in advance of and during roadway lane alterations to indicate such alterations and to notify drivers of changing stages and traffic patterns.

Use portable changeable message signs 7 calendar days in advance of and during the closure of any multi use paths to indicate such closures and to notify users of changing traffic patterns.

D Work Restrictions

D.1 General

Do not close traffic lanes on John Nolen Drive, North Shore Drive, and Broom Street outside the allowed time periods specified in the Traffic article of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Existing trees, streetlight poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between trees, hydrants, and poles for the paving and grading equipment.

Do not store equipment, vehicles, or materials on adjacent streets beyond the project limits without specific approval of the engineer.

Lighting (existing, permanent, temporary) shall always be in operation during nighttime hours.

The closure of Northshore Drive and Broom Street will not be allowed simultaneously.

Do not utilize railroad crossing 9110802M (Basset Street Path) to haul materials or drive vehicles across without written approval from WSOR.

D.2 Interim Completions for Road Closures

D.2.1 Interim Completion and Liquidated Damages – Broom Street: 50 Calendar Days

At the beginning of Stage 2A, close Broom Street to through traffic for a maximum of 50 consecutive calendar days. Do not reopen until completing the following work: All work shown in the plans for final completion of Broom Street including lighting and temporary traffic control device to switch traffic to Stage 2B.

If the contractor fails to complete the work necessary to reopen Broom Street to traffic within 50 consecutive calendar days, the department will assess the contractor \$2,500 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 50 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

D.2.2 Interim Completion and Liquidated Damages – North Shore Drive: 60 Calendar Days

At the beginning of Stage 2B, close North Shore Drive to through traffic for a maximum of 60 consecutive calendar days. Do not reopen until completing the following work: All work shown in the plans for final completion of North Shore Drive including lighting and temporary traffic control device to switch traffic to Stage 3.

If the contractor fails to complete the work necessary to reopen North Shore Drive to traffic within 60 consecutive calendar days, the department will assess the contractor \$3,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 60 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

D.2.3 Interim Completion and Liquidated Damages – John Nolen Drive Stage 1: 10 Nights

Close northbound John Nolen Drive between Lakeside Street and North Shore Drive for a maximum of 10 consecutive nights during Stage 1 for installations of temporary culvert pipes and storm sewer, beginning at 7:00 PM, adhering to the peak hour restrictions provided in Lane Rental Fee Assessment and Traffic. See the Traffic Article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment Article will be charged for lane closures outside the allowed time periods. Do not

reopen the roadway until all debris and equipment are removed from the traveled way and its lateral offset or clear zone as defined in the Traffic article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed and temporary pavement is in place.

If the contractor fails to complete the work necessary to complete all work within 10 consecutive nights during Stage 1 for installations of temporary culvert pipes and storm sewer, the department will assess the contractor \$6,500 in interim liquidated damages for each 24-hour period the contract work remains incomplete beyond 7:00 on the 11th night. An entire 24-hour period will be charged for any period of time within each 24-hour increment that the road remains closed beyond 7:00 PM.

D.2.4 Interim Completion and Liquidated Damages – John Nolen Drive Stage 2 Girder Removal: 10 Nights

Close John Nolen Drive between Lakeside Street and North Shore Drive for a maximum of 10 nights during Stage 2 for removing the existing girders of the southbound structures, beginning at 7:00 PM, adhering to the peak hour restrictions provided in Lane Rental Fee Assessment and Traffic. See the Traffic Article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment Article will be charged for lane closures outside the allowed time periods. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its lateral offset or clear zone as defined in the Traffic article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed and temporary pavement is in place.

If the contractor fails to complete the work necessary to complete all work within 10 nights during Stage 2 for removing the existing girders of the southbound structures, the department will assess the contractor \$12,000 in interim liquidated damages for each 24-hour period the contract work remains incomplete beyond 7:00 on the 11th night. An entire 24-hour period will be charged for any period of time within each 24-hour increment that the road remains closed beyond 7:00 PM.

D.2.5 Interim Completion and Liquidated Damages – John Nolen Drive Stage 2 Girder Placement: 10 Nights

Close John Nolen Drive between Lakeside Street and North Shore Drive for a maximum of 10 nights during Stage 2 for placing the new girders of the southbound structures, beginning at 7:00 PM, adhering to the peak hour restrictions provided in Lane Rental Fee Assessment and Traffic. See the Traffic Article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment Article will be charged for lane closures outside the allowed time periods. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its lateral offset or clear zone as defined in the Traffic article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed and temporary pavement is in place.

If the contractor fails to complete the work necessary to complete all work within 10 nights during Stage 2 for placing the new girders of the southbound structures, the department will assess the contractor \$12,000 in interim liquidated damages for each 24-hour period the contract work remains incomplete beyond 7:00 on the 11th night. An entire 24-hour period will be charged for any period of time within each 24-hour increment that the road remains closed beyond 7:00 PM.

D.2.6 Interim Completion and Liquidated Damages – John Nolen Drive Stage 3 Girder Removal: 10 Nights

Close John Nolen Drive between Lakeside Street and North Shore Drive for a maximum of 10 nights during Stage 3 for removing the existing girders of the northbound structures, beginning at 7:00 PM, adhering to the peak hour restrictions provided in Lane Rental Fee Assessment and Traffic. See the Traffic Article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment Article will be charged for lane closures outside the allowed time periods. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its lateral offset or clear zone as defined in the Traffic article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed and temporary pavement is in place.

If the contractor fails to complete the work necessary to complete all work within 10 nights during Stage 3 for removing the existing girders of the northbound structures, the department will assess the contractor \$12,000 in interim liquidated damages for each 24-hour period the contract work remains incomplete beyond 7:00 on the 11th night. An entire 24-hour period will be charged for any period of time within each 24-hour increment that the road remains closed beyond 7:00 PM.

D.2.7 Interim Completion and Liquidated Damages – John Nolen Drive Stage 3 Girder Placement: 10 Nights

Close John Nolen Drive between Lakeside Street and North Shore Drive for a maximum of 10 nights during Stage 3 for placing the new girders of the northbound structures, beginning at 7:00 PM, adhering to the peak hour restrictions provided in Lane Rental Fee Assessment and Traffic. See the Traffic Article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment Article will be charged for lane closures outside the allowed time periods. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its lateral offset or clear zone as defined in the Traffic article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed and temporary pavement is in place.

If the contractor fails to complete the work necessary to complete all work within 10 nights during Stage 3 for placing the new girders of the northbound structures, the department will assess the contractor \$12,000 in interim liquidated damages for each 24-hour period the contract work remains incomplete beyond 7:00 on the 11th night. An entire 24-hour period will be charged for any period of time within each 24 hour increment that the road remains closed beyond 7:00 PM.

D.2.8 Interim Completion and Liquidated Damages – John Nolen Drive Stage 4: 2 Nights

Close southbound John Nolen Drive between Lakeside Street and North Shore Drive for a maximum of 2 consecutive nights during Stage 4 for paving the upper layer of HMA pavement in the southbound lanes of John Nolen Drive, beginning at 7:00 PM, adhering to the peak hour restrictions provided in Lane Rental Fee Assessment and Traffic. See the Traffic Article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment Article will be charged for lane closures outside the allowed time periods. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its lateral offset or clear zone as defined in the Traffic article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed and temporary pavement is in place.

If the contractor fails to complete the work necessary to complete all work within 2 consecutive nights during Stage 4 for paving the upper layer of HMA pavement in the southbound lanes of John Nolen Drive, the department will assess the contractor \$5,750 in interim liquidated damages for each 24-hour period the contract work remains incomplete beyond 7:00 on the 3rd night. An entire 24-hour period will be charged for any period of time within each 24-hour increment that the road remains closed beyond 7:00 PM.

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

D.3 Other

The sidewalk path along the south and north side of Broom Street will be allowed to be closed for 10 consecutive calendar days during Stage 2A for the railroad crossing work. Coordinate the closure with WSOR. Do not reopen the multiuse path until all debris and equipment are removed from the traveled way and all signs, barrels, barricades, and traffic control devices required to close the sidewalk and path along the south and north side of Broom Street are covered, moved, or removed.

Multiuse Path 'BPS' will be allowed to be closed for 10 consecutive calendar days during Stage 2B for the railroad crossing work. Coordinate the closure with WSOR. Do not reopen the multiuse path until all debris and equipment are removed from the traveled way and all signs, barrels, barricades, and traffic control devices required to close Multiuse Path 'BPS' are covered, moved, or removed.

The Capital City Trail will be allowed to be closed and detoured during Stage 3. Do not reopen the path until all debris and equipment are removed from the traveled way and all signs, barrels, barricades, and traffic control devices required to close the Capital City Trail are covered, moved, or removed.

The closure of Northshore Drive and Broom Street will not be allowed simultaneously.

Pedestrian and bike access at the intersection of North Shore Drive and Broom Street must be maintained across John Nolen Drive during Stage 2A and Stage 2B.

Do not open North Shore Drive after Stage 2B until the start of Stage 3.

Do not clear and grub trees between John Nolen Drive and Lake Monona until the Capital City Trail has been detoured in Stage 3.

Do not remove the existing fishing dock abutment located at 116+05, 60' Rt. until the Capital City Trail has been detoured in Stage 3. The City of Madison will remove the floating fishing dock connected to the existing fishing dock abutment.

The navigational channel (Station 107+00 – Station 109+00) will be allowed to be temporarily closed between March 15th and November 1st during specific structure construction operations such as pouring the deck and stripping the false work. Maintain an unrestricted channel with a minimum vertical clearance no lower than the existing vertical clearance and a minimum horizontal clearance of 20 feet. Notify the City of Madison Engineering, Nick Webster (WDNR) at (608)-235-5885, and Eric Heggelund (WDNR) at (608)-228-7927 10 calendar days prior to any change in the navigational channel.

The Capital City Trail will be allowed to be closed and detoured during Stage 3. Do not reopen the path until all debris and equipment are removed from the traveled way and all signs, barrels, barricades, and traffic control devices required to close the Capital City Trail are covered, moved, or removed.

Construct the storm sewer box between structure 120.9 and 120.4 in Stage 2A during the railroads anticipated 10-day closure. Coordinate work operations with WSOR.

Off-peak flagging operations will be allowed for northbound John Nolen Drive during Stage 1 to remove the existing overhead sign structure located at Station 117+65.

Off-peak flagging operations will be allowed for northbound and southbound John Nolen Drive during Stage 4 to install sign structure S-13-579.

Do not pave the southbound upper layer of HMA until Stage 4.

Do not construct the polymer overlays for the southbound structures (B-13-924 SB, B-13-926 SB, B-13-930 SB) until Stage 4.

E Existing Encroachments

There is an encroachment within the right-of-way between Station 11+50'BPN and Station 12+00'BPN' Left that will not be altered by this project. The encroachment consists of a parking lot with landscaping. It is the responsibility of the contractor to avoid this encroachment. The contractor is responsible for any damage to this encroachment and for returning the encroachment to the original condition if any damage occurs.

F Construction General

Typical construction sections are provided in the traffic control plans. Conform with the work zone protection as shown in the typical construction sections. Provide a minimum of 6 feet lateral clearance from the edge of travel lane to the work zone. In areas where 6 feet of lateral clearance cannot be provided, protect work zone with temporary concrete barrier. Provide a maximum 3:1 slope from the edge of the lateral clearance zone to sub-grade excavations. Limit the length of open utility trenches adjacent to the lateral clearance to 100 feet. Backfill or plate utility trenches adjacent to the lateral clearance zone during non-working hours.

G Construction Operations

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

Project 5992-11-21 & Project 5992-11-28

Stage 1 Peak/Off-Peak – Construct crossovers, temporary pavement, temporary pavement marking, and temporary drainage for bi-directional travel.

Stage 2 – Reconstruct southbound John Nolen Drive. Begin construction of S-13-579.

Stage 2A – Reconstruct Broom Street to include the southbound portion of John Nolen Drive

Stage 2B – Reconstruct North Shore Drive to include the southbound portion of John Nolen Drive

Stage 3 – Reconstruct northbound John Nolen Drive including retaining walls R-13-407, R-13-408, and R-13-409 and structures B-13-932, B-13-933, B-13-934. Complete shoreline revetment construction and continue construction of S-13-579.

Stage 4 – Remove crossovers, complete median work, and pave the southbound HMA surface layer. Finish construction of S-13-579.

Project 5992-11-22

Stage 2 – Construct structure B-13-930 SB

Stage 4 – Construct polymer overlay on B-13-930 SB

Project 5992-11-23

Stage 3 – Construct structure B-13-930 NB with polymer overlay

Project 5992-11-24

Stage 3 – Construct structure B-13-924 NB with polymer overlay

Project 5992-11-25

Stage 2 – Construct structure B-13-924 SB

Stage 4 – Construct polymer overlay on B-13-924 SB

Project 5992-11-26

Stage 3 – Construct structure B-13-926 NB with polymer overlay

Project 5992-11-27

Stage 2 – Construct structure B-13-926 SB

Stage 4 – Construct polymer overlay on B-13-926 SB

H Contractor Obligations

Standard spec 105.5.1 (5) Contractor Obligations is revised as follows:

Employ a competent superintendent or designate a representative capable of reading and understanding the contract and experienced in the type of work being performed. The superintendent or designated representative shall be the authorized agent of the contractor and shall have full authority to execute the engineer's directions or instructions without delay. Ensure that the superintendent or designated representative is on the project or immediately accessible on site to the engineer during all hours of each workday. Notify the engineer promptly when replacing the superintendent or designated representative.

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 and roadway restrictions to the engineer as part of the progress schedule.

Coordinate lane and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

B Lane Rental Fee Assessment

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

- \$4,000 per lane, per direction of travel, per hour broken into 15-minute increments

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

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

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

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

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

stp-108-065 (20161130)

5. Traffic.

A General

Accomplish the construction sequence, including the associated traffic control as detailed in the Prosecution and Progress article, the "Traffic Control" section of the plans, and as described in this article.

Before starting work, supply the name and telephone number of a local contact person to the engineer for traffic control repair.

Do not begin or continue any work that closes roadways outside the permitted lane closure times specified in this article.

Do not close John Nolen Drive, North Shore Drive, or Broom Street during the peak hour times provided in this article and as listed in the Prosecution and Progress article of these special provisions. If the contractor closes John Nolen Drive, North Shore Drive, or Broom Street prior to or fails to open lanes during the specified peak hours times, then a fee based upon the Lane Rental Fee Assessment article of these special provisions will be assessed to the contractor.

At times it will be necessary to close John Nolen Drive, North Shore Drive, or Broom Street for work such as making utility connections, placing, maintaining and removing traffic control devices including temporary signals, installing permanent signals, paving and facilitating other construction operations. Perform these closures only during off-peak hours as specified in the Lane Closure section of this article. Request approval from the engineer for these closures of John Nolen Drive, North Shore Drive, or Broom Street in writing at least 3 working days in advance of the requested closure. Include justification for the closure and the anticipated duration of the closure in the request. Do not proceed with the closure if the request is not approved by the engineer.

B Traffic Operations During All Stages

Maintain a minimum of one 10' lane (includes curb pan) of traffic in each direction on John Nolen Drive, North Shore Drive, and Broom Street. Road closures allowed as specified in the Road Closure section of this article and in the Prosecution and Progress article of these special provisions.

Long term single lane closures may be utilized along John Nolen Drive, North Shore Drive, and Broom Street.

Maintain a minimum 10' clear zone where no curb is present along the outside lane of traffic along John Nolen Drive.

Maintain a minimum 4' horizontal offset where curb is present along the outside lane of traffic along John Nolen Drive, North Shore Drive, and Broom Street. Horizontal offset is measured from the lane line.

Maintain traffic on John Nolen Drive, North Shore Drive, and Broom Street on paved concrete or hot mixed asphalt at all times.

Stage 1 Traffic

- John Nolen Drive traffic will be located on the existing outside lanes by utilizing long term inside lane closures in the northbound and southbound direction except for off-peak closures as specified in this article and the Prosecution and Progress article of these special provisions.

- Eastbound North Shore Drive and Broom Street traffic will be located on the existing outside lanes by utilizing long term inside lane closures.
- Westbound North Shore Drive and Broom Street traffic will remain on their existing lanes.
- Capital City Trail traffic will remain on the existing trail.

Stage 2 Traffic

- Northbound John Nolen Drive traffic will remain on the existing northbound outside lane and southbound John Nolen Drive traffic will be located on the existing southbound median lane utilizing a southbound crossover north of Broom Street and north of Lakeside Street. John Nolen Drive nighttime closures will occur as specified in this article and the Prosecution and Progress article of these special provisions.
- Eastbound North Shore Drive and Broom Street traffic remain on the existing outside lane by utilizing long term inside lane closures.
- Westbound North Shore Drive and Broom Street traffic will remain on their existing lanes.
- Capital City Trail traffic will remain on the existing trail.

Stage 2A Traffic

- Northbound John Nolen Drive traffic will remain on the existing northbound outside lane and southbound John Nolen Drive traffic will be located on the existing southbound median lane utilizing a southbound crossover north of Broom Street and north of Lakeside Street. John Nolen Drive off-peak closures will occur as specified in this article and the Prosecution and Progress article of these special provisions.
- Eastbound North Shore Drive traffic will remain on the existing outside lane by utilizing long term inside lane closures. Westbound North Shore Drive traffic will remain on the existing lanes.
- Broom Street will be closed to traffic between W Wilson Street and John Nolen Drive as specified in the Prosecution and Progress article of these special provisions.
- Capital City Trail traffic will remain on the existing trail.

Stage 2B Traffic

- Northbound John Nolen Drive traffic will remain on the existing northbound outside lane and southbound John Nolen Drive traffic will be located on the existing southbound median lane utilizing a southbound crossover north of Broom Street and north of Lakeside Street. John Nolen Drive off-peak closures will occur as specified in this article and the Prosecution and Progress article of these special provisions.
- North Shore Drive will be closed to traffic between S Bedford Street and John Nolen Drive as specified in the Prosecution and Progress article of these special provisions.
- Eastbound Broom Street will be located on the new outside lane by utilizing long term inside lane closures in the eastbound direction. Broom Street westbound traffic will be located on the new lanes.
- Capital City Trail traffic will remain on the existing trail.

Stage 3 Traffic

- Southbound John Nolen Drive traffic will be located on the new southbound outside lane and northbound John Nolen Drive traffic will be located on the new southbound median lane utilizing a northbound crossover north of Lakeside Street and north of Broom Street. John Nolen Drive nighttime closures will occur as specified in this article and the Prosecution and Progress article of these special provisions.
- Eastbound North Shore Drive traffic will be located on the new outside lane by utilizing long term inside lane closures.
- Eastbound Broom Street traffic will remain on the new outside lane by utilizing long term inside lane closures.
- Westbound North Shore Drive and Broom Street traffic will be located on the new lanes.

- Northbound Capital City Trail traffic will be detoured around Monona Bay to North Shore Drive, to the new path connection to Basset Street, to W Wilson Street, to Broom Street, and connecting to the existing Capital City Trail at Broom Street. Southbound Capital City Trail traffic will use the same detour in reverse.

Stage 4 Traffic

- John Nolen Drive traffic will be located on the new outside lanes by utilizing long term inside lane closures in the northbound and southbound direction except for nighttime closures as specified in this article and the Prosecution and Progress article of these special provisions.
- Eastbound North Shore Drive and Broom Street traffic will remain on the new outside lanes by utilizing long term inside lane closures.
- Westbound North Shore Drive and Broom Street traffic will remain on the new lanes.
- Capital City Trail traffic will be located on the new path.

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

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

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

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

Do not deliver or store materials and equipment within open travel lanes, open side roads or open sidewalks and paths during any stage of construction. Temporary lane closures and/or halting of traffic within open roadways and pedestrian paths require flaggers and will not be permitted outside of the permitted closure times listed in this article.

Conduct operations in a manner that will cause the least interference to traffic and pedestrian movements. Maintain vehicle and pedestrian access at all times to buildings within the limits of construction. Access to residential parcels may be restricted for up to one calendar day in order to construct driveways in front of residential access points. Notify property owners at least 2 working days prior to closing their access point. Maintaining property access is incidental to the Traffic Control bid item.

C Road Closures

Road closures on John Nolen Drive, North Shore Drive, and Broom Street may be permitted during off-peak hours as defined below in this article. Times listed for road closures include setup and breakdown of any equipment and traffic control devices.

Off-Peak Hours:

7:00 PM to 6:00 AM Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday

Request approval from the engineer for all road closures. Include justification for the road closure and the anticipated duration in the request. A request does not constitute approval. Terminate road closures prior to the end of the Permitted Road Closure Times. Failure to obtain approval or reopen closed roads at the required time shall be subject to assessments specified under the Prosecution and Progress and Lane Rental Fee Assessment article of these special provisions.

Provide barricades, drums, and traffic control signs for use during all road closures in accordance to the MUTCD.

Flagging operations will be allowed along all roads, to accommodate the roadway and structure work between one (1) hour after sunrise and one (1) hour before sunset and those times listed in the Prosecution and Progress article of these special provisions. Use sunset and sunrise information from the nearest National Weather Service office. Delays due to flagging may not exceed 5 minutes in any

direction. The engineer will have the ability to suspend work activities in the event any undesirable traffic congestion develops that has the potential to cause lengthy motorist delay or unsafe working conditions.

D Local Access to Project

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

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

- Number of Lanes: One (1) lane in each direction
- Lane Width: Minimum of ten (10) foot width OR one lane roadway with flagging
- Driving Surface: Acceptable driving surfaces include base aggregate dense, asphaltic surface temporary, HMA pavement, concrete pavement and milled surfaces.

E Residential and Business Property Access

Maintain vehicular access at all times to all driveways, parking lots, public alleys, and side roads throughout construction; except during paving and utility installation operations occurring in the immediate vicinity of the access location. Maintain and keep open access locations, where alternative access is not available at all times by closing one driveway at a time, building half the driveway at a time and/or plating concrete work. Plating of concrete work, as directed by the engineer, is incidental to the item requiring the plating. When an access or parking area must be limited due to construction operations, notify the engineer, property owners, and occupants of the premises at least two days prior to the beginning of the construction operation. Complete the work in a reasonable time and manner to resume access to the driveway or side road. In parking lots that are being reconstructed, stage operations so that parking and access is maintained on existing or proposed base aggregate or pavement.

Coordinate with each business for the best time to construct driveways and sidewalks so as not to interrupt business operations during open hours.

Maintain emergency vehicle access and delivery vehicle access at all times to all properties throughout construction; except during paving and utility installation operations occurring in the immediate vicinity of the property. When access must be limited due to construction operations, notify the police and fire departments, the engineer and property owners and occupants at least two days prior to the beginning of the construction operation. Complete the work in a reasonable time and manner to resume access to the property.

For vehicle access, furnish, construct, and maintain a ramp of compacted base aggregate dense between closed side streets or open cross streets or driveway access and the work zone at all times, including down to excavated subgrade. The maximum ramp slope shall be 12% and delineated with traffic control drums. Use drums, barricades, flexible tubular markers, and safety fence to direct vehicular traffic in the work zone if required by the engineer. Protect and delineate hazards such as open excavations, abrupt drop-offs, and exposed manholes, inlets, and hydrants, with wedged material, drums, barricades, and safety fence as shown in the plans, special provisions, or as directed by the engineer.

Maintaining property access as described above is considered incidental to the Traffic Control bid item.

F Pedestrian Access

Maintain pedestrian access to residences, businesses, public parking lots, and schools or provide where necessary, as directed by the engineer. Provide a temporary surface for pedestrian access at all times in areas of sidewalk construction. Construct the temporary pedestrian surface to meet Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements consisting of temporary pedestrian surface asphalt, temporary pedestrian surface matting, temporary pedestrian surface plate, or alternative material as approved by the engineer. Gravel or base course material is not acceptable. Maintain ADAAG accessible pedestrian access surfaces and walkways that are free from mud, sand, and construction debris.

Furnish and install temporary crosswalks for maintaining crosswalks through the construction zone.

Furnish and install temporary curb ramps when existing or finished curb ramps are not in place.

Furnish and install temporary pedestrian barricade along existing and temporary sidewalk surface where there are drop-offs greater than 6-inches within 1-foot of the sidewalk edge and a grass or turf buffer does not exist to delineate the edge of sidewalk for vision impaired pedestrians.

Traffic control drums or barrels shall not be used for guidance along pedestrian access routes.

If additional special pedestrian access needs are identified along the project, provide for that access as directed by the engineer.

G Construction Access

All construction access is subject to the approval of the engineer. Construction traffic cannot travel counter-directional adjacent to John Nolen Drive traffic except behind concrete barrier temporary precast.

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

Delivery of equipment to John Nolen Drive requiring the use of a semi-tractor and trailer shall only occur during those hours identified as John Nolen Drive off-peak hours.

H Winter Maintenance

During winter months construction is anticipated to remain in the work zone or project area.

Snow may be plowed from the traveled roadway, sidewalk, bus stops, or Capital City Trail into the work site by the maintaining authority. The contractor is responsible for any snow removal from the work site that may be required to continue work operations.

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

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

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

I Madison Metro Transit Access and Bus Stops

Maintain pedestrian access, according to current ADAAG, within the project limits to all Madison Metro Transit bus stop locations as shown in the plans. Place a temporary bus stop as shown in the plans and as directed by the engineer. Do not close a bus stop without approval of the engineer.

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 John Nolen 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 Wednesday, November 26, 2025 to 6:00 AM Monday, December 1, 2025 Thanksgiving;
- From 6:00 AM Wednesday, December 24, 2025 to 6:00 AM Friday, December 26, 2025 Christmas;
- From noon Wednesday, December 31, 2025 to 6:00 AM Friday, January 2, 2026 New Years Day;
- From 6:00 AM Saturday, May 9, 2026 to 6:00 AM Sunday, May 10, 2026 UW-Madison Graduation;
- From noon Friday, May 22, 2026 to 6:00 AM Tuesday, May 26, 2026 Memorial Day;
- From noon Friday, July 3, 2026 to 6:00 AM Monday, July 6, 2026 Independence Day;
- From noon Friday, September 4, 2026 to 6:00 AM Tuesday, September 8, 2026 Labor Day;
- From 6:00 AM Saturday, September 12, 2026 to 6:00 AM Monday, September 14, 2026 Ironman Triathlon;
- From noon Wednesday, November 25, 2026 to 6:00 AM Monday, November 30, 2026 Thanksgiving;
- From 6:00 AM Thursday, December 24, 2026 to 6:00 AM Friday, December 26, 2026 Christmas;
- From noon Wednesday, December 31, 2026 to 6:00 AM Friday, January 2, 2027 New Years Day;

- From 6:00 AM Saturday, May 8, 2027 to 6:00 AM Sunday, May 9, 2027 UW Madison Graduation;
- From noon Friday, May 28, 2027 to 6:00 AM Tuesday, June 1 27, 2027 Memorial Day;
- From noon Friday, July 3, 2027 to 6:00 AM Tuesday, July 6, 2027 Independence Day;
- From noon Friday, July 3, 2027 to 6:00 AM Tuesday, July 6, 2027 Independence Day;
- During UW-Madison 2025 and 2026 home football games from 4 hours before to 4 hours after the game (contractor to verify schedule).
- During the City of Madison's "Ride the Drive" event in August of 2026 from 4 hours before to 4 hours after the vent (contractor to verify date).

stp-107-005 (20210113)

7. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220.

The utility work plan includes additional detailed information regarding the location of known discontinued, relocated, or removed utility facilities. These can be requested from the department during the bid preparation process or from the project engineer after the contract has been awarded and executed.

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. Follow-up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Any utility facility locations (stations, offsets, elevations, depths) listed in this article are approximate.

Project ID 5992-11-21

This contract does not come under the provision of Administrative Rule Trans 220.

The utility work plan includes additional detailed information regarding the location of known discontinued, relocated, or removed utility facilities. These can be requested from the department during the bid preparation process or from the project engineer after the contract has been awarded and executed.

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. Follow-up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Any utility facility locations (stations, offsets, elevations, depths) listed in this article are approximate.

ATC (ELCTT) – has existing underground transmission facilities along the west side of John Nolen Drive from Station 99+00 'SB' to Station 125+13 'SB'. ATC also has an existing transmission facility crossing the Bassett Street path connection at Station 16+50 'BPN'.

ATC will perform the following during construction:

- Move the existing test station manhole located at Station 14+00 'NSW' 16' LT to the proposed North Shore Drive median at Station 13+75 'NSE' 8' LT. This move will require approximately 1 working day.
- Adjust the manhole located at Station 14+00 'NSW' 25' LT to proposed median elevation. This adjustment will require approximately 1 working day.

Notify ATC as stated above prior to structure work on B-13-924 SB and B-13-926 SB to locate the underwater transmission facility. Locating the underwater facility will require an ATC underground expert to be on site.

Notify ATC as stated above prior to dry bore and jacking of steel casing of electrical lighting/signal conduit at North Shore Drive and Broom Street intersections. The installation of the conduit will require an ATC underground expert to be on site.

Notify ATC as stated above prior to installing pipes between storm sewer structures 114.12 – 114.13, 114.17 – 114.19, and 120.9 – 120.4, special cover will be required due to the proximity of facilities. ATC will provide special cover.

AT&T Wisconsin (COMLN) – has underground communications facilities along the east side of John Nolen Drive from Station 71+00 'NB' to Station 127+00 'NB'.

AT&T Wisconsin will perform the following prior to stage 3 construction:

- Discontinue underground facilities on the east side of John Nolen Drive.
- Remove fiber optic cable and related hardware on all structures.

AT&T Wisconsin has 3 utility manholes at approximately Station 89+75 'NB' RT (2) and Station 106+50 'NB' RT (1). Removal of these manholes will be completed during construction under the contract bid item Removing Manholes.

Notify AT&T as stated above prior to the start of Stage 3 to ensure facilities within the project limits are discontinued.

Madison Metropolitan Sanitary District (MMSD) (SEWR) – has an existing facility along North Shore Drive from project start to Station 11+50 'NSE' RT. The existing facility crosses North Shore Drive into Brittingham Park from Station 11+50 'NSE' RT to Station 13+50 'NSW' LT. From Brittingham Park the existing facility crosses Broom Street at Station 701+00 'BSE'. MMSD has no anticipated conflicts with this facility.

Notify MMSD as stated above when working within 5 feet of facilities to arrange inspection of work.

Spectrum Communications (COMLN) – has underground communications facilities along the east side of John Nolen Drive from Station 71+00 'NB' to Station 127+30 'NB'.

Spectrum Communications will perform the following during stage 2:

- Bore under John Nolen Drive to the west side of the road at Station 79+40 'NB'. Underground facilities from Station 70+60 'NB' to Station 79+40 'NB' will remain in place and are not anticipated to conflict with construction activities.
- Install new underground facilities from Station 79+45 'SB' LT to Station 87+85 'SB' LT. Spectrum Communications to bore under southbound John Nolen Drive at Station 87+85 'SB' to the median and cross on structure B-13-930 SB. Spectrum Communications to cross under southbound John Nolen Drive back to west side of road at Station 89+60 'SB'.
- Install new underground facilities from Station 89+60 'SB' LT to Station 106+95 'SB' LT. Spectrum Communications to bore under southbound John Nolen Drive at Station 106+95 'SB' to the median and cross on structure B-13-924 SB. Spectrum Communications to continue in the median and cross on structure B-13-926 SB. The new facilities will cross under southbound John Nolen Drive back to the west side of road at Station 114+35 'SB'.
- Bore under North Shore Drive at Station 13+75 'NSE'. The underground facilities will continue on the west side of John Nolen Drive until Broom Street where they cross at Station 701+60 'BSE'.
- Install underground facilities on the west side of John Nolen Drive and north of Broom Street to Station 127+30 'SB' LT. The new facilities will intercept the existing facilities at station 127+30 'SB' LT. Spectrum Communications to discontinue crossing under John Nolen Drive at Station 127+30 'SB'.
- After new underground facilities are installed and activated, Spectrum Communications will discontinue underground facilities along John Nolen Drive from Station 79+40 'NB' RT to 127+10 'NB' RT.
- The relocations described above will require approximately 60 working days.

Notify Spectrum Communications as noted above prior to beginning Stage 2 for installation of facilities along the west side of John Nolen Drive. Notify Spectrum Communications as noted above when the bridge conduit extension end point is staked and when the conduit is available to the utility on structures B-13-930 SB, B-13-924 SB, and B-13-926 SB.

Once Spectrum Communications has installed and tested the new facilities, 30 calendar days will be required to allow Spectrum Communications time to notify customers about service outages. Spectrum Communications will complete the transition to new facilities after the 30 calendar days. This work is anticipated to take 3 working days.

Spectrum Communications will perform the following during stage 3:

- Remove existing manhole at Station 71+60 'NB' 79' RT and replace at Station 71+60 'NB' 68' RT. This move will require 5 working days to complete after the existing sidewalk has been removed.

Notify Spectrum Communications as noted above when the existing path is removed at 71+60 'NB' 79' RT to construct the new manhole at Station 71+60 'NB' 68' RT.

Spectrum Communications has 5 utility manholes at approximately Station 87+75 'NB' RT (2), Station 106+50 'NB' RT (1), and Station 114+60 'NB' RT (2). Removal of these manholes will be completed during construction under the contract bid item Removing Manholes.

Verizon Business (COMLN) – has an existing underground communications facility along the west side of John Nolen Drive from Station 114+50 'SB' to Station 129+00 'SB'. Relocations will take approximately 20 working days.

Verizon Business will perform the following during construction:

- Install underground facilities that cross under North Shore Drive at Station 13+75 'NSE' and continue on the west side of John Nolen Drive until Broom Street.
- Install underground facilities that cross Broom Street at Station 701+75 'BSE'. After crossing under Broom Street, the underground facilities continue on the west side of John Nolen Drive to north project limits.

Other Utilities

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

City of Madison Engineering (COMLN)

City of Madison Engineering (ELCTY)

City of Madison Parks (ELCTY)

Lumen/CenturyLink (COMLN)

Madison Gas and Electric (MG&E) (ELCTY)

Madison Gas and Electric (MG&E) (GSPTR)

WIN Technology (COMLN)

Project ID 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

All coordination was completed under Project 5992-11-21.

Work By Others.

The following have facilities within the project limits; however, no conflicts are anticipated:

Wisconsin Department of Administration (COMLN)

8. Other Projects.

Monona Terrace

The City of Madison will be conducting a lighting and concrete repair/replacement project(s) by others along John Nolen Drive starting under the Monona Terrace and continuing to the intersection of John Nolen Drive and E. Wilson Street. The project by others is expected to utilize multi lane closures in the northbound and southbound direction. The project by others is expected to start in the fall of 2025 and complete construction in the summer of 2026. Coordinate with the City of Madison to synchronize lane closures along John Nolen Drive. Notify David Hansen, 608-266-4589, at the City of Madison 14 calendar days prior to starting Stage 1.

Madison Lakeway

The City of Madison will be conducting a Lake Monona shoreline project by others as shown in the plans. The project by others is expected to be constructed in 2027. Coordination will be required for but not limited to access, storage, erosion control, revetment construction, pavement support system, and tree plantings. Notify Mike Sturm, 608-267-4921, at City of Madison Parks 30 calendar days prior to starting Stage 3.

9. Railroad Insurance and Coordination - Wisconsin and Southern Railroad Company.

A. Description

Comply with standard spec 107.17 for all work affecting Wisconsin and Southern 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 Watco Companies, L.L.C, and its affiliates subsidiaries, and assigns.

Notify evidence of the required coverage, and duration to Justin Mahr, Senior Manager Real Estate - Contracts; 315 W. 3rd Street, Pittsburg, KS 66762; Telephone (402) 651-8238; E-mail: justin.mahr@watco.com

Also send a copy to the following: Teri Beckman, SW Madison Region Railroad Coordinator; 2101 Wright Street, Madison, WI 53704; Telephone (608) 733-1923; E-mail: teri.beckman@dot.wi.gov

Include the following information on the insurance document:

- Project ID: 5992-11-21
- Work Performed on or within 50' of RR ROW: Pavement replacement and reconstruction of roadway.

#	Route Name	City/County	Crossing ID	RR Subdivision	RR Milepost
1	North Shore Drive	Madison/Dane	177817F	Reedsburg	137.63
2	Broom Street	Madison/Dane	177818M	Reedsburg	137.74
3	Broom Street	Madison/Dane	392251A	Prairie	138.37

A.2 Train Operation

#	Passenger Train Volume	Passenger Train Speed	Freight Train Volume	Freight Train Speed	Frequency	Switch Train Comment*
1	0	0	4	5-10 mph	Daily	There are switch trains in addition to through trains
2	0	0	4	5-10 mph	Daily	There are switch trains in addition to through trains
3	0	0	1	5-10 mph	Daily	There are switch trains in addition to through trains

*Switch trains are in addition to freight and passenger trains.

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

Construction Contact

Chris Jacobson, Superintendent of Engineering, Wisconsin and Southern Railroad Co.; 1890 East Johnson Street, Madison, WI 53704; Telephone (608) 750-6427; E-mail cjacobson@watco.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. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1. Contractor must officially request a railroad flagger a minimum of 15 days prior to scheduled work. If the

contractor fails to do so and is required to pay an Expedited Fee, the project will not reimburse the contractor for said fee.

Cable Locate Contact

In addition to contacting Diggers Hotline, contact the Construction Contact at least five working days before the locate is needed. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

WSOR will only locate railroad owned facilities located 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. The railroad will be removing the existing concrete panels and adjusting the rail profile at North Shore Drive and Broom Street. The railroad will also be installing new signals and gates at North Shore Drive and Broom Street. It is anticipated that this work will take 10 consecutive calendar days for North Shore Drive and 10 consecutive calendar days for Broom Street.

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

A.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.

B Railroad Flagging

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in subsection 107.17.1 are not maintained during construction operations. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

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

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

C Flagging by Railroad– Railroad Does Not Pay Flagging Costs

C.1 General

Replace paragraph (1,3 and 4) of standard spec 107.17.1 with the following:

- (1) Coordinate with the railroad for all work performed within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way. Include the following on all submittals and other written communications with the railroad:
 - WisDOT crossing number.
 - Railroad milepost.
 - Railroad subdivision.
- (3) Perform all work within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way in a way that does not interfere with the safe and uninterrupted operation of railroad traffic. Maintain clearances during construction as follows:
 1. Do not operate equipment closer than 25 feet horizontally from a track centerline or 22 feet vertically above the top of a rail, except under the protection of railroad flaggers.

2. Do not store materials or equipment closer than 25 feet horizontally from a track centerline.
3. Provide an obstruction-free work zone adjacent to a track extending 12 feet or more horizontally on both sides of the track centerline. Keep this work zone free of construction debris.
4. Unless the railroad's chief engineering officer approves otherwise in writing, maintain minimum clearances from falsework, forms, shoring, and other temporary fixed objects as follows:
 - 4.1 Provide 12 feet, plus 1.5 inches per degree of track curvature, measured horizontally from the track centerline.
 - 4.2 Provide 21 feet, plus compensation for super-elevated track, measured vertically above the top of the highest rail.

- (4) Comply with the railroad's rules and regulations when work is within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad. Notify the appropriate railroad representative as listed in section A.3 above, in writing, at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

C.2 Rates - Wisconsin and Southern Railroad Company

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

- \$1,006 daily rate for an 8-hour day (including wages, labor surcharges, meals, lodging, vehicle, and mileage expenses),
- \$190 per hour for all hours over 8 in any weekday (including wages, labor surcharges, meals, lodging, vehicle, and mileage expenses),
- \$1,196 daily rate on Saturdays, Sundays, or holidays for an 8-hour day (including wages, labor surcharges, meals, lodging, vehicle, and mileage expenses),
- \$215 per hour for all hours on Saturdays, Sundays, and holidays over 8-hours (including wages, labor surcharges, meal, lodging, vehicle, and mileage expenses)

C.3 Reimbursement Provisions

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

C.4 Excluded Conditions

The department will not reimburse any of the cost for additional flagging attributable to the following:

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

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

C.5 Payment for Flagging

The department will pay for the department's portion of flagging reimbursement as specified in section C of this provision under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
801.0117	Railroad Flagging Reimbursement	DOL

The reimbursement payment, as shown on the Schedule of Items, is solely for department accounting purposes. Actual flagging costs will vary based on the contractor's means and methods.

Railroads may issue progressive invoices. Notify the railroad when the work is completed and request a final invoice from the railroad. Promptly pay railroad-flagging invoices, less any charges that may be in dispute. The department will withhold flagging reimbursement until any disputed charges are resolved and the final invoice is paid.

No reimbursement for flagging will be made by the department if a violation of subsection B is documented.

stp-107-034 (20250108)

10. Hauling Restrictions.

Conduct operations in a manner that will cause a minimum of inconvenience to the free flow of traffic on roadways carrying John Nolen Drive, North Shore Drive, and Broom Street traffic at all times.

Use City of Madison designated truck routes for material haul roads as detailed in standard spec 618.

Equip all vehicles traveling on public roads, hauling materials or removals that are subject to spillage, by either wind or vibration, with tailgates and adequate sideboards. Use canvas covers and any other protective devices to prevent spillage as determined necessary by the engineer. Comply with all local ordinances.

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

The department has received written verification of coverage under the Section 404 Transportation Regional General Permit from the U.S. Army Corps of Engineers. 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 Zach Pearson at (608) 246-5319.

If the contractor requires work outside the proposed slope intercepts, based on their method of operation to construct the project, it is the contractor's responsibility to determine whether a U.S. Army Corps of Engineers Section 404 permit modification is required. If a Section 404 permit modification is necessary, obtain the permit modification prior to beginning construction operations requiring the permit. No time extensions as discussed in standard spec 108.10 will be granted for the time required to apply for and obtain the permit modification. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the permit modification request.

stp-107-054 (20230629)

12. Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges.

The calculated land disturbance for the project site is 18.44 acres.

The department has obtained permit coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities under this contract. Conform to all permit requirements for the project.

This permit is the Wisconsin Pollutant Discharge Elimination System, Transportation Construction General Permit, (WPDES Permit No. WI-S066796-2). The permit can be found at:

<https://widnr.widen.net/s/s5mwp2gd7s/finalsignedwisdotcsgp>

A "Certificate of Permit Coverage" is available from the regional office by contacting Zach Pearson at 608-246-5319. Post the "Certificate of Permit Coverage" in a conspicuous place at the construction site.

Permit coverage for additional land disturbing construction activities related to contractor means and methods will be considered as part of the ECIP review and approval process. Coverage under the TCGP for additional land disturbance areas will be considered if the areas meet all of the following:

- Must meet the permit's applicability criteria.
- Must be for the exclusive use of a WisDOT project.
- Land disturbance first commences after the ECIP approval, and the areas are fully restored to meet the final stabilization criteria of the permit upon completion of the work.

The contractor is responsible for obtaining any permits for areas that are not approved by the department for coverage under the TCGP.

stp-107-056 (20250108)

13. Information to Bidders, Waterway Marker Permit

The City of Madison has obtained a Waterway Marker Permit through the Wisconsin Department of Natural Resources to place and remove markers and buoys as shown in the plans. The permit is available from the City of Madison by contacting Chris Petykowski with the City of Madison at 608-267-8678.

The contractor is responsible for obtaining any permits for areas that are not approved by the Waterway Marker Permit.

14. Information to Bidders, Trans 29 Permit.

The City of Madison has obtained a conditionally approved permit to construct, operate and maintain utility facilities on Wisconsin Department of Transportation railroad property from the Wisconsin & Southern Railroad. This conditionally approved permit is valid for the storm sewer along Broom Street passing under the railroad crossing ID 177818M. The permit containing pertinent conditions is available from the City of Madison by contacting Chris Petykowski with the City of Madison at 608-267-8678.

15. 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)

16. Construction Over or Adjacent to Navigable Waters.

Lake Monona is classified as a state navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

17. Environmental Protection – Rusty Patched Bumble Bee.

To avoid impacting the Rusty Patched Bumblebee, disturbed grass medians and green space areas will be cleared and grubbed before the growing season and continuously mowed until construction begins to prevent vegetation growth.

18. Erosion Control Structures.

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

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

stp-107-070 (20191121)

19. Erosion Control.

Supplement standard spec 107.20 with the following:

Erosion control best management practices (BMP's) shown on the plans are at suggested locations. The actual locations will be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP will supplement information shown on the plans and not reproduce it. The ECIP will identify how to implement the project's erosion control plan. ECIP will 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 topsoil to minimize the period of exposure to possible erosion.

Provide the ECIP 14 days prior to the pre-construction conference. Do not implement the ECIP until department approval, and perform all work in accordance to the approved ECIP.

Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.

Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Immediately install perimeter silt fence protection around stockpiles. If stockpiled materials will be left for more than 14 days, install temporary seed or other temporary erosion control measures the engineer orders.

Re-apply topsoil on graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed/sod, fertilize, and/or mulch/erosion mat top-soiled areas, as designated by the engineer, within 5 calendar days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 calendar days, seed those areas with temporary seed.

After removing the existing revetment along Lake Monona, coordinate shoreline revetment work operations to limit the time the shoreline is exposed without revetment as shown in the plans to 48 hours.

Do not allow any excavation 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. Prior to each dewatering operation, submit to the

department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, in accordance with 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.

Keep all public roadways clean and free from dirt and debris at all times. Provide a self-contained mechanical or air conveyance street sweeper and dispose of the accumulated material.

Do not wash out equipment in drainage ways or direct conduits to waters of the state. Keep slurry out of inlets and drainage ways. Remove all temporary erosion control measures after disturbed areas are stabilized or at the direction of the engineer.

Prepare an Erosion Control Implementation Plan (ECIP) amendment detailing an over-winter erosion control plan for 2025/2026. Present this ECIP amendment at a pre-winter shut down meeting with WisDNR and department staff prior to October 31, 2025.

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

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

20. Notice to Contractor, Contamination Beyond Construction Limits.

A Phase 1 Hazardous Materials Site Assessment was prepared for this project and identified a site that has the potential for soil and ground water contamination.

The site listed below has the potential for hazardous materials to be present on the property, but the likelihood to be encountered during construction was determined to be low and did not warrant a subsurface investigation. The Phase 1 HMA indicated that potentially petroleum-contaminated soil may be present at the following site:

Station 114+00 – Station 130+00, Left and Right. The site is listed as a closed WDNR LUST site. During a previous project, a Phase I/II Environmental Site Assessment was conducted in the site area consisting of the advancement of twelve soil borings and 50 soil gas samples to characterize the area. The Phase I indicated that Law Park was used as a City landfill from 1933 to the early 1950s. Landfilled material consisted of residential refuse, University of Wisconsin-Madison waste, and possible fly ash. Phase II investigation results indicated the presence of total petroleum hydrocarbons in a soil sample collected from 19 feet northeast of the intersection of John Nolen Drive and Northshore Drive and in a soil sample collected between five and seven feet on John Nolen Drive southeast of Hancock Street. No metals or other contaminants of concern were detected in any of the other samples collected from the borings, but some refuse material was encountered. The site was granted closure on March 11, 1994 with no further investigation required.

The contaminated soils at the above site is expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations at these locations to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soils are encountered at these sites or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting:

Zach Pearson
Wisconsin Department of Transportation, SW Region
608-246-5319
Zachary.Pearson@dot.wi.gov

21. Notice to Contractor, Monitoring of Railroad Structure.

The department has made no arrangements to conduct condition surveys or allow placement of survey targets on railroad property. Arrange and coordinate access with the railroad company for surveys and placement of targets prior to commencement of activities creating vibration. Pre-construction data may be

collected and included in the Pre-Construction Condition Surveys. Do not place vibration monitoring instrumentation on railroad property without permission of the railroad.

During piling driving operations or sheet pile installation, the existing railroad tracks should be monitored for movement. If movement is recorded in excess of acceptable parameters, all pile driving operations or sheet pile installation must cease immediately and the engineer and railroad must be notified and methods to reduce vibration shall be proposed by the contractor for approval of the engineer and the railroad.

Monitoring is incidental to the bid item Settlement Monitoring.

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

John Roelke, License Number All-119523, inspected Structures P-13-753, P-13-754, P-13-755, B-13-333, P-13-756, B-13-332 for asbestos on June 22, 2021. No Regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is included with the bid package or available from Zach Pearson, 608-246-5319, zachary.pearson@dot.wi.gov.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 03/20), 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 to Zach Pearson, (608) 246-5319, Zachary.pearson@dot.wi.gov, and via e-mail to dothazmatunit@dot.wi.gov or via U.S. mail to DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S.513.12, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure P-13-753, John Nolen Drive over Lake Monona
- Site Address: 0.7M N JCT CTH MC
- Ownership Information: City of Madison, 210 Martin Luther King Jr. Blvd., Madison WI, 53703
- Contact: Dan Bauknecht
- Phone: 608-245-2661
- Age: 59 years old. This structure was constructed in 1966.
- Area: 3,764 SF of deck

- Site Name: Structure P-13-754, John Nolen Drive over Lake Monona
- Site Address: 0.2M S JCT USH 151
- Ownership Information: City of Madison, 210 Martin Luther King Jr. Blvd., Madison WI, 53703
- Contact: Dan Bauknecht
- Phone: 608-245-2661
- Age: 57 years old. This structure was constructed in 1968
- Area: 8,093 SF of deck

- Site Name: Structure P-13-755, John Nolen Drive over Lake Monona
- Site Address: 1.2M N JCT CTH MC
- Ownership Information: City of Madison, 210 Martin Luther King Jr. Blvd., Madison WI, 53703
- Contact: Dan Bauknecht
- Phone: 608-245-2661
- Age: 57 years old. This structure was constructed in 1968.
- Area: 7,003 SF of deck

- Site Name: Structure P-13-756, John Nolen Drive over Lake Monona
- Site Address: 0.1 M S JCT USH 151
- Ownership Information: City of Madison, 210 Martin Luther King Jr. Blvd., Madison WI, 53703
- Contact: Dan Bauknecht
- Phone: 608-245-2661
- Age: 57 years old. This structure was constructed in 1968

- Area: 7,934 SF of deck
- Site Name: Structure B-13-332, John Nolen Drive over Lake Monona
- Site Address: 0.7M N JCT CTH MC
- Ownership Information: City of Madison, 210 Martin Luther King Jr. Blvd., Madison WI, 53703
- Contact: Dan Bauknecht
- Phone: 608-245-2661
- Age: 50 years old. This structure was constructed in 1975
- Area: 4,539 SF of deck
- Site Name: Structure B-13-333, John Nolen Drive over Lake Monona
- Site Address: 1.1M N JCT CTH MC
- Ownership Information: City of Madison, 210 Martin Luther King Jr. Blvd., Madison WI, 53703
- Contact: Dan Bauknecht
- Phone: 608-245-2661
- Age: 50 years old. This structure was constructed in 1975
- Area: 6,909 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.

stp-107-125 (20220628)

23. Notice to Contractor, Electronic Load Tickets.

Replace standard spec 109.1.4.3 (1) with the following:

(1) Submit an electronic ticket for each load of material for the following bid items:

- 502.0100 - Concrete Masonry Bridges
- SPV.0035.201 – HPC Masonry Structures

Include the information as specified in 109.1.4.2 on each electronic ticket. If there is a failure in the electronic ticket system, provide a printed ticket for each load of material as a substitute for electronic tickets.

stp-107-230 (20250108)

24. Coordination with Businesses and Residents.

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and hold one meeting per week thereafter. The contractor shall arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least 2 weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

25. Health and Safety Requirements for Workers Remediating Petroleum Contamination.

Add the following to standard spec 107.1(2):

Soil contamination with gasoline, diesel fuel, fuel oil, or other petroleum related products may be encountered during excavation activities. Prepare a site-specific Health and Safety Plan complying with the Occupational Safety and Health Administration (OSHA) standard for Hazardous Waste Operation and Emergency Response (HAZWOPER), 29 CFR 1910.120.

All site workers taking part in remediation activities or who will have the reasonable probability of exposure of safety or health hazards associated with the hazardous material shall have completed Health and Safety training that meets OSHA requirements. Before the start of remediation work, submit to the engineer a site-specific Health and Safety Plan, and written verification that workers will have completed up-to-date OSHA training.

Develop, delineate, and enforce the health and safety exclusions zones for each contaminated site location pursuant to 29 CFR 1910.120.

stp-107-115 (20150630)

26. Preservation of Existing Trees.

Tree preservation is of great importance on the project. Adhere to the City of Madison Department of Public Works Standard Specifications Article 107-13 (Tree Protection Specifications). Take precautions during construction so as not to disfigure, scar, or impair the health of any tree on public or private property that is not marked for removal. Do not place, park, or store on the surface of any unpaved areas within the drip lines of trees any equipment, vehicles, or materials. Do not deposit any chemicals, rinsates, or petroleum products within the drip lines of trees. The drip line is defined as the outermost extent of the tree canopy, extended vertically to the ground surface as shown on the plans. The engineer and the City Forestry Representative will review trees that are in close proximity to the grading limits of the project and will identify specific trees to be protected. Contact Brad Hofman (bhofmann@cityofmadison.com), City of Madison Forestry at (608) 220-6796 with questions regarding tree preservation.

Preconstruction Pruning

Trees larger than 10 inches Diameter Breast Height (DBH) will be pruned by City Forestry to an approximate height of 14 feet above the road wherever construction equipment is expected to invade the tree crown. Pruning will be done according to ANSI A300 tree pruning specifications. Occasionally a limb may have to remain at height less than 14 feet above the roadway. Note these instances during the 'walk through' and employ methods to protect the limb.

Excavations

Do not rip or pull roots out towards the trunk of a tree while excavating. The use of an excavator, backhoe, or loader to cut roots is not acceptable. Immediately cut damaged roots over 1/2-inch in diameter in back of the damaged section. Make cuts with a sawzall, lopping shears, chainsaw, stump grinder, or other means that will produce a clean cut. Cover any exposed roots as soon as excavation and installation are complete.

Underground Utility Excavation and Installation

Do not grade, excavate, or disturb the area within 5 feet of any tree measured from the outside edge of the tree at DBH along the length of the terrace, without permission from the City Forestry Representative.

The engineer and the City Forestry Representative will review laterals that are in close proximity to terrace trees on a case by case basis. The engineer may elect to terminate lateral or service installation prior to conflict with tree roots (i.e. at the curb line). For laterals that continue to the property line, use construction methods that minimize tree damage as directed by the engineer. The engineer may allow boring under or within the 5 feet protection zone.

Curb and Gutter Removal and Replacement

Provide extra care to root masses that grow very close to, up to or over the curb during excavation. The City Forestry will mark "NRC" (No Root Cutting) next to trees with roots that could be damaged in curb removal.

Sidewalk Removal and Replacement

Provide extra care to root masses that grow very close to the sidewalk during excavation. The City Forestry will mark "NRC" (No Root Cutting) next to trees with roots that could be damaged in sidewalk removal.

Terrace Restoration

Do not mechanically grade within 5 feet of any tree. If in the root protection zone, do grading with hand implements in a manner that will minimize damage to the root system.

Damages

Failure to follow the proper safeguards of this specification, or the Root Pruning Existing Tree Item will result in the following cost recovery charges and liquidated damages assessed against the contractor:

Where construction damage occurs causing or resulting in removal of the tree:

- The costs associated with removing the tree including wood disposal.
- The costs associated with removing the stump to a depth of at least 24 inches below the ground.
- The costs associated with replanting a replacement tree that is balled and burlapped and shall have a minimum caliper of 3 inches. The species and replanting location shall be determined by the City Forestry.
- The value of the existing tree which shall equal \$125.00 per trunk diameter inch, measured at 4.5 feet above ground.

For bark scraping and broken branches:

- The costs associated with pruning broken branches, including wood disposal.
- Loss of limb or broken branch larger than 3 inches in diameter: \$500.00 for each occurrence. Breakage of limbs that are less than 14 feet above the roadway shall be reviewed on a case by case basis.
- Damage to trunk or bark larger than one square foot in area: \$500.00 each area.

For root cutting or excavation within the root protection zone:

- For mechanical excavation within 5 feet of a tree, along the length of the terrace or sidewalk of the tree, including ripping of roots back towards the trunk, without prior permission from City Forestry Representative: \$500.00 for each occurrence.
- For mechanical excavation beyond 6 inches or 1 foot of the proposed curb installation, as determined by the size of the existing tree and terrace width, including ripping of roots back towards the trunk: \$500.00 for each occurrence.

27. General Provisions for City of Madison Storm Sewer.

Contact Information:

Greg Fries

City Engineering – Stormwater Section

Phone: (608) 267-1199

E-mail: gfries@cityofmadison.com

Construct all storm sewers in accordance with the pertinent provisions of sections 608 and 611 of the standard specifications as shown on the plans, and as follows.

All storm structures are expected to be poured in place until the following procedure is followed. Additionally, structures that are called out specifically in the plans as field pour shall be field poured and precast shop drawings shall not be submitted for such structures.

Precast Approval Process:

- 1) Prior to ordering drainage pipes and structures, the contractor shall verify related drainage information in the plan including all information obtained from the bid item "Utility Line Opening".
- 2) Upon completion of the ULOs the engineer shall review for any potential design modifications and issue a revised plan as necessary.

- 3) Once the revised design is completed or the engineer consultant verifies no design changes are necessary, the contractor shall submit precast shop drawings to City Engineering for approval.
- 4) All precast structures shall be reviewed against the requirements of the City of Madison Standard Specifications for Public Works requirements for the appropriate structure.
- 5) City of Madison staff shall have a minimum of three (3) working days to review shop drawings. City of Madison review shall only be for compliance with City of Madison requirements for precasts.
- 6) Upon completion of the review, City of Madison staff shall submit the results to both the Contractor and the Engineer.
- 7) Finally, prior to ordering drainage pipes and structures the Contractor shall receive the approval of the Engineer.

Seal the joints for reinforced concrete pipe with internal rubber gaskets as described in section 608.2 of the standard specifications. The use of mastic joint sealer or mortar as pipe joint method is prohibited.

Lay all storm sewers on a 6-inch minimum thick bed of Base Aggregate Dense Graded 1 1/4-Inch in accordance with subsection 305.2.1 of the standard specifications or when water is encountered, No. 1 coarse concrete aggregate in accordance with subsection 501.2.7.3. Bedding for pipe shall be incidental to the installation costs of the round pipe.

All field poured storm structures shall be constructed rectangular in shape. However, if a precast structure is approved, the requirement for a rectangular structure is waived. Construct catch basins, manholes and inlets using only precast or cast in place concrete masonry options. All structures shall be reinforced concrete. Concrete brick and block options are prohibited. Should the Contractor choose to submit a manhole structure in place of an inlet to allow a precast to meet the standards noted above, the Contractor shall only be reimbursed for the size and type originally called for in the plans and specifications.

Construct all structures (manholes and inlets) on a 12-inch minimum thick bed of Base Aggregate Dense Graded 1 1/4-Inch in accordance with subsection 305.2.1 of the standard specifications or when water is encountered, No. 1 coarse concrete aggregate in accordance with subsection 501.2.7.3, and as shown on the plans. Bedding for structures shall be incidental to the installation costs of the structure.

Bid all structures (manholes and inlets) as field poured and construct all structures as field-poured unless the contractor receives approval of the City of Madison to precast the structures. This approval will not be given until it can be confirmed that the proposed design will fit existing conditions including possible utility conflicts.

Upon completion of the ULO information, the City Engineer shall provide the information for revision of the storm sewer design. Once the design has been proposed any revisions to the precast submittal shall be provided to the City for review and approval. The precast submittals shall include any revised designs as necessary for consideration. The City Engineer shall have three days to approve or reject shop drawings. Under no circumstances shall a precast structure be brought to or used on construction without written approval of shop drawings for that structure prior to its use on site. The contractor may choose to field pour structures and no additional compensation shall be provided.

Upon completion of the ULO information, the design engineer shall provide the information for revision of the storm sewer design. Once the design has been reviewed and or revised, any revisions to the precast submittal shall be provided to City Engineering for review and approval. Submit shop drawings for all precast structures to the City of Madison contact noted above. The precast submittals shall include any revised designs as necessary for consideration. The City of Madison shall have three days to approve or reject shop drawings. Under no circumstances shall a precast structure be brought to or used on the construction site without written approval of shop drawings for that structure prior to its use on site. The contractor may choose to field pour structures and no additional compensation shall be provided.

Total height of adjustment on storm sewer structures shall be a minimum of 2 1/4 inches and a maximum of eight (8) inches. Horizontal offset of adjustment shall be limited to a maximum of 2". No variations will be made unless approved in advance by the City of Madison design engineer.

The costs to connect storm sewer to existing structures or pipes and the costs to plug pipes for future use including tapping the hole, placing the pipe and sealing the joint, furnishing and installing a plugging device as specified above, will be included in the unit price bid for the pipe of the type, class and diameter used. The cost includes installing a concrete plug in the portion of the abandon pipe that remains in place

after completion of storm sewer trench. All private storm connection to a new structure are incidental to the new structure. If a private connection is not shown on the plan, additional compensation shall be paid for as a private reconnection unless the structure is field poured.

Carefully remove and stockpile all existing inlet, manhole, and catch basin covers that are not being adjusted and reused on the project at a location in the right of way outside the construction limits for pickup by City of Madison personnel. Contact Chris Scharf, 608-267-1973, with the City of Madison to schedule pickup.

Remove from the right-of-way and dispose of all frames or grates and all other material that the city does not want.

28. General Provisions for City Conduit Installation

Supplement standard spec 652 as follows:

Use Schedule 80 conduit under all traffic areas.

Install all conduit at a minimum depth of 30 inches, unless otherwise approved by the engineer. Solvent weld all joints. Mark the location of each conduit, where conduit crosses traffic areas, by a permanent chiseled arrow or other appropriate permanent stamp in top of the curb head.

Install and connect all conduit to the concrete bases, manholes, handholes (pull boxes), existing conduit, or conduit elbows so as to provide a continuous network, unless otherwise indicated on the plan. All connections shall be watertight. Do not install drainage holes in conduit. Uncover the ends or mid-sections of all existing conduit that is being extended by or incorporated into this project work.

When connections are to be made to an existing conduit, first verify that the existing conduit is fully clear and useable for its entire cross-section and length. When the existing conduit is found to be defective, notify the engineer and do not proceed until the engineer so directs. If the contractor connects to an existing defective conduit without the express direction from the engineer, make any and all necessary repairs and replacements to all conduits, including conduit that was "existing" prior to the contractor starting work and to the satisfaction of the engineer. All costs of this work shall be at the expense of the contractor.

Turn up conduits terminating in a non-paved location and not in a structure, and end at terrace finish grade with a PVC cap securely attached, per duct termination detail. Where conduit runs parallel to curb and gutter, place the conduit within 12 inches of the back of the curb, except as directed by the engineer. The engineer will determine termination points not within pull boxes or concrete bases.

Unless the contract provides for installation of cable, cap the ends of each run of conduit with standard conduit caps or otherwise appropriately plug the ends to preclude infiltration of water and soil. Install a pull wire in each conduit, except those with only streetlight wire. A pull wire shall be approximately 4 feet longer than the conduit run and shall be doubled back for at least 2 feet at each terminal. The pull wire shall be #10 AWG copper, stranded, with THHN insulation and green color coding. Install the pull wire within seven days of completing a conduit installation from structure-to-structure.

Use a 6-inch minimum sand padding below the conduit and a 6-inch minimum sand lift above the conduit. Do not backfill trench with any rocks larger than 4 inches in diameter or any foreign debris.

Install tracer wire in each conduit run that will receive future conductors as the conduit is laid. Unless the contract specifies wire or cable, install a 12 AWG. XLP insulated, green, stranded, copper, 600-volt AC, wire. Provide wire slack in pull boxes per WISDOT SDD 9B16. Tracer wire shall be continuously connected throughout the system and tied into the system ground at the nearest above ground access point. Tracer wire may be spliced below grade in pull boxes only using wet location gel filled wire nuts. Fasten tracer wire near the top of pull box. Tracer wire is the only conductor that will be allowed to be spliced below grade on this project.

29. General Provisions for City Traffic Signals.

Perform all work on the lighting and conduit/pull box system in accordance with the Wisconsin Electrical Code, the applicable provisions of the standard specifications, and these special provisions and plans.

The City of Madison will remove existing traffic signals and “signal only” poles when the temporary signals are in place at each intersection. Contact Michael Benzschawel at the City of Madison Traffic Engineering Shop, (608) 235-3649, to coordinate removal of existing signals and installation of new signals.

Remove existing streetlight poles identified for removal, including those that also have traffic signal equipment on them.

Each pedestrian push button installation shall include “Push Button for Walk Signal” signs. Single direction arrow signing shall also be used with all buttons except two direction arrow signing is needed for single buttons on median poles.

If existing conduits, handholes and bases designated as “save” cannot be saved, contact Jerry Schippa, (608) 267-1969, for further direction.

All new electric services shall be metered power, 100 amperes, 120 volt, CG-3 rate.

A minimum of 6 feet separation shall be maintained between any adjacent loop detectors.

30. General Provisions for City Electrical Systems.

A General Requirements

Perform this work in accordance to the Wisconsin Electrical Code, National Electrical Contractor's Association (NECA) electrical construction practices, OSHA and the standard specifications.

Perform all work on the lighting and conduit/pull box system in accordance to the Wisconsin Electrical Code, and applicable provisions of standard spec 659, and these special provisions and plans.

Carefully remove and salvage the steel frames and covers from all pull boxes and manholes to be removed or abandoned, and all street light poles, arms, transformer bases, fixtures, concrete handholes, and associated equipment. Material designated by the City to be saved shall be stored onsite and kept clean from debris and protected from damage until items can be returned to City Traffic Engineering, 1120 Sayle St., Madison. Contact Michael Benzschawel at the City of Madison Traffic Engineering Shop, (608) 235-3649, to coordinate removal of existing signals and installation of new signals.

Complete electrical work by a journey-worker electrician or be completed by an electrical apprentice under the supervision of a journey-worker electrician. Legal status or standing as a journey-worker and apprentice electricians shall be certified or otherwise documented to the engineer before beginning any electrical work. Electrical work is hereby defined as electrical and related construction required to be performed under the contract by the contractor, in accordance to the standard specifications, contract provisions, standard detail drawings and plan details applicable to electrical construction. At the pre-construction conference, supply the engineer with a list of names and qualifications of journey-workers and/or electrical apprentices who will or may be working on this contract.

Proof of qualification to do electrical journey-worker level work shall be the “Completion of Apprenticeship” certification card issued by an approved state agency, or a resume showing sufficient electrical education and a minimum of 14,000 hours of varied electrical work experience. All apprentices shall be indentured by an approved state agency.

The contractor is hereby advised that electrical apprentices must work under the terms of their indentures, which require an apprentice be under the direct supervision of a journey-worker with the exception of an apprentice in the final year as an apprentice. Any violation, or suspected violation, of these terms will be reported to the Bureau of Apprenticeship Standards.

On completion of the work, test the installation and ensure that it is entirely free of grounds and short circuits. This contract contemplates and intends a complete and operating installation of electrical work. Everything in the form of labor or material necessary for this result is in the intent of the contract.

It must be understood that electrical drawings and details are diagrammatic; they are not intended to be shop drawings. It is expected it may be necessary to move conduit, and/or equipment in some cases, to get a coordinated installation. Such changes are considered part of the contract obligation, without cost to the owner. Do not locate any equipment where its usefulness and/or operation may be affected by the work of other trades, door swing, counter, equipment, etc.

The contractor acknowledges his acquaintance with the plans and specifications and their respective requirements, and shall guarantee the electrical system has been installed strictly in accordance to the electrical plans and specifications, using only the best of materials available and installed in a substantial manner by experienced labor. The contractor agrees to replace and/or repair items failing from causes of

faulty workmanship, material or design, without extra cost, at any time within one year from the date of final acceptance.

Furnish the City of Madison with service manuals for all items furnished under this contract. Service manuals shall be complete with drawings, diagrams, operation and installation instructions, and parts lists.

New streetlight wire in conduits shall consist of 3#4 and 1#8 green wire. The color coding for the #4 wire shall be one black, one red, and one white.

Ground wires shall have green insulation or be marked with green tape at all junction or pull boxes and at all terminations. Equipment and enclosures shall be grounded, ground connection surfaces shall be cleaned, and connections shall be made so it is impossible to move them.

All maintenance of existing street light facilities within the project limits shall be the contractor's responsibility. Maintain the new street lights until project work is accepted. This work shall be considered incidental to installation of street light units, temporary lighting, structures and ducts, and no separate compensation will be paid.

Extend existing lighting circuits to feed the new and relocated lights as part of this project. Verify the existing loads of each lighting circuit before adding additional load to a lighting circuit. Loading on any circuit shall not exceed NEC requirements.

Submit one copy of as-built plans, including cable and conduit routing diagrams, wiring of fixtures and other pertinent details, to the engineer and the City of Madison.

Furnish equipment and appliances necessary to test the complete installation of electrical conductors. Test and demonstrate to the satisfaction of the engineer that the circuits are properly connected, continuous and free from short circuits and unspecified grounds, that the circuits are connected in accordance to the manufacturer's wiring layout, and that each circuit is operational. The lighting system shall not be deemed complete until the electrical work has been completed and the electrical systems are found to be in proper working order, including operation for ten consecutive nights without failure.

B Materials

All materials furnished by the contractor for lighting installation under this contract are subject to approval by the engineer.

Manufacturers shall be responsible for providing materials listed by UL or other approved agencies and all governing codes and ordinances. Materials must bear a UL and/or other approved labels, where possible. Items specified by catalog number of brand name and shop drawing approval will not relieve the manufacturer of this responsibility. All electrical material for which a standard has been established by the Underwriters Laboratories, Inc. shall be furnished and installed under this contract. Material shall have the UL label firmly attached and be listed by UL Listing signifies that the material has passed the established standard testing. All electrical materials shall conform to the latest requirements of the Wisconsin Electrical Code.

All materials, not specified herein, used in the work shall conform to the requirements specified on the plan or the contract special provisions.

Furnish and install incidental items, such as wire nuts, grommets, tape, connectors, and electrical varnish that are obviously necessary to make the proposed system complete from the source of supply to the most remote unit.

Touch up mars and scratches on painted equipment with two coats of synthetic resin enamel or as directed by the engineer.

Furnish a complete list and cut sheets/shop drawings of materials to be furnished and used for lighting. Include the names and addresses of manufacturers, together with catalog numbers, certificates of compliance, specifications, and other product information requested by the engineer. Submit the list and cut sheets/shop drawings within 20 calendar days of the award of the contract. Do not incorporate any materials into the lighting system prior to obtaining the written approval of the engineer. Approval does not change the intent of the specifications. Do not substitute any materials. The contractor is allowed up to two submittals of material for approval. If more than two submittals are required, the contractor will be charged on a time-and-material basis for additional review time with payment made before submittals will be reviewed.

C Splices

Splices shall comply with standard spec 659.3.2. All splices within a junction box, handhole, etc. shall be of the same type. No splices are allowed in underground pull boxes, except for grounding conductors.

D Circuit Identification

Accomplish color coding by using cable jackets of the proper color. Code all tails of all splices. Color-code secondary distribution circuits as shown on the plans; the ground conductor shall be green. Each accessible location of underground cable in junction boxes, pull boxes and pole bases shall have a permanent white nylon tag with black lettering, attached in a "flag" manner using a nylon tie, identifying the cabinet and conductor circuit number.

E Branch Circuit Tagouts

The contractor may at his option work on live circuits or he may disconnect and tag out circuits. Any branch circuit not disconnected and tagged out shall be considered live; restrict work force to those qualified to work on live circuits. Disconnection may be made by disconnecting branches at the overcurrent device. Make tagouts with contractor furnished manufactured electrical warning tags and endorse with the name of the contractor, the date, and the project. Clear all tagouts by the end of the workday.

F Threaded Fasteners

Liberally coat all threaded fasteners, i.e., screws, and bolts with an approved anti-seize compound. Excepting fasteners inside control cabinets, fasteners up to 1/2-inch in diameter shall be stainless steel.

Provide rust, corrosion and anti-seize protection at threaded assemblies by coating the mating surfaces with Markal (Hightemp E-Z Break), Never-Seez (marine grade), LPS 100, Lubriplate or approved equal.

G Bonding Wire

Install bonding wire in conduits for equipment grounding. Ground all equipment as required.

H Initial Failures

The contractor and the engineer shall agree on a time for test burning of completed installations, which is generally toward the end of the contract period. Replace failed lamps, along with any other non-functioning component, for no additional compensation. Only one test burn for the purpose of identifying initial failures will be required. Coordinate supply of replacement lamps with the city.

I Project Construction Staging

The construction of the new lighting system shall maintain the integrity of the existing lighting systems beyond the project limits at all times, and until the temporary system within the project limits is in place and operable. Exceptions to this shall only be granted for just cause by the inspector.

J Items of the Same Classification

All items of the same classification shall be of the same manufacturer and series.

L Underground Installation

Ensure that the engineer has inspected all underground conduit and concrete base forms before backfilling any trench or pouring concrete. Any work completed without such inspection is subject to rejection as unacceptable work and shall be immediately removed and acceptably replaced or otherwise satisfactorily corrected by and at the expense of the contractor. It is the contractor's responsibility to arrange for inspections. There will not be any additional compensation to the contractor for delays and inconvenience associated with arranging and waiting for inspections.

31. Electrical Work By Others.

The City of Madison Traffic Signals and Communications Units will perform the following work for project 5992-11-21 traffic signal, lighting, and communication systems:

- Complete and authorize electrical service installation applications
- Install and program contractor furnished traffic signal control cabinets, controller, malfunction management unit, vehicular detection system programming unit and equipment

- Provide all permanent traffic signal timing. Contact Gretchen Aviles Pineiro, City of Madison Engineering, (608) 266-4899.

32. Removing Navigational Markers, Item 204.9060.S.001.

A Description

This special provision describes removing navigational markers conforming to standard spec 204 and as shown in the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Navigational Markers as each, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Navigational Markers	EACH
stp-204-025 (20230113)		

33. Removing Street Light Assembly, Item 204.9060.S.002; Removing Traffic Signal (John Nolen Drive & North Shore Drive), Item 204.9060.S.003; Removing Traffic Signal (John Nolen Drive & Broom Street), Item 204.9060.S.004.

A Description

This special provision describes removing and salvaging a concrete base mounted light pole and traffic signal pole, transformer base, arm, signal head, luminaire, signal cabinets and meters, and any associated traffic signal infrastructure as indicated by the engineer.

B (Vacant)

C Construction

Contact Electrical Operations Lead Worker, (608) 266-9031, at least seven (7) days prior to removing any streetlights on the City of Madison lighting system or traffic signals maintained by the City of Madison. Arrange a meeting to document the existing condition of all street lighting materials that will be affected by construction activities.

The City of Madison will provide the following information.

1. Identify all items to be salvaged or disposed of. Tentative list includes:
 - a. Blank out boards
 - b. Inside the Signal Cabinets:
 - i. Switches
 - ii. Media convertors
 - iii. Fiber termination panel
 - iv. Fiber jumpers
 - v. Camera Power over Ethernet (PoE)
 - vi. CCTV cameras
 - c. Any PoE power equipment
 - d. Transformer Bases
2. Identify existing feed-point locations and circuit breaks.

When removing existing streetlights and traffic signals, carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. Protect luminaires and signal heads from moisture. Make available for the City of Madison to pick up and salvage. Properly dispose of any equipment that the city does not salvage..

Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged piece.

D Measurement

The department will measure Removing Street Light Assembly and Removing Traffic Signal 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
204.9060.S.002	Removing Street Light Assembly	EACH
204.9060.S.003	Removing Traffic Signal (John Nolen Drive & North Shore Drive)	EACH
204.9060.S.004	Removing Traffic Signal (John Nolen Drive & Broom Street)	EACH

Payment is full compensation for removals, salvaging and disposal as required above.

34. Removing Inlet Covers, Item 204.9060.S.005.

A Description

This special provision describes removing inlet covers conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Inlet Covers by each, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.005	Removing Inlet Covers	EACH

35. Removing Bicycle Counter Base, Item 204.9060.S.006.

A Description

This special provision describes removing the bicycle counter base conforming to standard spec 204.

B (Vacant)

C Construction

Bicycle counter sign shall be removed by others. Coordinate with the City of Madison on timing of removal. Remove existing concrete base and dispose of material.

D Measurement

The department will measure Removing Bicycle Counter Base 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
204.9060.006	Remove Bicycle Counter Base	EACH

**36. Removing or Abandoning Existing Conduit, Item 204.9090.S.001;
Removing Electrical Cables from Existing Conduit, Item 204.9090.S.002.**

A Description

This special provision describes removing or abandoning existing conduit and removing electrical conductors or fiber cable from existing conduit conforming to standard spec 204.

B (Vacant)

C Construction

Conductors or cable shall be removed from the existing underground conduits as shown on the plans and as directed by the engineer. The engineer shall verify the extent of the wiring removal prior to disconnecting luminaires or communication equipment. Any necessary splices or disconnections to electrical conductors shall be done as part of this pay item. Fiber splices shall be paid for separately. Removed wires shall become property of the contractor and shall be disposed of off the project site.

Conduit shall be removed as shown on the plans and as directed by the engineer. The engineer shall verify the extent of conduit removal prior to disconnecting luminaires. Any necessary stubs shall be capped and shall be incidental to this pay item. Removed conduit shall become property of the contractor and shall be disposed of off the project site.

D Measurement

The department will measure Removing Electrical Cables from Existing Conduit by linear feet of conduit from where wires shall be removed and disposed of, regardless of conductor quantity within conduit, acceptably completed. The vertical length and wire slack shall be incidental to this pay item.

The department will measure Removing or Abandoning Existing Conduit by linear feet of conduit, 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
204.9090.S.001	Removing or Abandoning Existing Conduit	LF
204.9090.S.002	Removing Electrical Cables from Existing Conduit	LF

Payment is full compensation for removals and disposal as required above.

stp-204-025 (20150630)

37. Removing Railing and Bases, Item 204.9090.S.003.

A Description

This special provision describes removing railing and bases conforming to standard spec 204 and as shown in the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Railing and Bases by the liner foot, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.003	Removing Railing and Bases	LF

stp-204-025 (20230113)

38. Removing Underdrain 6-Inch, Item 204.9090.S.004.

A Description

This special provision describes removing underdrain conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Underdrain 6-Inch by the linear foot, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.004	Removing Underdrain 6-Inch	LF

39. QMP Base Aggregate Dense 1 1/4-Inch Compaction, Item 371.2000.S.

A Description

- (1) This special provision describes modifying the compaction and density testing and documentation requirements of work done under the Base Aggregate Dense 1 1/4-Inch bid items. Conform to standard spec 305 as modified in this special provision and to the contract QMP Base Aggregate article.
- (2) Provide and maintain a quality management program. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process related to construction of dense graded base which meets all the requirements of this provision.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

<http://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf>

- (4) This special provision applies to Base Aggregate Dense 1 1/4-Inch material placed: above at least 16 inches of subgrade improvement, 12 inches of subgrade improvement and geogrid or QMP subgrade provisions, between shoulder hinge points and lower than mainline pavement. Unless otherwise specified by the contract, all Base Aggregate Dense 1 1/4-Inch material placed on side roads, private and public entrances, individual ramps less than 1500 feet, passing lanes less than 1500 feet, tapers, turn lanes, and other undefined locations are exempt from the compaction and density requirement modifications and testing contained within this special provision.

B (Vacant)

C Construction

C.1 General

- (1) The engineer shall approve the grade before placement of the base. Approval of the grade shall be in accordance with applicable provisions of the standard specifications.

Add the following to standard spec 305.3.2.2:

- (3) For 1 1/4-Inch dense graded base composed of < or = 20% reclaimed asphaltic pavement (RAP) or crushed concrete (RCA), as determined by classification of material (aggregate or RAP and/or RCA) and percentage by weight of each material type retained on the No. 4 Sieve, the contractor must determine the material target density in accordance with:

Method 1: Maximum dry density in accordance with AASHTO T-180, Method D, with correction for coarse particles and modified to require determination of Bulk Specific Gravity (Gm) in accordance with AASHTO T 85. Bulk Specific Gravities determined in accordance with standard spec 106.3.4.2.2 for aggregate source approval may be utilized.

- (4) For 1 1/4-Inch dense graded base composed of >20% RAP or RCA, as determined by classification of material (aggregate or RAP and/or RCA) and percentage by weight of each material type retained on the No. 4 Sieve, the contractor may choose from the following options to determine the material target density:

- Method 2: Maximum dry density as determined by AASHTO T-180, Method D, with correction for coarse particles, and modified to require determination of Bulk Specific Gravity (G_m) in accordance with AASHTO T 85.
- Method 3: Maximum wet density as determined by AASHTO T-180, Method D, modified to define *Maximum Density* as the wet density in pounds per cubic foot of soil at optimum moisture content using Method D specified compaction, with correction for coarse particles, and modified to require determination of Bulk Specific Gravity (G_m) in accordance with AASHTO T 85.
- Method 4: Average of 10 random control strip wet density measurements as described in section C.2.5.1.
- (5) Compact the 1 1/4-Inch dense graded base to a minimum of 93.0% of the material target density for methods 1, 2 and 3. Compact 1 1/4-inch dense graded base to a minimum of 96% of the material target density for method 4. Ensure that adequate moisture is present during placement and compaction operations to prevent segregation and to help achieve compaction.
- (6) Base Aggregate Dense 1 1/4-Inch will be accepted for compaction on a lot basis.
- (7) Field density tests on materials using contractor elected target density methods 3 or 4 will not be considered for lot acceptance on the basis of compaction under the requirements of this provision until the moisture content of the in-place material is less than 2.0 percentage points above the maximum wet density optimum moisture or 2.0 percentage points of the average moisture content of the 10 density tests representing a control strip, respectively. Determine moisture content using AASHTO T255 as modified in CMM chapter 8 or a nuclear density gauge. If conducting AASHTO T255, sample materials after watering but before compaction.

C.2 Quality Management Program

C.2.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer no later than 10 business days before placement of material. Do not place any dense graded base before the engineer reviews and accepts the plan. Construct the project as the plan provides.
- (2) Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:
1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
 3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
 4. Descriptions of stockpiling and hauling methods.
 5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
 6. Location of the QC laboratory, retained sample storage, and other documentation.
 7. Lot layout and random test location plan.
 8. A description of placement methods and operations. Including, but not limited to: staging, construction of an initial working platform, lift thicknesses, and equipment.

C.2.1 Pre-Placement Meeting

A minimum of two weeks before placement of Base Aggregate Dense 1 1/4-Inch material, hold a pre-placement meeting at a mutually agreed upon time and location. Present the Quality Control Plan at the meeting. Attendance at the pre-placement meeting is mandatory for the project superintendent, quality control manager, project inspection and testing staff, all appropriate contractor personnel involved in the sampling, testing, and quality control including subcontractors, and the engineer or designated representatives.

C.2.2 Personnel

- (1) Perform the quality control sampling, testing, and documentation required under this provision using technicians certified by the Department's Highway Technician Certification Program (HTCP). Have a HTCP Nuclear Density Technician I, or ACT certified technician, perform field density and field moisture content testing. Adhere to the minimum required certifications for aggregate testing per part 7 of the standard specification. AASHTO T180 proctor testing requires a minimum certification level of AGGTEC-1.

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

C.2.3 Equipment

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

- (2) Furnish nuclear gauges from the department's approved product list at:

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

- (3) Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.
- (4) For all target density methods, conform to AASHTO T310 and CMM 8-15 for wet density testing and gauge monitoring methods.
- (5) For the specified target density determined using method 1 in section C.1, compute the dry densities for the compacted dense graded base, composed of < or = 20% RAP or RCA, according to AASHTO T310.
- (6) For contractor elected target density method 2 in section C.1, compute dry densities of dense graded base composed of >20% RAP or RCA using a moisture correction factor and the nuclear wet density value. Determine the moisture correction value, for each Proctor produced under the requirements of C.2.5, using the moisture bias as shown in CMM 8.15.12.1 and 8.15.12.2, except the one-point Proctor tests of the 5 random tests is not required. Conduct a moisture bias test for every 7500 feet of Base Aggregate Dense 1 1/4-Inch placed. Determine natural moistures in the laboratory.
- (7) Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Backscatter may be used only if the material being tested cannot reliably maintain an undistorted direct transmission test hole. Direct transmission tests must be performed at the greatest possible probe depth of 2 inches, 4 inches, or 6 inches, but not to exceed the depth of the compacted layer being tested. Perform each test for at least one minute of nuclear gauge count time.

C.2.5 Contractor Testing

- (1) Perform compaction testing on the mainline dense graded base material, as defined by A.(4). Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians as required in C.2.3. Conform to CMM 8-15 for testing and gauge monitoring methods.
- (2) Select test sites randomly using ASTM Method D3665. Random numbers may be determined using an electronic random number generator. Guidance for determining test locations can be found in section 8-30.9 of the Construction and Materials Manual (CMM). Test locations must be kept a minimum of 3 feet from the unsupported edge of dense graded base layers.
- (3) When a density target is determined in accordance methods 3 or 4 in section C.1, conduct density testing on same date of final compaction.

C.2.5.1 Contractor Required Quality Control (QC) Testing

- (1) Conduct testing at a minimum frequency of one test per lot. A lot is 1500 feet for each layer with a maximum width of 18 feet, minimum width of 6 feet, and minimum lift thickness of 2" of Base Aggregate Dense 1 1/4-Inch material placed. Each lot of compacted Base Aggregate Dense 1 1/4-Inch material, as defined by A.(4), will be accepted when the lot field density meets the required minimum density. Lots that don't achieve density requirements must be addressed and approved in accordance with C.2.7.
- (2) Add separate lots for passing lanes and individual ramps greater than 1500 feet.
- (3) Combine partial lots less than 750 feet with the previous lot. Partial lots greater than or equal to 750 feet are standalone lots.
- (4) Notify the engineer, if a lot field density test falls below the required minimum value. Document and perform corrective actions in accordance with C.2.7. Deliver documentation of all compaction testing results to the engineer at the time of testing.

C.2.5.1.1 Target Density Determination

C.2.4.1.1.1 Maximum Wet and/or Dry Density Methods

- (1) For contractor elected target density methods 2 and 3 in section C.1, and contractually specified target density method 1 in section C.1; perform one gradation and 5-point Proctor test before placement of 1 1/4-Inch dense graded base. Perform additional gradations every 3000 tons in accordance with standard spec 305 and 730. If sampling requirements are identical, samples/testing performed for the QMP Base Aggregate specification may be used to fulfill the gradation testing requirements of this specification.
- (2) Perform additional 5-point Proctor tests, at a minimum, when:
 1. The four point moving average gradation on any one sieve differs from the original gradation test result for that sieve, by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to create a 5-point Proctor. Each 5-point Proctor test will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test.
 2. The source of base aggregate changes.
 3. Percent target density exceeds 103.0% on two consecutive density tests.
- (3) Provide Proctor test results to the engineer within two business days of sampling. Provide gradation test results to the engineer within one business day of sampling.
- (4) Split each contractor QC Proctor sample and identify it according to CMM 8-30. Deliver the split to the engineer within one business day for department QV Proctor testing.
- (5) Split each non-Proctor contractor QC sample and identify it according to CMM 8-30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

C.2.5.1.1.2 Density Control Strip Method

- (1) For contractor elected target density method 4 in section C.1, construct a control strip for each layer of placement to identify the target wet density for the base aggregate dense material. The control strip construction and density testing will occur under the direct observation and/or assistance of the department QV personnel. For blended material, reprocessed material and crushed concrete, perform additional gradations every 3000 tons in accordance with standard spec 305 and 730. If sampling frequencies are identical, samples/testing performed for the QMP Base Aggregate specification may be used to fulfill the gradation testing requirements of this specification.
- (2) Unless the engineer approves otherwise, construct control strips to a minimum dimension of 300 feet long and one full lane width.
- (3) Completed control strips may remain in-place to be incorporated into the final roadway cross-section.
- (4) Construct additional control strips, at a minimum, when:
 1. The source of base aggregate changes.
 2. The four point moving average percentage of blended recycled materials, from classification of material retained on the No. 4 sieve in the original gradation test, differs by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip.
 3. The layer thickness changes more than 2.0 inches.
 4. The percent target density exceeds 103.0% on two consecutive density measurements.
- (5) Construct control strips using equipment and methods representative of the operations to be used to place and compact the remaining 1 1/4-Inch Base Aggregate Dense material. Wet the base, as mutually agreed upon by the contractor and engineer, to obtain and/or maintain adequate moisture content to ensure proper compaction. Discontinue water placement if the base begins to exhibit signs of saturation or instability.
- (6) After compacting the control strip with a minimum of 2 passes, mark and take density measurements at 3 random locations. Subsequent density measurements will be taken at the same 3 locations. Test locations must be kept a minimum of 3 feet from the unsupported edge of dense graded base layers.
- (7) After each subsequent pass of compaction equipment over the entirety of the control strip, take wet density measurements at the 3 marked locations. Continue compacting and testing until the increase in wet density measurements are less than 2.0 lb/ft³, or the density measurements begin to decrease.
- (8) Upon completion of control strip compaction, take 10 randomly located wet density measurements within the limits of the control strip. The final measurements recorded at the 3 locations under article C.2.4.1.1.2 may be included as 3 of the 10 measurements. Average the ten measurements to obtain the control strip

target density and target moisture for use in contractor elected method 4 in section C.1. Test locations must be kept a minimum of 3 feet from the unsupported edge of dense graded base layers.

C.2.6 Department Testing

C.2.6.1 General

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project and provide test results to the contractor within two business days after the department obtains the sample.
- (2) When a density target is determined in accordance methods 3 and 4 in section C.1, conduct density testing on same date of final compaction.

C.2.6.2 Quality Verification (QV) Testing

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.2.3 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 20% of the required gradation, density and Proctor contractor tests.
- (3) The department will utilize contractor's QC Proctor results for determination of the material target density. The department will verify QC Proctor values by testing QC Proctor split sample. The department will use QC Proctor value as a target density if the QC and QV Proctor test results meet the tolerance requirements specified in section C.2.6.2(7).
- (4) The department will locate gradation and nuclear density test samples, at locations independent of the contractor's QC work, collecting one sample at each QV location. Sampling for gradation may be done independently of nuclear density tests, before watering and before compacting. The department will split each QV sample, test half for QV, and retain the remaining half for 10 calendar days.
- (5) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (6) The department will utilize control strip target density testing results in lieu of QV Proctor sampling and testing when the contractor elected target density method 4 in section C.1 is used.
- (7) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If QV test results are nonconforming, take corrective actions in accordance with C.2.7 until the requirements of this special provision are met. Differing QC and QV nuclear density values of more than 2.0 pcf will be investigated and resolved. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.2.6.3 Independent Assurance (IA)

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.2.6.4.

C.2.6.4 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor shall review the data, examine data reduction and

analysis methods, evaluate sampling and testing methods/procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

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

C.2.7 Corrective Action

- (1) Lots not achieving the minimum density requirements may be addressed and accepted for compaction in accordance with the requirements of this section. Unless directed by the engineer, corrective actions taken to address an unacceptable lot must be applied to the entire lot corresponding to the non-conforming test.
- (2) Investigate the moisture content of material in an unacceptable lot. Moisture content testing/samples collected under the QC and/or QV testing articles of this specification may be used to complete this investigation. Obtain moisture content readings in accordance with ASTM D 6938. For material composed of >20% RAP or RCA, correct the moisture content with the moisture correction value using the moisture bias, as shown in CMM 8.15.12.1 and 8.15.12.2, except the one-point Proctor tests of the 5 random tests is not required.
- (3) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods 1, 2 and 3 in section C.1, or within 2.0 percentage points of the target moisture content for target density method 4 in section C.1, and exhibiting no signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations, shall be compacted a minimum of one more pass using equipment and methods representative of the operations used to place and compact the Base Aggregate Dense 1 1/4-Inch, and density tested at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft³ continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft³, the lot is accepted as satisfying the compaction requirements of this provision.
- (4) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods 1, 2, or 3 in section C.1, or within 2.0 percentage points of the target moisture content for target density method 4 in section C.1 and exhibiting signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations, will be reviewed by the engineer. The engineer may request subgrade improvement methods, such as excavation below subgrade (EBS), installation of geotextile fabrics, installation of breaker run material, or others to be completed, or may request an additional pass of compactive effort using equipment and methods representative of the operations used to place and compact the base aggregate dense and density test.
 1. If, after an additional pass, the change in density at the same location (station and offset) as the failing QC and/or QV density tests exceeds 2.0 lb/ft³ in a lot continue subsequent compactive efforts and density testing on that lot. If the change in density at the same location (station and offset) as the failing QC and/or QV density tests is less than or equal to 2.0 lb/ft³, and subgrade improvement methods are not requested by the engineer, the lot is accepted as satisfying the compaction requirements of this provision.
 2. If subgrade improvement methods are requested by the engineer, upon completion, including compaction of the restored base material, conduct a density test within the improved subgrade limits. This density test result will replace the prior field density value. If the lot field density equals or exceeds the minimum density requirement defined in section C.1, the lot is accepted as satisfying the compaction requirements of this provision. If the lot field density fails to achieve the minimum density requirement defined in section C.1, compact the lot a minimum of one more pass using equipment and methods representative of the operations used to place and compact the base aggregate dense; and density test at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft³ continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft³, the lot is accepted as satisfying the compaction requirements of this provision.
- (5) Unacceptable lots, with moisture contents in excess of 2.0 percentage points above or below optimum moisture for target density methods 1, 2 or 3 in section C.1; or in excess of 2.0 percentage points above

or below the target moisture content for target density method 4 in section C.1; shall receive contractor performed and documented corrective action; including additional density testing.

- (6) Density tests completed subsequent to any corrective action will replace previous field density test results for that lot. Continue corrective actions until the minimum density requirement is achieved or an alternate compaction acceptance criteria is met in accordance with this section.
- (7) Field moisture contents of materials tested using contractor elected target density methods 3 or 4 in section C.1 cannot exceed 2.0 percentage points of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively. Density tests on materials using contractor elected target density methods 3 or 4 in section C.1 will not be considered for lot compaction acceptance until the moisture content of the corresponding density test of the in-place material is less than 2.0 percentage points above of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively.

D Measurement

- (1) The department will measure the QMP Base Aggregate Dense 1 1/4-Inch Compaction bid item by each lot, acceptably completed per C.2.5.1.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
371.2000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	EACH

- (2) Payment is full compensation for performing compaction testing; for sampling and laboratory testing; and for developing, completing, and documenting the compaction quality management program. The department will pay separately for providing aggregate under the Base Aggregate Dense 1 1/4-Inch bid item.
- (3) The department will pay for additional tests directed by the engineer. One engineer directed test is equal to one acceptably completed lot of the QMP Base Aggregate Dense 1 1/4 -Inch Compaction bid item. The department will not pay for additional corrective action tests required due to unacceptable material.

stp-370-010 (20210113)

40. Paving In Echelon.

Echelon paving shall be completed on all layers for all paving operations along John Nolen Drive in one direction at a time and shall be incidental to the bid item HMA Pavement 4 MT 58-28 H and 3 MT 58-28 S.

41. QMP HMA Pavement Nuclear Density.

A Description

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

- (1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 except as modified in this special provision.
- (2) Provide and maintain a quality control program defined as all activities and documentation of the following:
 - 1. Selection of test sites.
 - 2. Testing.
 - 3. Necessary adjustments in the process.
 - 4. Process control inspection.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures.

<https://wisconsindot.gov/rdwy/cmm/cm-08-00.pdf>

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

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

B Materials

B.1 Personnel

(1) Nuclear gauge owners and personnel using nuclear gauges shall comply with WisDOT requirements according to 460.3.3 and CMM 815.

B.2 Testing

(1) Conform to WTM T355 and CMM 815 for density testing and gauge monitoring methods. Conform to CMM 815.10.4 for test duration and gauge placement.

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges according to CMM 815.2.

(2) Furnish nuclear gauges from the department's approved product list at

<https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

(1) Compare QC and QV nuclear gauges according to WTM T355.

B.3.2.2 Reference Site Monitoring

(1) Conduct reference site monitoring for both QC and QV gauges according to WTM T355.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

(1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 815.10.2.

(2) Determine required number of tests according to CMM 815.10.2.1.

(3) Determine random testing locations according to CMM 815.10.3.

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

(1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 815.10.2.

(2) Determine required number of tests according to CMM 815.10.2.2.

(3) Determine random testing locations according to CMM 815.10.3.

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

(1) Calculate the average sublot densities using the individual test results in each sublot.

(2) If all sublot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.

(3) If any sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot is subject to disincentive pay as specified in standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

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

B.4.2.2.2 Width of 5 Feet or Less

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

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

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

B.4.2.4 Documentation

- (1) Document QC density test data as specified in CMM 815. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.
- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If two consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.
- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft³ of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft³ each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft³, use the original QC tests for acceptance.

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

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

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

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

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

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

B.7 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

(1) The department will administer density disincentives as specified in standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

(1) The department will administer density incentives as specified in standard spec 460.5.2.3.
stp-460-020 (20230629)

42. Stamping Colored Concrete, Item 405.1000.

This special provision describes stamping and coloring concrete Natural Bark for work constructed under other contract bid items. Conform to standard spec 405 as modified in this special provision.

Replace standard spec 405.2.1.1(1) with the following:

- (1) Integrally color concrete using non-fading pigments conforming to ASTM C979.
 - For Natural Bark match the concrete color in reasonably close conformance with BASF MC5002 color.

Replace standard spec 405.2.1.1(3) with the following:

- (3) The department will accept the color and pattern based on comparison to color samples available for viewing at City of Madison Engineering.

Replace the entire contents of standard spec 405.2.2 with the following:

- (1) Furnish Natural Bark full-depth colored concrete conforming to standard spec 405.2.1
- (2) Provide a brick style pattern in accordance with the City of Madison standard pattern

Replace the entire contents of standard spec 405.3.2 with the following:

- (1) Color concrete full-depth conforming to standard spec 405.3.1
- (2) Coordinate stamping with the engineer to verify stamping pattern orientation prior to starting stamping work. Apply imprinting tools to the surface and press into the concrete to create the desired impression. Finish all surfaces uniformly. Ensure that the textured surface is free of laitance; sandblasting is not permitted.

stp-405-100 (20190618)

43. Cold Patch, Item 495.1000.S.

A Description

This special provision describes furnishing cold patch and filling potholes and other voids in existing pavement surfaces as the engineer directs.

B Materials

Furnish a mixture of course aggregate, natural sand, and MC-250 bituminous material designed to have a workability range of 15-100° F without heating. Ensure that the mixture:

- Adheres to wet surfaces.
- Resists damage from water, salt, and deicing products.
- Requires no mixing or special handling before use.
- Supports traffic immediately after placement and compaction.

Conform to the following gradation:

SIEVE SIZE	PERCENT PASSING (by weight)
1/2-inch (12.5 mm)	100
3/8-inch (9.5 mm)	90 - 100
No. 4 (4.75 mm)	90 max
No. 8 (2.38 mm)	20 - 65
No. 200 (0.074 mm)	2 - 10
Bitumen	4.8 - 5.4

The department will accept cold patch based primarily on the engineer's visual inspection. The department may also test for gradation.

C Construction

Stockpile cold patch on site on a smooth, firm, well-drained area cleared of vegetation and foreign material. Cover the stockpile and ensure that it is easily accessible. Replenish the stockpile throughout the project duration but limit the size at any given time to 10 tons on site unless the engineer approves otherwise. Dispose of unused material at project completion unless the engineer directs otherwise.

Place cold patch by hand. Remove ponded water and loose debris before placement. Compact flush with a tamper, roller, or vehicle tire after placement.

Refill patched areas as necessary to maintain a flush pavement surface until project completion.

D Measurement

The department will measure Cold Patch by the ton, acceptably stockpiled on site.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

Payment for Cold Patch is full compensation for providing and maintaining patches; for furnishing and replenishing stockpiled material on-site; and for disposing of excess material at project completion.

stp-495-010 (20160607)

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

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

Concrete Masonry Bridges	Concrete Masonry Retaining Walls
Concrete Masonry Bridges HES	Concrete Masonry Retaining Walls HES
Concrete Masonry Culverts	Concrete Masonry Endwalls
Concrete Masonry Culverts HES	Concrete Masonry Overlay Decks
Concrete Barrier Single-Faced 32-Inch	Concrete Barrier (type)
Concrete Barrier Double-Faced 32-Inch	Concrete Barrier Fixed Object Protection (type)
Concrete Barrier Transition Section 32-Inch	Concrete Barrier Transition (type)

Replace standard spec 501.4 and 501.5 with the following:

501.4 Measurement

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

501.5 Payment

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

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

- (2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.
- (3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; and for preparing, transporting, storing, protecting and curing concrete.
- (4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

stp-501-010 (20210708)

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

A Description

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

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

B Materials

B.1 General

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

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

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

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

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

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

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

B.3 Control of Material

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

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

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

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

C Construction

C.1 General

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

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

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

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

C.2 Splices

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

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

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

D Measurement

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

E Payment

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

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

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

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

stp-505-005 (20190618)

46. 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 & 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 in accordance with 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 in accordance with 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)

47. **Concrete Staining B-13-924 NB, Item 517.1010.S.001;**
Concrete Staining B-13-924 SB, Item 517.1010.S.002;
Concrete Staining B-13-926 NB, Item 517.1010.S.003;
Concrete Staining B-13-926 SB, Item 517.1010.S.004;
Concrete Staining B-13-930 NB, Item 517.1010.S.005;
Concrete Staining B-13-930 SB, Item 517.1010.S.006;
Concrete Staining B-13-932, Item 517.1010.S.007;
Concrete Staining B-13-933, Item 517.1010.S.008;
Concrete Staining B-13-934, Item 517.1010.S.009;
Concrete Staining R-13-407, Item 517.1010.S.010;
Concrete Staining R-13-408, Item 517.1010.S.011;
Concrete Staining R-13-409, Item 517.1010.S.012.

A Description

This special provision describes providing a two-coat concrete stain on the exposed concrete surfaces of structures as the plans show.

B Materials

B.1 Mortar

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

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

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

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

B.2 Concrete Stain

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

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

C Construction

C.1 General

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

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

C.2 Preparation of Concrete Surfaces

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

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material and that the surface will

accept the coating material according to product requirements. As a minimum, clean the surface using a 3000-psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to produce an acceptable surface texture. Correct any surface problems resulting from the surface preparation methods. Grit blasting of the concrete surface is not allowed.

C.3 Staining Concrete Surfaces

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

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

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

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

C.4 Test Areas

Before applying stain to the structure, apply the stain to sample panels measuring a minimum of 48 inches x 48 inches and constructed to demonstrate workmanship in the use of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, before staining. Prepare the concrete surfaces of the sample panels and apply stain using the same materials and in the same manner as proposed for the structure, including staining of the joints between the stones produced by the form liner if applicable. Do not apply stain to the structure until the department approves the test panels.

C.5 Surfaces to be Coated.

Apply concrete stain to the surfaces according to the plan.

D Measurement

The department will measure Concrete Staining (Structure) in area by the square foot of surface, acceptably prepared and stained.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.001	Concrete Staining B-13-924 NB	SF
517.1010.S.002	Concrete Staining B-13-924 SB	SF
517.1010.S.003	Concrete Staining B-13-926 NB	SF
517.1010.S.004	Concrete Staining B-13-926 SB	SF
517.1010.S.005	Concrete Staining B-13-930 NB	SF
517.1010.S.006	Concrete Staining B-13-930 SB	SF
517.1010.S.007	Concrete Staining B-13-932	SF
517.1010.S.008	Concrete Staining B-13-933	SF
517.1010.S.009	Concrete Staining B-13-934	SF
517.1010.S.010	Concrete Staining R-13-407	SF
517.1010.S.011	Concrete Staining R-13-408	SF
517.1010.S.012	Concrete Staining R-13-409	SF

Payment is full compensation for furnishing and applying the two-coat system; for preparing the concrete surface; and for preparing the sample panels.

stp-517-110 (20140630)

517-110

48. Concrete Sidewalk 7-Inch, Item 602.0420.

This special provision describes constructing sidewalks conforming to standard spec 602 as modified in this special provision.

Replace standard spec 602.3.2.5.1 (3) with the following:

1. Saw contraction joints no less than 1/4 of the depth and approximately 1/8 inch wide. Perform the sawing as soon as possible after the concrete sets sufficiently to prevent raveling during sawing and before shrinkage cracking occurs.

49. 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)

50. 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)

51. 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)

**52. Silt Fence Heavy Duty, Item 628.1530.S;
Silt Fence Heavy Duty Maintenance, Item 628.1535.S.**

A Description

This special provision describes furnishing, installing, maintaining, repairing, and removing heavy duty silt fence as the plans show, as directed by the engineer, and as hereinafter described.

B Materials

Provide Silt Fence Heavy Duty consisting of a composite of fence posts, fence fabric, geotextile fabric, sand bags or rock bags, and fasteners to be assembled by the contractor.

Furnish new or salvaged notched conventional metal "T" or "U" shaped fence posts with a length of 8 feet and minimum weight of 1.25 lb/ft.

Furnish new fence fabric, or salvaged fence fabric that is free of rust or other structural defects, conforming to standard spec 616.2.2.1 or 616.2.3.2, or one of the following alternatives:

- Woven wire fence - Standard field fence type, minimum 14-½ gauge wire, maximum mesh spacing of 6 inches, and a height of 4 feet.
- Chain link fence – minimum 12-½ gauge, maximum 2.5-inch diamond pattern, and a height of 4 feet.
- Welded wire fence – minimum 14 gauge, maximum mesh spacing of 4 inches, and a height of 4 feet.

Furnish Geotextile Fabric Type HR according to standard spec 645.2.2.7.

Furnish sand bags according to standard spec 628.2.8 or rock bags according to standard spec 628.2.13.

Furnish wire ties, nylon zip ties, or other engineer approved materials.

C Construction

Complete the installation prior to any ground disturbing activities within the drainage area adjacent to the required location. Construct according to the plan details and as described below.

Install posts with a minimum embedment of two feet and as necessary to provide a stable fence system.

Attach fence fabric to posts with at least three ties on each post (top, middle, bottom).

Attach geotextile fabric to fence fabric and/or posts at a maximum spacing of every 2 feet along the top and additionally as necessary to prevent displacement or damage by wind and wave actions. Overlap joints in the geotextile fabric by a minimum of 12 inches. Excess geotextile fabric may be cut or draped over the backside of the fence system.

Secure the bottom of the geotextile fabric by either of the following methods:

- For installation in wet conditions, anchor the lower flap of the geotextile fabric to the ground using a continuous line of sand bags or rock bags. The lower flap shall be a minimum width of 1 foot.
- For installation in dry conditions, bury the bottom edge in a trench that is a minimum of 4 inches wide and 6 inches deep. Fold material to fit trench and backfill and compact trench with excavated soil.

Maintain the fence throughout construction and until removal. Repair or replace fence materials as necessary. Remove sediment whenever it accumulates to approximately one-half the original fence height and as directed by the engineer. Remove all sediment prior to final stabilization.

Keep system in place until the site is permanently vegetated and is ordered for removal by the engineer. Clean up and restore the surface after removal.

D Measurement

The department will measure Silt Fence Heavy Duty by the linear foot, acceptably completed, measured along the base of the fence, center-to-center of end post, for each section of fence.

The department will measure Silt Fence Heavy Duty Maintenance by the linear foot, acceptably completed, measured along the base of the fence, end-to-end of the section maintained, for each time a section of fence is cleaned and repaired.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
628.1530.S	Silt Fence Heavy Duty	LF
628.1535.S	Silt Fence Heavy Duty Maintenance	LF

Payment for Silt Fence Heavy Duty is full compensation for erecting fence, including excavating or trenching, posts, geotextile fabric, sand bags or rock bags, backfilling, removal, restoration, and disposal.

Payment for Silt Fence Heavy Duty Maintenance is full compensation for required cleaning and repairing; for removing and disposing sediment or spreading accumulated sediment to form a surface suitable for seeding; and for replacing fence and damages caused by overloading sediment material or ponding water adjacent to fence.

stp-628-005 (20220628)

53. Erecting State-Owned Signs Type II, Item 638.3620.

This special provision describes erecting city owned signs conforming to standard spec 638.

Replace standard spec 638.3.7 with the following:

- (1) Under the Erecting State-Owned Signs Type II bid item, load city-furnished signs from the City Of Madison Sign Shop located at 1120 Sayle Street and transport and erect the signs at required locations.
- (2) Notify Phil Nehmer (608) 266-4769, pnehmer@cityofmadison.com, 10 calendar days before proposing to load and haul the signs so the city has sufficient time to make them available.
- (3) Erect city-furnished signs as specified for erecting signs in 634 through 637.

54. Field Facilities

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, provide a weekly cleaning service, and stock with sanitary supplies for the duration of the contract.

Supplement standard spec 642.2.2.1 (2) with the following:

Provide CAT 5 services with a minimum of six CAT 5 receptacles.

Replace standard spec 642.2.2.1 (3) with the following:

Provide and maintain a plan-paper photocopier with scanner with the following characteristics:

- Uses toner, not ink.
- Has auto-feed capability.
- Can copy and scan both 8 1/2" x 11" and 11" x 17" paper.
- Can output a PDF of a copied or scanned document.

Replenish paper, toner cartridges, and other supplies before fully expended.

Add standard spec 642.2.2.1 (5) as follows:

Provide a field office having an adjacent hard surface parking facility with a minimum capacity of 16 passenger vehicles.

Replace standard spec 642.2.2.4 with the following:

Under bid item Field Office Type D, furnish a facility with a minimum interior space of 1,500 square feet including a meeting room that is at least 20 feet by 20 feet; furnish indoor sanitary facilities that are housed within, or directly adjacent to, the field office; clean, maintain, and supply the field office and sanitary facilities weekly; and equip with the following:

- Ten suitable office desks with drawers and locks.
- Ten ergonomically correct office chair in working condition according to standard spec 642.2.2.1 (4).
- Two four-drawer file cabinets.
- Two four-shelf bookcases.
- Four 2.5 x 5 foot (minimum) tables.
- Four 4 x 8 foot (minimum) tables for the meeting room.
- Twenty, or more folding chairs.

Add standard spec 642.5 (4) as follows:

(4) Payment of the field office if full compensation for providing a weekly cleaning service for the field office and sanitary facilities, for providing sanitary supplies as necessary, for replenishing paper, toner

cartridges, and other supplies before fully expended, for maintaining the photocopier/scanner in working order at all times and for providing and supporting CAT 5 services.

55. Nighttime Work Lighting-Stationary.

A Description

This special provision describes furnishing portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

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

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

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

C.2 Portable Lighting

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

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

C.3 Light Level and Uniformity

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

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

C.4 Glare Control

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

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

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.

2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

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

C.5 Continuous Operation

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

D (Vacant)

E Payment

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

stp-643-010 (20100709)

56. Connected Arrow Board, Item 643.0810.S.

A Description

This special provision describes providing, repositioning, operating, maintaining, monitoring, and removing connected arrow board(s) capable of reporting real-time work zone lane closure information to Wisconsin 511 and third-party vendors.

B Materials

Furnish items from the department's approved products list.

C Construction

C.1 General

Follow all requirements in Spec 643.3.

Place connected arrow board per plan or as the engineer directs.

Ensure the connected arrow board operates continuously when deployed on the project.

Ensure the connected arrow board and work zone location markers are from the same manufacturer.

Provide a local specialist to respond to emergency situations within 2 hours of being notified. Equip local specialist with sufficient resources to correct deficiencies in the connected work zone start and end location markers.

C.2 Testing and Configuration

Prior to deployment, test the connected arrow board with the engineer to ensure the device is showing in the WZDx Device Feed. Send an email to DOTBTOWorkzone@dot.wi.gov to notify BTO that the devices have been turned on.

C.3 Programming

Connected arrow board may be switched between the following pattern displays per the plan:

- Blank
- Right Arrow Static
- Right Arrow Flashing
- Right Arrow Sequential
- Left Arrow Static
- Left Arrow Flashing
- Left Arrow Sequential

When the connected arrow board is not displaying a pattern, the display shall be blank and the connected arrow board transmits its status to the data feed. When a connected arrow board is switched to a pattern, the connected arrow board transmits its location and its current operating mode to the data feed.

The connected arrow board and the remote management software shall provide a public GeoJSON/API feed, updated at least every minute, compliant with FHWA's Work Zone Data Exchange (WZDx) v4.2 (<https://www.transportation.gov/av/data/wzdx>) Device Feed specification.

C.3 Reporting

If requested by the engineer, provide real-time status change alerts to a list of designated personnel via text and/or email. Send an alert each time a connected arrow board is switched between operating modes (e.g., each time a connected arrow board is switched between blank, flashing left arrow mode and flashing right arrow mode). Include the current operating mode, the previous operating mode, the date and time of the mode switch, and the location (latitude and longitude) of the device at the time of the mode switch in the alert.

D Measurement

The department will measure the connected arrow board by the day, acceptably completed, measured per roadway.

The department will not measure the connected arrow board on days it is not required.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.0810.S	Connected Arrow Board	DAY

Payment is full compensation for providing, repositioning, operating, maintaining, monitoring, testing, and removing the connected arrow board.

The department will deduct one day for each calendar day the connected work zone start and end location markers is required but out of service for more than 2 hours.

stp-643-012 (20250108)

57. Connected Work Zone Start and End Location Markers, Item 643.1220.S.

A Description

This special provision describes providing, repositioning, operating, maintaining, monitoring, and removing connected work zone start and end location markers capable of reporting real-time work zone location information to Wisconsin 511 and third-party vendors.

B Materials

Furnish items from the department's approved products list.

C Construction

C.1 General

Follow all requirements in Spec 643.3.

Place work zone start location marker at the beginning of the work zone per plan or as the engineer directs. Clearly label the work zone start location marker so that it is easily distinguishable by field personnel.

Place work zone end location marker at the end of the work zone per plan or as the engineer directs. Clearly label the work zone end location marker so that it is easily distinguishable by field personnel.

Ensure the connected work zone start and end location markers operate continuously when deployed on the project.

Ensure the work zone location markers and connected arrow board are from the same manufacturer.

Provide a local specialist to respond to emergency situations within 2 hours of being notified. Equip local specialist with sufficient resources to correct deficiencies in the connected work zone start and end location markers.

C.2 Testing and Configuration

Prior to deployment, test the connected work zone start and end location markers with the engineer to ensure devices are showing in the WZDx Device Feed. Send an email to DOTBTOWorkzone@dot.wi.gov to notify BTO that the devices have been turned on.

C.3 Programming

When the work zone start location marker is switched to the ON mode, the begin location marker transmits to the data feed its location and identity as a work zone start location marker. The end location marker functions similarly.

The connected work zone start and end location markers and their remote management software shall provide a public GeoJSON/API feed, updated at least every minute, compliant with FHWA's Work Zone Data Exchange (WZDx) v4.2 (<https://www.transportation.gov/av/data/wzdx>) Device Feed specification.

Switch the work zone start and end location markers to OFF mode when temporary traffic control is removed, and the normal traveled way is restored.

C.4 Reporting

If requested by the engineer, provide real-time status change alerts to a list of designated personnel via text and/or email. Send an alert each time the connected work zone start and end location markers are switched between operating modes (e.g., each time a work zone start/end location marker is switched between ON mode and OFF mode). Include the date and time of the mode switch, and the location (latitude and longitude) of the device at the time of the mode switch in the alert.

D Measurement

The department will measure the connected work zone start and end location markers by the day, acceptably completed, measured per roadway.

The department will not measure the connected work zone start and end location markers on days they are not required.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1220.S	Connected Work Zone Start and End Location Markers	DAY

Payment is full compensation for providing, repositioning, operating, maintaining, monitoring, testing, and removing the complete system consisting of connected work zone start and end location markers.

The department will deduct one day for each calendar day the connected work zone start and end location markers is required but out of service for more than two hours.

stp-643-122 (20250108)

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

A Description

This special provision describes installing proposed conduits into an existing pull box.

B Materials

Use conduits, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the standard spec.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole, or holes, for entering conduits 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 respective drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

The department measure Install Conduit Into Existing System by the unit, acceptable 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 will constitute multiple units of payment.

E Payment

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

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

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

stp-652-070 (20230629)

59. Lamp, Ballast, LED, Switch Disposal by Contractor, Item 659.5000.S..

A Description

This special provision describes the detachment and packaging of lamps, ballasts, LEDs, and mercury containing switches (e.g., overhead roadway lighting, underdeck bridge, wall packs, pedestrian signals, traffic control stop lights and warning flashers, fluorescent bulbs, and thermostats) removed under this contract for disposal as hazardous materials.

For Lamp, Ballast, LED, Switch Disposal by Contractor, coordinate removal from the work site by the department's hazardous waste disposal vendor. Disposal will be billed to the department by the hazardous waste disposal vendor.

B Materials

B.1 Disposal by Contractor

Items removed under this contract will be considered the property of the department for waste generator identification. The contractor is responsible for coordinating with the department's hazardous waste vendor for disposal:

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

C Construction

C.1 Removal

Arrange for the de-energizing of luminaires after receiving approval from the engineer that the existing luminaires can be removed. Do not remove luminaires that cannot be replaced with proposed LED units and operational within the same workday. The new LED units need to be operational prior to sunset of the same workday.

Detach and remove luminaires and lamps from the existing traffic signal poles or respective structure. Avoid breaking fixtures whenever possible.

Lamps, ballasts, LED, and switches will become property of the department, and will be disposed of in an environmentally sound manner.

C.2 Packaging of Hazardous Materials

Provide a secure, level location removed from the travelled way for storage of the material for disposal.

Pack intact fixtures in the packaging of the new lamps used to replace them, or packaging affording the equivalent protection. Place in full, closed stackable cartons.

Pile cartons no more than four high if palletized and secure cartons with shrink wrap to prevent shifting or falling of the loads. Clearly mark each pallet with the words "Universal Waste Lamps" or "Universal Waste Ballasts", the date, and the number of fixtures on each pallet.

Pack broken fixtures into (min.) 6 mil thick plastic bags and place inside sturdy cardboard boxes or the equivalent. Mark the outer packaging with the term "Broken Fixtures/Lamps", the date and the number of broken fixtures clearly marked on the box.

The hazardous waste vendor will not accept fixtures improperly packaged. The vendor will reject any fixtures not removed as part of a contract pay item or otherwise required under this contract.

Pack ballasts and mercury containing switches in appropriate containers.

C.3 Disposal by Contractor

Complete the lamp and ballast inventory (<https://wisconsin.gov/Documents/doing-business-with-wisconsin/consultants/cnslt-rsrcs/environment/dotlampballastinventory.dotx>) and contact the hazardous waste vendor to coordinate pickup and disposal at a location specified by the contractor. Consolidate all pallets and boxes from one project at a single location. Contact the hazardous waste vendor to set up an appointment for pickup. The hazardous waste vendor requires a minimum of one week advance notice to schedule pickup.

D Measurement

The department will measure Lamp, Ballast, LED, Switch Disposal by Contractor as each individual unit removed and received by the hazardous waste vendor, properly packaged and acceptably completed, matching the total number of units provided on the inventory form. The department will not measure broken fixtures that exceed a total of 10 percent of all fixtures to be disposed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH

Payment for Lamp, Ballast, LED, Switch Disposal by Contractor is full compensation for detachment, handling, packaging, labeling and scheduling disposal with the hazardous waste vendor; and scrapping and disposal of all other materials.

stp-659-500 (20220628)

60. Installing and Maintaining Bird Deterrent System Station 88+50, Item 999.2000.S.001; Installing and Maintaining Bird Deterrent System Station 108+00, Item 999.2000.S.002; Installing and Maintaining Bird Deterrent System Station 113+00, Item 999.2000.S.003.

A Description

This special provision describes inspecting, installing and/or maintaining approved deterrents that prevent migratory bird nesting on bridges and culverts. Swallows or other migratory birds' nests have been observed on or under the existing culvert or bridge at the station identified. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. One deterrent system shall be installed and/or maintained for each applicable structure. Deterrent methods selected shall be appropriate for structure type, size and/or site-specific constraints.

B Materials

B.1 Hardware and Lumber

Lumber, hardware, and fastening devices shall be durable enough to last through the length of the nesting season. Fastening devices and deterrence systems must be approved by the engineer prior to installation on culverts and bridges that will remain in service after removal of deterrent systems. The method of fastening should not compromise the culvert or bridge concrete surfaces or steel protection systems. The attachment locations must be restored and repaired as needed by use of engineer approved fillers, sealers and paint systems.

B.2 Netting Materials

Exclusion netting is material either wrapped around or draped and fastened to bridge decks/abutments and culvert corners to prevent bird entry.

Furnish exclusionary netting to deter nesting in bridge decks and abutments and corners of box culverts, consisting of either:

- a. 1/2" x 1/2" or 3/4" x 3/4" knotless, flame resistant, U.V. stabilized polyethylene or polypropylene netting with minimum 40-pound breaking strength per strand, or engineer approved equal.
- b. Galvanized wire mesh (hardware cloth) with a wire diameter of .040 inches (19-gauge) and opening width of 1/2-inch.

At a minimum, use either 1" x 2" (nominal) lumber or 3/4" x 2" pressure treated plywood strips and of equal length as the netting.

B.3 Plastic Strip Curtain

Plastic strip curtains are strips of plastic attached to vertical surfaces in areas suitable for nesting.

Furnish 3-foot wide lengths of 6 mil minimum plastic sheeting with the lower 2 feet cut into vertical strips 2 inches wide.

At a minimum, use either 1" x 2" (nominal) lumber or 3/4" x 2" pressure treated plywood strips and staples to attach plastic strips to wood to fabricate the strip curtain.

Furnish concrete screws to attach strip curtain to structure.

B.4 Corner Slope Materials

Corner slopes are pieces of curved plastic placed in corners suitable for nesting. They are particularly effective in preventing nesting in top corners of box culverts.

Furnish U.V. stabilized pre-fabricated PVC or polycarbonate corner slopes from commercial bird-deterrent manufacturers or an approved equal.

C Construction

C.1 General

If active nests are observed after construction starts, or if a trapped bird or an active nest is found, stop work that may affect birds or their nests, and notify the engineer to consult with the Wisconsin Department of Natural Resources transportation liaison at Eric Heggelund, at 608-228-7927 or the department regional environmental coordinator Brian Taylor, at 608-245-2630.

Efforts should be made to release trapped birds, unharmed.

C.2 Nest Removal

Remove unoccupied nests prior to the beginning of the nesting season as designated in Prosecution and Progress. Nest removal involves the removal and disposal of unoccupied or partially constructed nests without eggs or nestlings. Removing all evidence of nesting (e.g. cleaning droppings from structures) eliminates a visual cue for a potential breeding location, especially for first-time breeders. Nest removal is not a type of deterrent and does not prevent nest establishment but can delay the process. As such, it should only be used in conjunction with other methods. It cannot be used on its own to ensure compliance. Nest removal is not required if deterrents are installed before the start of the avoidance window unless nests interfere with successful installation of the deterrent.

Remove nests on the structure by scraping or pressure washing prior to established avoidance windows to deter nesting. Remove only unoccupied or partially constructed nests without eggs or nestlings. Remove newly built nests every two days before eggs are laid. Nest removal is intended to be used prior to and in conjunction with other nesting deterrents.

C.3 Exclusion Netting

C.3.1 Installation

Using concrete screws, anchor lumber to bridge or culvert along perimeter of intended netting. Fasten netting to lumber until netting is held taut. Use the minimum length of lumber and netting necessary to avoid sections of netting that are not flush to the bridge or culvert. Eliminate any loose pockets or wrinkles that could trap and entangle birds or other wildlife. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

For culverts, attach netting at a 45-degree angle at the culvert corner so it extends at least 12" below the corner.

C.4 Plastic Curtains

C.4.1 Installation

Attach plastic curtains along the entire length of vertical surface or corner on which nest building is to be deterred. Affix plastic curtain strips to treated lumber with staples spaced a minimum of 1-foot O.C. Wrap plastic curtains around lumber prior to attaching it to the structure to reduce the likelihood of it tearing out at the staples. Screw lumber into the underside of the bridge deck or top of box culvert with concrete screws placed 24-inches O.C. minimum.

C.5 Corner Slopes

C.5.1 Installation

Attach corner slopes to the structure per the manufacturer's recommendations. Use urethane-based adhesives if manufacturer supplied hardware or adhesives are not available, or no recommendations are provided. Install end caps or seal ends of corner slopes to prevent entry of birds or other animals.

C.6 Inspection and Maintenance

Inspect bird deterrent devices every two weeks both during and prior to construction when deterrents have been installed to exclude birds prior to nesting windows, and after large storm events or high winds. Ensure that netting is taut, that no gaps or holes have formed, and that the nets are functioning properly. Ensure that the corner slopes are not cracked or otherwise damaged and are functioning properly. Ensure that curtains are undamaged, with no tears, holes, or creases. Repair any damaged or loose deterrent devices. Inspect, maintain, and repair nesting deterrents whether installed by the contractor or others. Repair, replace, supplement deterrents as necessary with materials meeting the requirements of this specification.

Remove any unoccupied or partially constructed nests without eggs or nestlings.

Repair deterrents to prevent birds from attempting to nest again.

Record all inspection, removal, and maintenance activities. Provide inspection, removal and maintenance records to the engineer upon request.

C.7 Removal and Structure Repair

Maintain the deterrent until the engineer determines that the deterrent is deemed no longer necessary. Upon completion of the project, remove any remaining migratory bird deterrent from the project site. If the existing bridge or culvert is to remain after construction, restore and repair as needed by use of engineer approved fillers, sealers and paint systems.

D Measurement

The department will measure Installing and Maintaining Bird Deterrent System (Station) as a single unit at each structure, acceptably completed.

The department will measure Maintaining Bird Deterrent System (Station) as a single unit at each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
999.2000.S.001	Installing and Maintaining Bird Deterrent System Station 88+50	EACH
999.2000.S.002	Installing and Maintaining Bird Deterrent System Station 108+00	EACH
999.2000.S.003	Installing and Maintaining Bird Deterrent System Station 113+00	EACH

Payment for Installing and Maintaining Bird Deterrent System is full compensation for providing and installing deterrents that prevent migratory bird nesting; removing and disposing of unoccupied or partially constructed nests without eggs or nestlings; maintaining, repairing, replacing, supplementing, existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

Payment for Maintaining Bird Deterrent System is full compensation for inspecting structures for the presence of migratory birds, inspecting deterrents installed by others; maintaining, repairing, replacing, and supplementing existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

stp-999-200 (20240105)

61. Pea Gravel 3/8-Inch, Item SPV.0035.001.

A Description

This special provision describes furnishing and installing a pea gravel filter under a bio-filter basin.

B Materials

Furnish rounded pea gravel that is washed and meets the specification for ASTM C33 – 3/8" aggregate.

C Construction

Place pea gravel in depth, line, and grade as shown in the plans.

D Measurement

The department will measure Pear Gravel 3/8-Inch 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
SPV.0035.001	Pea Gravel 3/8-Inch	CY

Payment is full compensation for furnishing and placing the pea gravel.

62. Engineered Soil, Item SPV.0035.002.

A Description

This special provision describes providing and placing engineered soil in the bio-filtration swale.

B Materials

Furnish a soil mixture that consists of a mixture of sand and compost. The mix shall be free of rocks, stumps, roots, brush, or other materials over 1 inch in diameter. No other materials shall be mixed with the soil that may be harmful to plant growth or prove a hindrance to planting or maintenance. The mix shall be designed to the following percentages by volume:

Engineered Soil Component	% Composition By Volume
Sand	70-85
Compost	15-30

The sand used in the engineered soil mix shall mee the following requirements:

1. Shall be crushed and screened sandstone.
2. 100% passing a No. 4 sieve
3. Maximum of 5% passing a No. 200 sieve

The compost used in the engineered soil mix shall mee the following requirements:

1. Particle Size – 98% of the compost shall pass through a 0.75-inch screen
2. Physical Contaminant – Less than 1% combined glass, metal and plastic.
3. Organic Matter/Ash Content – At least 40% organic matter; less than 60% ash content.
4. Carbon to Nitrogen Ratio – 10-20:1 C:N ratio.
5. pH – Between 6 and 8.
6. Soluble Salts – Electrical conductivity below 10 dS m-1 (mmhos cm -1).
7. Moisture Content – Between 35% and 50% by weight.
8. Maturity – The compost shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, in concentrations toxic to plant growth.

9. Residual Seeds & Pathogens – Pathogens and noxious seeds shall be minimized.
10. Pathogens – The compost shall meet the Class A requirements for pathogens as specified in s. NR 204.07(6)(a), Wis. Adm. Code.
11. Other Chemical Contaminants – The compost shall meet the high-quality pollutant concentrations as specified in s. NR 204.07(5)(c), Wis. Adm. Code.

Provide a 1-gallon sample with testing data certifying compost items 1-7 to the engineer not less than 30 calendar days prior to installation.

C Construction

The engineered soil shall be thoroughly mixed offsite and placed on a 4-inch layer of pea gravel following the lines, grades, dimensions, and elevations as shown in the plans.

D Measurement

The department will measure Engineered Soil 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
SPV.0035.002	Engineered Soil	CY

Payment is full compensation for furnishing, mixing, and placing the engineered soil in the bio-filtration swale.

63. HPC Masonry Structures, Item SPV.0035.201.

A Description

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502 and 509, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement, Cast-in-Place Barrier and Structures.

B Materials

501.2.7.3 Coarse Aggregates

501.2.7.3.1 General

Replace the entire text of 501.2.7.3.1 with the following:

- (1) Provide coarse aggregates from a department-approved source. Use an approved source listed on the APL or follow the source approval process specified in standard spec 106.3.4.2. In addition to the requirements of standard spec 106.3.4.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and lightweight pieces at least once per calendar year when producing coarse aggregates for use in high-performance concrete mixes.
- (2) Use clean, hard, durable crushed limestone or crushed gravel free of excess flat and elongated pieces, lightweight particles, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.
- (3) Use virgin aggregates only.
- (4) Contact the engineer a minimum of 6 weeks prior to placement to collect a sample of the concrete aggregates proposed for the project. The engineer will obtain the sample or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.
- (5) The department test results will be used for aggregate acceptance.
- (6) The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete masonry structures.

501.2.7.3.2 Physical Properties

Replace 501.2.7.3.2 paragraph one with the following:

- (1) Furnish coarse aggregates approved for use in concrete masonry structures and conforming to the following:

Aggregate Quality Test	Test Method	Maximum Percent by Weight
LA Wear (100 and 500 revolutions) ^[1]	WTM T96	30
Sodium Sulfate Soundness (R-4, 5 cycles) ^[1]	WTM T104	6
Freeze-Thaw Soundness ^[1]	WTM T103	12
Lightweight Pieces ^{[1] [2]}	WTM T113	2.0

- (1) Coarse aggregate sizes used in the Portland Cement Concrete mixture design (DT2221 Concrete Mixture Design – Optimized Aggregate Gradation) will be tested individually and the results weighted by the blend percentage listed in the mix design. Do not consider fine aggregate percentage as part of the weighted result.
- (2) Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

501.2.7.3.3 Deleterious Substances

Replace 501.2.7.3.3 paragraph one with the following:

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

Deleterious Substance	Test Method	Maximum Percent by Weight
Coal, clay lumps, shale, and other deleterious substance	Visual	3.0
Flat or elongated pieces based on a 3:1 ratio ^[1]	WTM D4791	15.0
Materials passing the No. 200 sieve	WTM T11	1.5

501.2.8 Concrete Curing Materials

Replace entire text with the following:

- (1) Furnish burlap conforming to AASHTO M 182, class 1, 2, 3 or 4.

710.5 Sampling and Testing

Supplement 710.5 with the following:

710.5.8 Chloride Penetration Resistance

- (1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T277 at a frequency of 1 test per 3 months (quarterly) of production.
- (2) Strip permeability samples from molds and wet cure according to AASHTO T277 Accelerated Moist Curing. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T277.
- (3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on AASHTO T277. Quarterly chloride resistance test results exceeding 1500 coulombs, the department will require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

715.2.2 Class I Concrete Mixes

715.2.2.2 Structures

Supplement 715.2.2.2 with the following:

- (5) Provide a mix design using optimized aggregate gradation and a cementitious content within the range of 470 to 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, concrete mixtures must use an IL, IP, IS, or IT blended cement.

- (6) In addition to the standard spec mix design laboratory trial batching for structures, include the results of the following tests:
1. AASHTO T119 Slump of Hydraulic Cement Concrete.
 2. AASHTO T277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to 710.5.8 in this special provision.
- (7) 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 4000 psi.
- (8) Provide concrete with a maximum chloride penetration resistance of 1500 coulombs at 28-days.

C Construction

501.3.2.4.3.3 Extended Delivery Time

Delete 501.3.2.4.3.3 paragraph one.

501.3.5 Ready-Mixed Concrete

501.3.5.1 General

Replace 501.3.5.1 paragraph one with the following:

- (1) Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work performed under this special provision.

501.3.5.2 Delivery

Replace 501.3.5.2 paragraph three with the following:

- (3) Deliver and completely discharge all concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60 F or the use of department-approved retarders does not increase the discharge time.

501.3.7.1 Slump

Replace the entire text with the following:

- (1) Use a 2-inch to 4-inch slump.
- (2) Perform slump tests for concrete according to AASHTO T119 WTM.

501.3.8.2 Hot Weather Concreting

501.3.8.2.1 General

Replace the entire text with the following:

- (1) The contractor is responsible for the quality of concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.
- (2) If the concrete temperature at the point of placement exceeds 80 F, do not place concrete for items covered in this special provision.
- (3) The department will pay \$0.75 per pound for the quantity of ice required to reach a target concrete temperature of 75 F if the following conditions are met:
1. The un-iced concrete temperature exceeds 80 F.
 2. The contractor has performed the actions outlined in the contractor's accepted temperature control plan.
 3. The contractor elects to use ice.
- (4) Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

501.3.8.2.2 Bridge Decks

Replace the entire text with the following:

- (1) Do not place concrete for bridge decks when the air temperature is above 80 F.
- (2) For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer's written acceptance of that evaporation control plan. If the engineer accepts an evaporation control plan calling for ice, the department will pay \$0.75 per pound for that ice. Perform the work as outlined in the evaporation control plan.
- (3) If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.
- (4) Provide evaporation rate predictions to the engineer 24 hours before each bridge deck pour.
- (5) Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in [CMM 525](#), figure 1 or using a computerized equivalent. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.
- (6) At least 8 hours before each pour, the engineer will inform the contractor in writing whether to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the engineer's discretion, the contractor may be allowed to implement immediate corrective action and complete the pour.

502.3.5.4 Superstructures

Delete 502.3.5.4 paragraph five.

502.3.7.8 Floors

Replace 502.3.7.8 paragraph five with the following:

- (5) Set the rails or tracks that the finish machine rides on, to the required elevation; and ensure they adjust to allow for settlement under load. Support the rails or tracks outside the limits of the finished riding surface. Do not support rails or tracks on the tops of girders, or within the finished riding surface, without the engineer's written permission.

Delete 502.3.7.8 paragraph thirteen, fourteen, and fifteen. Add the following to 501.3.7.8:

- (19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.
- (20) Keep hand finishing, except for the edge of deck, to a minimum. Equip the finishing machine with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck within a timeframe acceptable to the engineer following the micro texture.
- (21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

502.3.8 Curing

502.3.8.1 General

Replace 502.3.8.1 paragraph 1 with the following:

- (1) Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

502.3.8.2 Curing Requirements

502.3.8.2.1 General

Replace entire text of 502.3.8.2.1 with the following:

- (1) Wet-cure the concrete for bridge decks, structural approach slabs, sidewalks on bridges and raised medians on bridges for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the

bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.

- (2) Do not uncover any portion of the deck at any time for any reason during the first 7 days of the curing period.
- (3) Set up and test the fogging system before each bridge deck, structural approach slab, bridge mounted sidewalk or bridge mounted raised median pour. Keep the fogging system set up and operational during the pour.

502.3.8.2.3 Decks

Delete the entire text.

502.3.8.2.4 Parapets

Replace the entire text with the following:

- (1) Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least 7 days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.8.
- (2) Secure coverings along all edges to prevent moisture loss.

502.3.9 Cold Weather Protection

502.3.9.6 Bridge Decks

Replace the entire text of 502.3.9.6 with the following:

- (1) Protect concrete in bridge decks as specified for structural masonry, and except for parapets and similar pours, according to the following requirements:
 1. Do not place concrete for bridge decks or other superstructure elements when the national weather service forecast for the construction area predicts temperatures to fall below 32 F within 24 hours, unless the engineer specifically allows or requires in writing.
 2. Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32 F during the cold weather protection period. Maintain a minimum temperature of 40 F in the enclosed area under the deck for the entire 14-day curing period.

D (Vacant)

E Payment

502.5.1 General

Replace 502.5.1 paragraph one with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.201	HPC Masonry Structures	CY

64. Temporary RRFB, Item SPV.0045.001.

A Description

This special provision describes providing, installing, maintaining, and removal of a temporary solar powered rectangular rapid flashing beacon (RRFB) system with pedestrian push buttons.

B Materials

Furnish all materials for a 2-stage pedestrian crossing that is ADA compliant and conforms to the MUTCD. The system shall be movable to adapt to in-field situations regarding traffic control and construction.

B.1 Flashing Module

Furnish flashing modules meeting the following criteria:

1. Meets 11th Ed. MUTCD (Chapter 4L)
2. Purpose-built optics meet SAE J595 class 1 intensity; meets SAE J578 chromaticity.
3. Stainless steel mounting brackets.
4. Black powder-coated light bar covers
5. Light bar configuration: uni-directional or bi-directional
6. 16' minimum flasher harness.
7. Flashers shall be capable of a 25 second flash time

B.2 Pedestrian Push Button

Furnish pedestrian push buttons meeting the following criteria:

1. ADA Compliant
2. 2-inch minimum pressable surface area
3. Visual LED confirmation
4. Locator tone
5. Audible voice message capability

B.3 Solar Power Module

Furnish solar power modules meeting the following criteria:

1. Top of pole mounting capability
2. Minimum 15 watt solar panel

B.4 Signs

Furnish signs in accordance with section 637 of the standard specifications and meets the standards set forth in the MUTCD.

C Construction

Construct and install the temporary RRFB in accordance with the manufacturer's recommendations.

Construct the temporary RRFB in a manner that is movable and able to be mounted on asphalt or concrete pavement without puncturing through the surface (i.e. temporary concrete bases). Locate the temporary push buttons that is in conformance with ADA requirements.

Construct and install signs in accordance with section 637 of the standard specifications.

Remove the temporary RRFB in accordance with section 204 of the standard specifications.

D Measurement

The department will measure Temporary RRFB by the number of days in use, 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.0045.001	Temporary RRFB	DAY

Payment is full compensation for furnishing, installing, maintaining, and removing all materials for the temporary RRFB system including all temporary supports, poles, guy wires, cables, and signs.

65. **Dewatering Project 5992-11-21, Item SPV.0060.001;
Dewatering Project 5992-11-22, Item SPV.0060.002;
Dewatering Project 5992-11-23, Item SPV.0060.003;
Dewatering Project 5992-11-24, Item SPV.0060.004;
Dewatering Project 5992-11-25, Item SPV.0060.005;
Dewatering Project 5992-11-26, Item SPV.0060.006;
Dewatering Project 5992-11-27, Item SPV.0060.007;
Dewatering Project 5992-11-28, Item SPV.0060.008.**

A Description

This section describes dewatering the site during construction or working with the water on-site in a manner that allows the project to be constructed in accordance with the plans and specifications. This item includes removal of any water entering a trench or excavation including but not limited to groundwater, surface water runoff and/or trench dewatering, both clean and potentially contaminated.

Groundwater is expected to be encountered during excavation for storm sewer, and possibly other excavations. Provide and maintain ample means and devices with which to promptly remove all water entering excavations, trenches, and other parts of the work and keep said excavations dry until the construction operations built therein are completed.

Installation of concrete or masonry structures will not be acceptable if placed in water or if water is allowed to rise over masonry or concrete and there is danger of flotation or of setting up unequal pressures in the concrete until the concrete has set at least 24 hours and any danger of flotation has been removed.

The contractor is responsible for all work, materials and equipment required to comply with permit conditions to dewater the site. At a minimum, pump water into a settling tank, or alternate method approved by the engineer, to settle solids prior to discharge into the storm sewer or lake for clean water and into the designated sanitary sewer for potentially contaminated water.

Potentially contaminated zones of groundwater may be encountered. Conform with the requirements of Section 205 of the Standard Specifications, pertinent parts of the Wisconsin Administrative Code (Department of Natural Resources Environmental Investigation and Remediation of Environmental Contamination, Chapters NR 700-736), as shown on the construction plan set, and as supplemented herein. Comply with all permit requirements and applicable regulations and monitor the discharge volume of potentially contaminated water generated as necessary to meet the permit requirements. This bid item is intended for all sub-surface work for which dewatering may be necessary including but not limited to grading, storm sewer, electrical, traffic signals, and structures.

B General

Discharge Clean water (of any type or from any source) to the storm sewer system or Lake Monona. For the purposes of this project suspended solids will be considered a type of contamination.

Provide all equipment and personnel necessary to conduct dewatering operations as required for the proper completion of the work. Prepare a dewatering plan and submit it to the engineer for review and approval prior to starting dewatering operations. The plan shall include a description of the proposed dewatering methods and maps or drawings indicating the location of the dewatering facilities and points of surface discharge of the water.

The contractor is solely responsible for choosing a method of water control that is compatible with the constraints defined. The contractor is responsible for the adequacy of the water control system and will take all necessary measures to insure that the water control operation will not endanger or damage any existing adjacent utility or structure.

Design, install and operate the method or methods of water control in such a manner as to provide satisfactory working conditions and to maintain the progress of work. Design the methods and systems so as to avoid settlement or damage to adjacent property in accordance with the applicable legislative statutes and judicial decisions of the State of Wisconsin. All required pumping, drainage and disposal of water will be done without damage to adjacent property or structures, or to the operations of other contractors and without interference with the access rights of public or private parties.

Review and approval of the dewatering plan does not relieve the contractor of the dewatering requirements stated in these specifications. The engineer assumes no liability for the performance or safety of the dewatering system.

Comply with all local ordinances and state statutes for the disposal of water from dewatering operations. Further, it is the contractor's responsibility to contact the Wisconsin Department of Natural Resources Private Water Supply Section prior to construction for dewatering discharge requirements and permits and to comply with all conditions of the Department of Natural Resources. In accordance with Paragraph 144.025(2)(e), Wisconsin Statutes, permits are required for all groundwater control wells that singly or in aggregate produce 70 or more gallons per minute. All wells shall be drilled and sealed in accordance with requirements of the WDNR for installing and abandoning wells. The contact for obtaining well permits is:

Wisconsin Department of Natural Resources
Private Water Supply Section
Box 7921
Madison, Wisconsin 53707
608.261.6421
<https://dnr.wisconsin.gov/topic/Wells/HighCap/Apply.html>

File a copy of the permit with the owner 48 hours prior to commencement of any dewatering.

Discharge potentially non TSS contaminated water to the sanitary sewer. Do not discharge contaminated groundwater without prior approval from the Environmental Consultant.

Obtain a *City of Madison Permit to Discharge to the Sanitary Sewer* compliant with all local ordinances and state statutes. The permit will require that the Contractor monitor the volume of total water discharged into the sanitary sewer and will determine the necessary reporting frequency. The contact for obtaining this permit is:

Megan Eberhardt
City of Madison Engineering
608-266-6432
meberhardt@cityofmadison.com

The City's Environmental Consultant will be responsible for obtaining the necessary approvals from the Madison Metropolitan Sewerage District (MMSD) for disposal of potentially contaminated groundwater. This approval will be issued at the same time as the *Permit to Discharge to the Sanitary Sewer*. Submit a dewatering plan to the City of Madison for approval with the application for *Permit to Discharge to the Sanitary Sewer*.

The contact for the City's Environmental Consultant is:

Brynn Bemis
City of Madison Engineering
608.267.1986
bbemis@cityofmadison.com

C Construction

Supplement section 205.3 of the standard specifications with the following:

Water shall not be allowed in trenches while pipe is being laid.

No masonry shall be installed in water nor shall water be allowed to rise over masonry or concrete if there is danger of flotation or of setting up unequal pressures in the concrete until the concrete has set at least 24 hours and any danger of flotation has been removed.

Dewater in such a manner that assures safe working conditions and provides stable trench side slopes and trench bottom for adequate support of the pipe and appurtenances. Dewater sufficiently to minimize or eliminate groundwater pressures below the proposed trench bottom which otherwise may tend to cause boiling or a "quick" condition at the trench bottom. Where silty sands or other impervious soils are encountered at and/or below the pipe zone, the dewatering equipment must be adequate to relieve the groundwater pressure below the impervious soil layer and accomplish sufficient drainage of the impervious soils to provide a stable trench bottom.

Pump water from the dewatering operations directly to a minimum 1,500 gallon holding tank, or alternate method approved by the engineer, to allow for settlement of large solids. Periodically pump clean water from the top of the settling tank into the storm sewer system or lake. Periodically pump potentially non TSS contaminated water from the top of the settling tank into the approved sanitary sewer. Provide a meter to measure the volume of potentially non TSS contaminated water discharged to the sanitary sewer system.

If free phase petroleum product such as gasoline floating on the water is observed during dewatering activities, terminate dewatering activities and notify the Engineer and the Environmental Consultant.

Notify the Engineer at least 3 calendar days in advance of any proposed changes to the dewatering plan.

Any flooding or erosion damage caused by dewatering operations is the responsibility of the contractor. If flooding or erosion damage occurs, take immediate steps to eliminate those conditions and to correct any damage. The control of all surface and subsurface water, ice, and snow are considered part of the dewatering. Erosion control shall be exercised at all times, including the placement of silt fences, sedimentation basins and any other devices necessary for proper control.

Dispose of all water removed so as not to endanger public health, private and public property or completed work. Use only electrically driven pumps for dewatering operations. Comply with local requirements for noise control for all equipment utilized as part of the dewatering system (Madison General Ordinance 24.08). Provide sufficient mufflers or other noise reduction devices necessary to minimize the noise of the equipment. If ordered by the engineer, reduce noise to an acceptable level (as determined by the engineer) or supply an alternate system capable of meeting the noise requirements. This applies to any equipment utilized as part of the dewatering system.

Provide stand-by equipment to maintain continuous dewatering in the event of mechanical breakdown to part of the system.

The contractor is responsible for removal and/or abandonment of dewatering wells. Removal and/or abandonment shall conform to all state and local regulations.

D Measurement

The department will measure Dewatering (Project) as each individual project acceptably completed.

Measure dewatering of potentially non TSS contaminated water and provide this information to the Engineer at the frequency determined by the *Permit to Discharge to the Sanitary Sewer*. This information will not be used as a basis of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.001	Dewatering Project 5992-11-21	EACH
SPV.0060.002	Dewatering Project 5992-11-22	EACH
SPV.0060.003	Dewatering Project 5992-11-23	EACH
SPV.0060.004	Dewatering Project 5992-11-24	EACH
SPV.0060.005	Dewatering Project 5992-11-25	EACH
SPV.0060.006	Dewatering Project 5992-11-26	EACH
SPV.0060.007	Dewatering Project 5992-11-27	EACH
SPV.0060.008	Dewatering Project 5992-11-28	EACH

Payment is considered full compensation for furnishing all work necessary for pumping, measuring potentially contaminated water, settling and discharging water, both clean and potentially contaminated; for paying permit fees required; for eliminating and correcting all flooding or erosion damage caused by dewatering operations.

No disposal fees are required by the City of Madison for discharge to the storm sewer system. The City of Madison will pay for any disposal fees required by MMSD for the discharge of water to the sanitary sewer system.

66. Settlement Monitoring, Item SPV.0060.009.

A Description

A.1 General

This special provision describes installing settlement plates and collecting data for the purpose of monitoring ground movement at the railroad during filling, excavation, subgrade preparation and pile driving operations.

A.2 Submittals

Submit the following specific information for information only, at least 30 days prior to installation:

- Drawings that indicate the locations of control points and benchmarks associated with surveys for monitoring settlement.
- Description of methods for installing and protecting all markers.
- Schedule of marker installation related to significant activities or milestones in the overall project.
- Plans for markers to be installed at contractor's option.

A.3 Quality Assurance

A.3.1 General

Notify the engineer at least 24 hours prior to all plate installation operations so that the engineer may monitor the installation work.

A.3.2 Control Points

Survey for monitoring settlement shall be referenced to the same control points and benchmarks established for setting out the work. Control points shall be tied to benchmarks and other monuments outside of the zone of ground movements that might result from underground excavations.

B Materials

Furnish 3/4-inch steel threaded rod (5-foot sections) mounted on 24-inch x 24-inch base plate.

C Construction

C.1 On-site Geotechnical Engineer

An on-site geotechnical engineer is required to monitor, collect, review, and interpret data regarding settlement during all filling, excavation, subgrade preparation, shoring installation and removal, and pile driving operations.

C.2 Pre-Construction and Post-Construction Condition Surveys (PCCS's)

Conduct a PCCS of the railroad corridor within 200 feet of potentially vibration producing activities which includes, but is not limited to, the existing railroad track. PCCS's shall include visually inspecting and recording all ground surface conditions. Photographs and videotapes shall be used to assist in documentation.

The PCCS shall include a topographic survey of the project limits. The survey shall provide elevations to a minimum of accuracy of 1/10 tenth of a foot.

Submit a written report to the engineer for each PCCS, detailing the visual and photographic investigation of the structures and topography. This report shall include copies of the photographs, videotape and topographic surveys and discuss any discrepancies and findings.

At a minimum, PCCS's shall be conducted prior to the start of construction activities and upon completion of construction activities.

C.3 Control Plan

A settlement control plan is to be created by the contractor and presented to the engineer a minimum of 30 days prior to any construction. The control plan shall discuss the following items:

1. Summary of the PCCS with established vibration limits.
2. A description of the proposed equipment
3. A description and understanding of the soil profile impacted by the construction upon the completion of driving pile for each abutment and pier.
4. A settlement monitoring procedure including:
 - a. Methods to taking settlement readings
 - b. Proposed times for taking settlement readings.
 - c. Locations of each settlement plate to be monitored.

- d. Anticipated settlement time frame.
 - e. Monitoring duration for baseline and daily settlement monitoring.
 - f. Mitigation plan to reduce potentially excessive settlement to acceptable limits.
5. A description of when and how reports will be generated.
 6. Obtain the engineer's acceptance seven calendar days before any filling operations.

C.4 Settlement Monitoring

Elevations of the existing railroad embankment must be monitored for settlement throughout the construction process. The embankment must be monitored by a grid spacing of 50 foot intervals (grid node) for all areas within 100 feet of activities described in the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43. Survey targets are also required to monitor the settlement of the railroad within 100 feet of vibration producing activities. A minimum of 4 high contrast survey targets are to be installed on the railroad surface. The x, y and z coordinates of each grid node and survey target is to be recorded. During demolition, shoring, and pile driving operations the grid nodes and survey targets are to be monitored on a daily basis. A report describing the location of the grid nodes and survey targets is to be created and submitted to the engineer during the following times:

1. Prior to any work being performed (baseline readings).
2. At the end of each day for demolition and pile driving operations.
3. Upon the completion of diving pile for each abutment.
4. Upon the completion of the bridge demolition.
5. Upon the completion of backfilling the embankment.
6. Upon removal of temporary shoring.

A maximum value for ground accelerations are limited to 0.07 g for granular fill and 0.1 g for breaker run, for the railroad embankment slope only. Any damage to other existing structures is the responsibility of the contractor.

The railroad structure has a parameter of ¼ inch displacement. Any displacements greater than ¼ inch will require pile driving operations to cease until the railroad can be contacted to determine if the displacement warrants track adjustments.

Note: If construction and monitoring are planned over winter months, the settlement plates shall be set below frost penetration depths.

D Measurement

The department will measure Settlement Monitoring as each location acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.009	Settlement Monitoring	EACH

Payment is full compensation for providing submittals, on-site geotechnical engineer work, furnishing all materials; for installing all settlement plates; for monitoring all existing and proposed elements for movement; for furnishing all survey required to monitor.

67. Precast Sign Post Base, Item SPV.0060.010.

A Description

This special provision describes constructing and installing precast sign post bases at locations shown on the plans and as hereinafter provided.

B Materials

All materials furnished for the work shall meet the requirements for the class of materials named.

Specific reference is made to the following sections of the standard specifications:

Concrete Masonry	standard spec 501
Steel Reinforcement	standard spec 505

Concrete Masonry shall be of a 3,200-psi minimum strength in 28 days. The 2-inch x 24-inch +1/3-inch insert shall be an ASTM Designation 120 A53 Fed Spec P404, Schedule 40 untreated black pipe 2-inch diameter, with a galvanized rigid conduit coupling installed.

C Construction

Form the 24-inch x 11-inch precast base according to the details in the plan. Weld the coupling and pipe over 50 percent of the circumference. Center the insert in the base and plumb with the vertical axis of the base, and place so that the coupling is flush 1/8 inch with the top of the troweled surface of the base. The bottom of the insert extends a minimum of 1/8-inch below the base and shall remain open to permit drainage. Weld 3/8-inch by 8-inch reinforcing bar to the insert 8 inches from the top of the base and 8 inches from the bottom of the base to prevent the insert from rotating within the concrete base.

Set the signpost bases at the locations shown on the plans. The center of the finished installation shall be 5'0" + inches from the face of the adjacent curb or from the edge of paved shoulder.

Upon request and reasonable notice from the contractor, the engineer will establish and stake the location for the sign post bases. The City of Madison Traffic Engineering Division Staff will verify all signpost base locations.

Coat the threads of the pipe and coupling in the base with graphite grease prior to assembly. Install the base and pipe as a unit, level with the finished grade of the surrounding surface with the pipe plumb. Tamp the material used for backfilling around the base in 6-inch layers to ensure the installation will remain plumb. Provide a one- year warranty that the signpost base installation shall remain plumb.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and satisfactorily repair and restore other work damaged by operations.

D Measurement

The department will measure Precast Sign Post Base as each individual unit, installed and accepted in place.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.010	Precast Sign Post Base	EACH

Payment is full compensation for furnishing all materials; for the manufacture of the sign post base; for hauling, handling and installing the sign post base, including backfill.

68. Sign Post Base for Concrete Installation, Item SPV.0060.011.

A Description

This special provision describes constructing and installing the sign post bases in concrete sidewalk or pavement at locations shown on the plans and as hereinafter provided.

B Materials

The 2-inch x 16-inch sign post base shall be an ASTM Designation 120 A53 Fed Spec P404, Schedule 40 untreated black pipe 2-inch diameter, with a galvanized rigid conduit coupling installed.

Waterproof anchoring cement for concrete shall be Unitex, Thorogrip 29/64 or equivalent.

C Construction

The sign post base shall consist of a 2-inch x 16-inch schedule 40 pipe with attached 2" rigid conduit galvanized coupling according to the details in the plan. Weld the coupling and pipe over 100 percent of the circumference.

Set the signpost bases at the locations shown on the plans. The center of the finished installation shall be 5'0" (2'6" for Advanced Street Name Sign Special installations) from the face of the adjacent curb or from

the edge of paved shoulder. Upon request and reasonable notice from the contractor, the engineer will establish and stake the location for the sign post bases. The City of Madison Traffic Engineering Division Staff will verify all signpost base locations.

Box out all installations in hard surfaced areas (concrete) with a round PVC pipe with a minimum diameter of 3-inches or installed by drilling or coredrilling a 3-inch hole all the way through the concrete to the base material. If drilling in architectural concrete pavement, cover the surface prior to drilling to protect the surface from drilling slurry. Coordinate all box out locations. With a temporary pipe 4 to 5 feet long, hand-tighten it into the insert. Drive the insert into the base material at a level/plumb position until the insert is flush with the top of the concrete. Shim insert to a level/plumb position with lag bolts or p.k. nails. All shims must be set below the concrete/insert. Remove temporary pipe, replace with permanent pipe, and tighten into insert with large pipe wrench until insert turns. Reset shims or add shims until pipe no longer turns. Retighten pipe and recheck level/plumb/top of concrete with insert. Patch concrete with a waterproof anchoring cement for concrete. Mix patch to a liquid consistency, not a paste. Pour patch until it is flush with the top of the insert. Recheck level/plumb/top of concrete with insert immediately due to fast setting time of cement. Additional cement may be required as it settles. Completed installation shall be level/plumb, solid, and able to support required sign post and signs. Patch shall be flush with adjacent concrete without exposed shims.

Coat the threads of the pipe and coupling in the base with graphite grease prior to assembly. Install the base such that the installed sign post will be plumb. Provide a one- year warranty that the signpost base installation shall remain plumb.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and satisfactorily repair and restore other work damaged by operations.

D Measurement

The department will measure Sign Post Base for Concrete Installation by each individual unit, installed and accepted in place.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.011	Sign Post Base for Concrete	EACH

Payment is full compensation for furnishing all materials; for the manufacture of the sign post base; for hauling, handling and installing the sign post base, including drilling holes in concrete; and for anchoring cement.

69. Special Sign Base, Item SPV.0060.012.

A Description

This special provision describes providing a concrete base as the plans show.

B Materials

Furnish pertinent materials in accordance with section 654.2 of the standard specifications.

C Construction

Construct the base in accordance with section 654.3 of the standard specifications.

D Measurement

The department will measure Planet Sign Base by each individual concrete base 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.0060.012	Special Sign Base	EACH

Payment is full compensation for providing concrete base; for anchor templates, rods, nuts, and washers; and for excavating and backfilling.

**70. Inlet Cover Type H Special, Item SPV.0060.013;
Inlet Cover Type H-S Special, Item SPV.0060.014.**

A Description

This special provision describes installing inlet covers in accordance with the pertinent requirements of section 611 of the standard specifications and the construction details shown in the plans.

B Materials

The inlet covers shall be in accordance with the pertinent materials of section 611 of the standard specifications.

C Construction

Perform work in accordance with section 611 of the standard specifications.

D Measurement

The department will measure Inlet Cover Type (type) 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.0060.013	Inlet Cover Type H Special	EACH
SPV.0060.014	Inlet Cover Type H-S Special	EACH

Payment shall be in accordance with section 611.5.4 of the standard specifications, including the removal of the cover.

71. Manhole Cover Type J Special, Item SPV.0060.015.

A Description

This special provision describes installing manhole castings in accordance with the pertinent requirements of section 611 of the standard specifications and the construction details shown in the plans.

B Materials

Provide castings according to standard spec 611 and Article 507 of the City Standard Specifications and as shown on the plans. Provide lids with logo per City Standard Specifications Standard Detail Drawing 5.7.16.

C Construction

Perform work in accordance with section 611 of the standard specifications.

D Measurement

The department will measure Manhole Cover Type J Special 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.0060.015	Manhole Cover Type J Special	EACH

Payment shall be in accordance with section 611.5.4 of the standard specifications, including the removal of the cover.

72. **Construction Staking Project 5992-11-21, Item SPV.0060.016;
Construction Staking Project 5992-11-22, Item SPV.0060.017,
Construction Staking Project 5992-11-23, Item SPV.0060.018;
Construction Staking Project 5992-11-24, Item SPV.0060.019;
Construction Staking Project 5992-11-25, Item SPV.0060.020;
Construction Staking Project 5992-11-26, Item SPV.0060.021;
Construction Staking Project 5992-11-27, Item SPV.0060.022;
Construction Staking Project 5992-11-28, Item SPV.0060.023.**

A Description

This special provision describes providing all construction staking in accordance with section 650 of the standard specification. Standard spec 105.6 and 650 of the standard specifications are supplemented as noted below to define the requirements for construction staking for this contract.

Supplement standard spec 105.6.2 of the standard specifications with the following:

The department will not perform any construction staking for this contract. The contractor shall perform all survey required to layout and construct the work under this contract, subject to engineer's approval. The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, sanitary sewer, watermain, subgrade, base, curb, gutter, curb and gutter, pipe culverts, structure layout, pavement (temporary and permanent), barriers (temporary and permanent), sawcut locations, pavement markings (temporary and permanent), electrical installations, supplemental control, slope stakes, curb ramps, ponds, parking lots, utilities, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

Delete standard spec 650.1 of the standard specifications.

B (Vacant)

C Construction

Survey required under this item shall be according to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and construct all work under this contract. Verify existing field conditions and adjust stakes to ensure compatibility with existing field conditions. Notify the engineer immediately if discrepancies between the proposed grades and existing field conditions are discovered.

D Measurement

The department will measure Construction Staking (project) as each project 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.0060.016	Construction Staking Project 5992-11-21	EACH
SPV.0060.017	Construction Staking Project 5992-11-22	EACH
SPV.0060.018	Construction Staking Project 5992-11-23	EACH
SPV.0060.019	Construction Staking Project 5992-11-24	EACH
SPV.0060.020	Construction Staking Project 5992-11-25	EACH
SPV.0060.021	Construction Staking Project 5992-11-26	EACH
SPV.0060.022	Construction Staking Project 5992-11-27	EACH
SPV.0060.023	Construction Staking Project 5992-11-28	EACH

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

73. **Utility Line Opening (ULO), Item SPV.0060.024.**

A Description

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

B (Vacant)

C Construction

Perform the excavation 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. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening is called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Utility line openings within RR ROW shall be by vacuum excavation only. Contractor to coordinate required ULO work with WisDOT and the Wisconsin and Southern Railroad Company. Contractor to obtain a Temporary Authorization Permit (TAP) to perform ULO work.

Approve and coordinate all utility line openings with the engineer. Notify the utility engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed.

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.0060.024	Utility Line Opening	EACH

Payment is full compensation for the excavation required to expose the utility line; backfilling with existing material removed from the excavation; compacting the backfill material; restoring the site; and for cleanup.

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

74. Remove and Reinstall Historical Monument, Item SPV.0060.025.

A Description

This special provision describes removing and reinstalling existing historical monuments at locations shown in the plans. The existing historical monuments conflict with the proposed grading.

B Materials (Vacant)

C Construction

Provide the engineer with written notification 3 days prior to removing the existing historical monument and provide the engineer pictorial documentation of the existing condition of the historical monument. Remove the existing historical monument in a manner that does not alter the existing condition of the historical monument. Store the historical monument in a safe temporary location where the existing condition of the historical monument will be maintained.

Notify the engineer 7 days prior to reinstalling the historical monument. Reinstall the historical monument on a base as the plans show. The historical monument shall be reinstalled between Station 117+00 and Station 123+00, Right.. Exact placement of the historical monument shall be located by the engineer.

D Measurement

The department will measure Remove and Reinstall Historical Monument as each individual unit acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.025	Remove and Reinstall Historical Monument	EACH

Payment is full compensation for documenting the existing condition, excavation and removal, storage, and reinstallation. The department will pay separately for the removal of the existing concrete base and installation of the new concrete base.

75. Access Gate 3-Foot Polymer-Coated, Item SPV.0060.026.

A Description

This special provision describes furnishing and erecting polymer-coated access gates per the plan detail at locations shown on the plans or as directed by the engineer, and as hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials

Furnish all fence and gate materials in accordance with standard spec section 616 and in accordance with the details shown in the plan. Gates and fence materials shall be chain link and in accordance with standard specs 616.2.1 and 616.2.3 and polymer-coated. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

Overall dimensions shall be a minimum of 72-inches tall and a minimum of 30-inches wide. Dimensions between overall vertical height and overall horizontal width can vary slightly from the plan detail if approved by the engineer.

Latch Chains shall be ASTM A413/A413M, Grade 30. The chain shall be galvanized, 2'-0" in length, and have size requirements consistent with 3/8" regular link. All latch chains used on keeper posts shall have an attached 'S' link attached to the end of the chain as shown in the plans.

Keeper posts shall be furnished in accordance with standard spec section 634.

Provide polymer-coating over zinc-coating on all components that conforms to ASTM F626 and F1043. The color (Black) of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction

Construct the gate as shown in the plan and in accordance with standard specs 616.3.1 and 616.3.3.

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, Contractor shall repair or replace components as necessary to the approval of the Engineer at no additional cost to the Owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the Owner. The Contractor shall provide the Engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

Install the gate in accordance with ASTM F567 and the manufacturer's instructions. The Contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement

The department will measure Access Gate 3-Foot Polymer Coated as each individual unit acceptably installed and completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.026	Access Gate 3-Foot Polymer Coated	EACH

Payment is full compensation for furnishing and installing all materials including polymer-coating, excavation and removing all excess excavation; for setting posts including placing concrete; for erecting and tensioning all fencing components; for providing the gate; for completing any touch-up and repairs; for signs; for keeper posts; for latch chains and 'S' hooks; and for all bolts, hardware, and other connection pieces found in the plan.

76. Catch Basins 6-FT X 6-FT, Item SPV.0060.027; Catch Basins 6-FT X 10-FT, Item SPV.0060.028.

A Description

This special provision describes constructing catch basins in accordance with section 611 of the standard specifications and as shown in the plans.

B Materials

Furnish materials in accordance with section 611.2 of the standard specifications.

C Construction

Construct catch basins in accordance with section 611.3 of the standard specifications.

D Measurement

The department will measure Catch Basins (Size) by 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.0060.027	Catch Basins 6-FT X 6-FT	EACH
SPV.0060.028	Catch Basins 6-FT X 10-FT	EACH

Payment is full compensation in accordance with section 611.5 of the standard specifications.

77. Manholes 6-FT X 10-FT, Item SPV.0060.0029.

A Description

This special provision describes constructing catch basins in accordance with section 611 of the standard specifications and as shown in the plans.

B Materials

Furnish materials in accordance with section 611.2 of the standard specifications

C Construction

Construct manholes in accordance with section 611.3 of the standard specifications

D Measurement

The department will measure Manholes 6-FT X 10-FT 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.0060.0029	Manholes 6-FT X 10-FT	EACH

Payment is full compensation in accordance with Section 611.5 of the standard specifications.

78. Adjust Sanitary Sewer Access Structure, Item SPV.0060.030.

A Description

This special provision describes adjusting Sanitary Sewer Access Structure (SAS) castings as called for on the plan set to the final proposed grades. This bid item is required because the casting adjustment is greater than 9 inches of vertical adjustment to set the casting to the final grade or the chimney was determined to be in poor condition. Manhole adjustments less than 9 inches will be paid for separately under Bid Item Adjusting Manhole Covers. Installation of offset cone and casting as called for on the plan will be considered incidental to this bid item. Rotation of an existing cone sections will be considered incidental to this bid item.

B Materials

Furnish precast concrete barrel sections and manhole adjustment rings meeting the requirements of Article 507.3, as well as SDD 5.7.2 and 5.7.15 of the City of Madison Standard Specifications.

C Construction

Adjust Sanitary Sewer Access Structure according to Article 507.3 of the City of Madison Standard Specifications. This bid item will require adjustment rings to be removed and concrete barrel sections to be installed. The maximum adjustment allowed on the Sewer Access Structure will not exceed 9 inches and the final configuration of the structure will be in accordance of SDD 5.7.2 and 5.7.15 of the City of Madison Standard Specifications. If the sewer access structure being adjusted is a poured in place structure (4 x 4, 5 x 5, or 6 x 6), install a 4-foot diameter barrel section on the poured in place manhole rooftop and place a concrete collar where the barrel section connects to the manhole rooftop. Center the barrel section over the casting opening. If the existing casting is offset, sawcut the manhole rooftop to create an opening centering the barrel section on the manhole rooftop.

D Measurement

The department will measure Adjust Sanitary Sewer Access Structure 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.0060.030	Adjust Sanitary Sewer Access Structure	EACH

Payment is full compensation for adjusting sanitary sewer access structure, saw cutting the roof, and installing mastic and concrete collars.

79. Permanent Navigational Buoys, Item SPV.0060.031.

A Description

This special provision describes furnishing and placing waterway buoys, anchorages, flashing lights, and all other materials associated with this item, according to the plans and to the pertinent requirements of the Wisconsin Department of Natural Resources (WDNR). These requirements may be obtained on the internet at the following address:

<https://dnr.wisconsin.gov/Topic/Boat/ordinances>

B Materials

Furnish buoys that are cylindrical in shape with a 7-inch minimum diameter and that extend a minimum of 36 inches above the waterline. Provide buoys of colors, markings and messages as shown in the plan and as specified in the Waterway Marker Permit. Buoys shall include galvanized hardware, solid green, solid red, or hazard marking (as indicated on plans) with 3" reflective band.

All buoys shall consist of an acrylonitrile butadiene styrene (ABS) exterior and completely filled with urethane foam.

Anchorages shall consist of anchors with a minimum weight of 90 pounds with a galvanized steel wire rope coated and impregnated with low density polyethylene plastic cable and hot dipped galvanized hardware. Anchorages and cable shall be supplied by the same manufacturer as the buoy.

C Construction

Place buoys with anchorages as shown on the plan and as approved by the engineer. Place waterway buoys in the water following removal of Temporary Waterway Buoys.

D Measurement

The department will measure Permanent Navigational Buoys 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.0060.031	Permanent Navigational Buoys	EACH

Payment is full compensation for furnishing, constructing, and placing buoys with anchorages.

80. Furnish & Install Water Valve 12-Inch, Item SPV.0060.032.

A Description

This work consists of furnishing and installing all water valves as identified on the plan and as required to complete the installation of the proposed water main according to section 704.6 of the City Standard

Specifications and as hereinafter provided. Proposed valves associated with pressure taps, are not included in these items.

B Materials

Furnish materials according to sections 702 and 704.6.2 of the City Standard Specifications.

C Construction

Install valves according to sections 703 and 704.6.3 of the City Standard Specifications. These items include furnishing all materials and fittings; bedding the valves; excavating, dewatering and compacting the trenches; installing valves, valve boxes and any necessary extensions; adjustments of valve boxes; installing and removing sheeting and bracing; restraint, polyethylene encasement, thrust restraint and any other appurtenances required to furnish and install valves as required. Furnish and install valve box extensions where needed. All valve box extensions are incidental to the installation of the valve.

D Measurement

The department will measure Furnish & Install 12-Inch Water Valve as each individual water valve, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.032	Furnish & install 12-Inch Water Valve	EACH

Payment is full compensation for furnishing all materials; for disposal of surplus materials; excavation and compaction of select fill material; restoring the site.

81. Fishing Dock Abutment, Item SPV.0060.033.

A Description

This special provision describes salvaging existing hardware and constructing a steel reinforced concrete fishing dock abutment as the plans show.

B Materials

B.1 Concrete

Furnish concrete in accordance with section 501.2 of the standard specifications.

B.2 Steel Reinforcement

Follow the requirements of section 505.2 of the standard specifications and furnish bar steel reinforcement in accordance with section 505.2.2 of the standard specifications.

B.3 Clear Stone

Furnish aggregate for the foundation as shown in the plans in accordance with section 310 of the standard specifications.

C Construction

Before removing the existing fishing dock, salvage the existing angle irons, existing anchor plates, and anchorages from the existing fishing dock in accordance with section 204.3 of the standard specifications.

Excavate and prepare the foundation of the fishing dock abutment in accordance with the lines, dimensions, elevations, and details shown in the plans and in accordance with section 206 of the standard specifications.

Place and construct the base aggregate in accordance with section 301.3 of the standard specifications.

Construct the steel reinforced fishing dock abutment in accordance with the lines, dimensions, elevations, and details shown in the plans.

After 7 days of concrete curing, backfill the fishing dock abutment in accordance with section 206.3.13 of the standard specifications.

After a minimum 10 days of concrete curing, reinstall the salvaged angle irons, anchor plates, and anchorages (with adhesive) as shown in the plans.

D Measurement

The department will measure Fishing Dock Abutment by each 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.0060.033	Fishing Dock Abutment	EACH

Payment is full compensation for salvaging and reinstalling the existing angle irons, anchor plates, and anchorages along with furnishing all materials to construct the fishing dock abutment. Payment also includes excavation, preparing the foundation, base aggregate, and backfilling.

82. Underdrain Cleanout 8-Inch, Item SPV.0060.034.

A Description

This special provision describes providing all materials and construction of PVC cleanouts located in the biofilter basins.

B Materials

Furnish PVC pipe conforming to the requirements of the specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, ASTM D 3034 for SDR-35. Fittings supplied by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the engineer.

C Construction

The work shall include but is not limited to furnishing and installing all pipes, wyes, screw caps, and fittings necessary to construct the cleanout as indicated on the plans. Securely connect sections of PVC pipe with elastomeric or solvent cemented joints.

D Measurement

The department will measure Underdrain Cleanout 8-Inch by each 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.0060.035	Underdrain Cleanout 8-Inch	EACH

Payment is full compensation for installing the cleanout including all necessary pipes, wyes, fittings, and screw caps.

83. Standpipe 12-Inch With Grate, Item SPV.0060.035.

A Description

This special provision describes providing all materials and construction of PVC standpipes with grates located in the biofilter basins.

B Materials

Furnish PVC pipe and fittings as shown in the plans conforming to the requirements of the specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, ASTM D 3034 for SDR-35. Fittings supplied by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the engineer.

Furnish a ductile iron drop in grate designed to fit the standpipe as shown in the plans. The grate shall conform to ASTM A536 Grade 70-50-05 with a natural patina or black paint finish. The size of the grate openings shall meet requirements of American Disability Act (ADA).

C Construction

The work shall include but is not limited to furnishing and installing all pipes, reducers, tees, grates and fittings necessary to construct the standpipe as indicated on the plans. Securely connect sections of PVC pipe with elastomeric or solvent cemented joints.

D Measurement

The department will measure Standpipe 12-Inch With Grate 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.0060.035	Standpipe 12-Inch With Grate	EACH

Payment is full compensation for installing the standpipe including all necessary pipes, reducers, tees, grates and fittings.

84. Concrete Supports, Item SPV.0060.036.

A Description

This special provision describes providing concrete supports of storm sewer crossings over utility lines.

B Materials

Furnish materials in accordance with section 504 of the standard specifications. Steel reinforcement is not required.

C Construction

Construct concrete supports in accordance with section 504.3 of the standard specifications to the dimensions and locations shown on the plans.

D Measurement

The department will measure Concrete Supports by each 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.0060.036	Concrete Supports	EACH

Payment is full compensation for excavation, constructing, and placing the concrete support.

85. Install Cast in Place Strut Channel SPV.0060.201.

A Description

This special provision describes furnishing and installing cast in place strut channel.

B Material

Furnish cast in place strut channel made from 12-gauge low-carbon steel (ASTM A1011, 33 ksi yield), hot-dipped galvanized, with a minimum U-shaped cross-section (1-5/8" x 13/16") and slotted configuration for mounting components in concrete structures. The channel shall have a zinc coating per ASTM A123 for corrosion resistance, suitable for indoor use, and meet load requirements per AISI standards. Strut channel, closer and end caps are required and must be from the same manufacturer. Submit product data, load tables, and shop drawings for project approval.

C Construction

Install the cast in place strut channel as shown on drawings for conduit installation. Cast in place strut channel shall be installed between 24-inches and 36-inches from the face of the abutment walls and installed every 8-ft thereafter. Cast in place strut channel shall be nailed to the decking forms prior to concrete installations.

D Measurement

The department will measure Install Cast in Place Strut Channel 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.0060.201	Cast in Place Strut Channel	Each

Payment is full compensation for furnishing and installing the channel.

86. Electrical Pull Box Type I, Item SPV.0060.301; Electrical Pull Box Type III, Item SPV.0060.302 Electrical Pull Box Type V, Item SPV.0060.303; Electrical Pull Box Type VII, Item SPV.0060.304.

A Description

Furnish and install electrical pull boxes in accordance to section 653 of the standard specifications, the plan details, and as hereinafter provided.

B Materials

Electrical Pullbox, Type I shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type I shall be 17" wide X 30" long X 24" deep. The Type I box and polymer cover shall be rated to withstand 20,000 lbs.

Electrical Pullbox, Type III shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type III shall be 12" wide X 12" long X 12" deep. The Type III box and polymer cover shall be rated to withstand 20,000 lbs.

Electrical Pullbox, Type V shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type V shall be 24" wide X 36" long X 24" deep. The Type V box and polymer cover shall be rated to withstand 20,000 lbs.

Electrical Pullbox, Type VII shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type VII shall be 30" wide X 50" long X 36" deep. The Type VII box and polymer cover shall be rated to withstand 20,000 lbs.

Each cover shall have the logo "CITY ELECTRICAL" imprinted from the manufacturer.

C Construction

Install Electrical Pull Box (Type) in accordance to the pertinent provisions of section 653.3 of the standard specifications and the plan details.

D Measurement

The department will measure Electrical Pull Box (Type), completed in accordance to the contract and accepted, as a unit for each Pull Box.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.301	Electrical Pull Box Type I	EACH
SPV.0060.302	Electrical Pull Box Type III	EACH
SPV.0060.303	Electrical Pull Box Type V	EACH
SPV.0060.304	Electrical Pull Box Type VII	EACH

Payment is full compensation for furnishing and installing all materials, including crushed aggregate; for excavation, backfill, and disposal of surplus materials.

- 87. Concrete Bases Type GR, Item SPV.0060.305;
Concrete Bases Type LB-2, Item SPV.0060.306;
Concrete Bases Type LB-3R, Item SPV.0060.307;
Concrete Bases Type LB-8R, Item SPV.0060.308;
Concrete Bases Type P, Item SPV.0060.309;
Concrete Bases Type Offset, Item SPV.0060.310.**

A Description

Construct concrete foundations, including furnishing and installing necessary hardware, as shown on the plans, in accordance to the pertinent provisions of section 654 of the standard specifications, and as hereinafter provided.

B Materials

Furnish Grade A, A-WR, A-FA, or A-IP concrete masonry conforming to the requirements of section 501 of the standard specifications. Conduit cast within the bases shall be Schedule 40 PVC electrical conduit and shall conform to the requirements of section 652 of the standard specifications.

Furnish anchor bolts for Type GR bases made from high-strength steel (50 ksi minimum yield strength), ASTM A36, and fit each with two hard washers and two heavy hex nuts. Each bolt shall have approximately 3 inches or more of thread at the top end. The bolts, washers and nuts shall be galvanized

Furnish anchor bolts for LB-2, LB-3R, LB-8R and Offset bases made from high-strength steel (50 ksi minimum yield strength), ASTM A36, and fit each with two hard washers and two heavy hex nuts. Each bolt shall have approximately 6 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized.

Furnish ¾-Inch x 19-Inch bolts for the LB-2 bases. Furnish 1 ¼-inch x 48-inch bolts for the LB-8R bases, including a 4-inch L-bend at the bottom. Furnish 1-inch x 40-inch bolts for the LB-3R bases, including a 4-Inch L-bend at the bottom. Furnish ¾ inch x 19-inch bolts for the Type G bases.

Include a concrete maintenance platform on the Type P bases. Generally, construct the Type P bases in accordance to the standard detail drawing Concrete Control Cabinet Bases. Confirm the location of the conduits in the base with the City of Madison. Anchor bolts, nuts, and washers for Concrete Controller Base, Type P, will be provided by the City of Madison TE Shop and installed by the Contractor when installing signal control cabinets. Conform bar steel reinforcement to the requirements of standard spec 505.

C Construction

Place the bases with one side parallel to the centerline of the street.

Forms shall be of sufficient depth to provide a minimum of 12-inches of formed base below the finished grade on the low side of the base. The top surface of the base shall be level with a $\frac{3}{4}$ -inch bevel on the edges and shall be given a rubbed finish.

Cast anchor bolts into the base as shown on the plans. Verify the bolt circle diameters before constructing the bases.

Furnish and install manufactured elbows in all bases, except as noted on the details. Install elbows to permit installation of conduit in as nearly straight-line runs as possible without unnecessary bends. Bases not installed to this standard will not be accepted.

Extend existing conduits into the bases. Elbows shall conform to the requirements of the type of conduit entering the base. Install an extra elbow in each base at the end of a run as directed by the engineer. Install extra elbows in any base as directed by the engineer.

Do not erect poles on the concrete bases until the bases have cured for at least seven (7) days. All concrete bases require a rubbed finish down to finished grade.

D Measurement

The department will measure Concrete Base (Type) by the unit, completed in accordance to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.305	Concrete Bases Type GR	EACH
SPV.0060.306	Concrete Bases Type LB-2	EACH
SPV.0060.307	Concrete Bases Type LB-3R	EACH
SPV.0060.308	Concrete Bases Type LB-8R	EACH
SPV.0060.309	Concrete Bases Type P	EACH
SPV.0060.310	Concrete Bases Type Offset	EACH

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire; bar steel reinforcement, and concrete masonry; for providing openings through existing pavement where required; for excavation, including hand-digging as required, backfill, and disposal of surplus materials.

88. Transformer Base 16-Inch Steel, Item SPV.0060.311.

A Description

This special provision describes furnishing and installing steel transformer bases as shown on the plans and as follows.

B Materials

Provide hot-dipped galvanized steel transformer bases according to ASTM designation A123. Provide bases with slotted bolt openings. Furnish steel connecting bolts, size 1.00 inches by 4 inches, hold down lugs for 1.00 or 1.25 inch bolts and nuts and washers. Verify the bolt diameter projection and bolt circle dimension required for each application. Ensure the concrete bases and pole bases are compatible with the transformer bases and bolts. Hot-dip galvanize all material and verify they are of sufficient size and strength to exceed the capacity of the bases. Construct 16-Inch bases to conform to the detail in the plan.

Furnish to the engineer at the time of delivery of the bases, a manufacturer's certificate of compliance that the base and hardware as furnished meets the above requirements.

C Construction

Install transformer bases according to the manufacturer's instructions, and as shown on the plans.

D Measurement

The department will measure Transformer Base 16-Inch Steel as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.311	Transformer Base 16-Inch Steel	EACH

Payment is full compensation for furnishing and installing transformer bases, streetlight pole wire, mechanical grounding connector and related hardware; for leveling shims when required.

89. Pole 30-Foot, 11 Gauge Staggered Twin Mount, Item SPV.0060.312.

A Description

This special provision describes Poles Aluminum 30-Foot for locations with a combined roadway and pathway luminaire in accordance to the plans and as hereinafter provided. It is the intent to describe in these specifications minimum functional and design requirements for aluminum light poles for the City of Madison, Wisconsin.

B Materials

Furnish poles that conform to the electrical detail drawing in the plans; the manufacturer's approved shop drawing; and these specifications. Submit exceptions to these specifications and city drawings to the engineer for review prior to manufacturing.

Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles to ensure mounting and wire raceway holes are compatible with the selected LED luminaires. Drill pattern for pathway luminaire shall be provided 180 degrees from the roadway luminaire at an approximate mounting height of 20 feet.

Furnish poles that have round aluminum shafts with a base welded to the lower end of each.

Certify that all poles have been designed to withstand a 90-mile-per-hour sustained wind velocity and a 117-mile-per-hour gust velocity, with one light fixture attached.

B.1 Shaft

Provide round poles, with a base plate welded to the bottom end of the pole. All 30 foot poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper.

Provide a grounding nut or nut holder for accommodating a 1/2 inch 13 UNC threaded bolt or stud on the inside of the shaft immediately opposite the center of the handhole.

Provide poles that after fabrication and assembly, will have no sharp edges, corners or points on both the interior and exterior surfaces, except at the base plate.

Restore to the design alloy by heat treating after fabrication.

B.2 Pole Coatings

Confer with Gretchen Avilés Piñeiro of City Traffic Engineering, (608) 266-4899, as to the specifications for a black anodized finish in order to assure the city that the city's desires are being fulfilled. Spin the poles using a fine (120) grit. Provide a uniform finish appearance free from any streaking during the pole extrusion, spinning and anodizing.

Use a two-step matte black anodizing finish (AA-C22-A44-Black) or an alternate process which produces a dark black finish. A light black finish is not acceptable.

B.3 City Approval of Shop Drawings

Submit shop drawings to the City of Madison Traffic Engineering Division, 215 Martin Luther King Jr. Blvd., Suite 109, Madison, WI 53703, Attn: David Hansen. Manufacture no poles until the City has approved the shop drawings. City review and approval of shop drawings will be done within three work days of their receipt unless revisions to shop drawings are necessary as determined by the city.

C Construction

Construct according to standard spec 657.

D Measurement

The department will measure Pole 30-Foot, 11 Gauge Staggered Twin Mount 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:

SPV.0060.312	Pole 30-Foot, 11 Gauge Staggered Twin Mount	EACH
--------------	---	------

Payment is full compensation for furnishing and installing poles, all hardware and fittings necessary to completely install the pole; for corrosion prevention where required; for installing identification required plaques.

90. **Pole 20-Foot, 7 Gauge, Item SPV.0060.313;
Pole 30-Foot, 7 Gauge Twin Mount, Item SPV.0060.314;
Pole 30-Foot, 11 Gauge Single Mount, Item SPV.0060.315;
Pole 30-Foot, 11 Gauge Twin Mount, Item SPV.0060.316.**

A Description

This special provision describes furnishing and installing poles and arms according to standard spec 657, the details shown on the plans, and these special provisions.

B Materials

Provide round poles, with a base plate welded to the bottom end of the pole. All 30 foot poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper.

Provide base plates that have a slotted opening for anchor bolts compatible with the bolt circle dimensions as required by each respective transformer or pedestal base.

Certify that all 30-foot poles have been designated to withstand a 90 mile per hour sustained wind velocity and 117 mile per hour gust velocity with the bracket arm and luminaires in place.

Use 20-Foot 7 gauge poles for supporting aluminum trombone arms holding signs and/or signal heads.

Provide a 4" x 6 1/2" galvanized handhole with contoured or flat cover plate joined to the reinforced handhole frame with two bolts. Locate the handhole at 90 degrees clockwise from the bracket arm side of poles as viewed when looking down from the top of the pole. The center of the handhole should be 14 inches from the bottom of the pole. Provide a solid metal bracket, with a drilled and tapped hole for securing cover plate bolts. Clips for holding these bolts are not acceptable. The machine bolts shall be a slotted hex-head style.

Fabricate the pole shaft from the herein specified manufacturer's best grade, hot rolled basic option hearth, or basic oxygen process steel. Provide a shaft with only one longitudinal, electrically welded joint, with the strength rated at not less than 100 percent of the yield strength of the steel and shall have no intermediate horizontal joints or welds. Only one length of steel shall be used, and form it into a continuously tapered shaft, having a taper of approximately 0.14 inches per foot. Provide smooth welds allowing the specified taper to be constant. Provide a pole that is within 1/4" in 10 feet of being straight and centered on its longitudinal axis.

Provide a grounding nut or nut holder for accommodating a 1/2 inch x 13 UNC threaded bolt or stud on the inside of the shaft immediately opposite the center of the handhole. Make the nut completely free of any metal residue that would prevent a bolt from easily screwing entirely into the nut.

Provide all poles holding LED fixtures with mounting and wire raceway holes placed before being hot-dipped galvanized. Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles.

Furnish and install a pole-top cover and four nut covers for each pole. Adjust the size of the pole top cover to account for poles cut to shorter lengths.

Provide each steel pole with a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. State the overall pole height, shaft gauge, and year of manufacture on the

label. Provide a label that will conform to the curvature of the pole and not have any sharp edges or corners. Install rivets so they are smooth inside and outside of the pole.

Thoroughly clean the exterior surface of the pole, arm, and hardware to make them free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances after all welding has been completed. Hot-dip galvanized the poles and arms according to the requirements of ASTM Designation A123. Hot-dip galvanize the hardware according to ASTM designation A153. Provide a bright, shiny, and uniform galvanized finish. Matted or dull pole sections will not be accepted.

Furnish non-shrink commercial grout from approval products list.

C Construction

Set and plumb metal poles with the use of leveling nuts furnished with the anchor bolts. Level luminaires after erecting and leveling the metal standards with bracket arms. The proper leveling method may be obtained from the manufacturer's instruction manual. Torque nuts on anchor and transformer bolts to 175-200 foot pounds or as directed by the engineer. Provide rust, corrosion, and snit-seize protection at all threaded assemblies by coating and mating surfaces with Markal (hightemp – E-Z Break), Never-Seez (Marine Grade), LPS 100, Lubriplate, or approved equal.

Attach the stranded copper ground wire that is installed as a part of the base construction with an approved connector (Fargo GC 202 or approved equal) to a ground nut locate inside the pole opposite the handhole.

When transformer bases are not installed, trowel grout between the pole and concrete base and finished at an angle from the edge of the pole base to the outer edge of the foundation. Leave a ½ inch slot for drainage through the grouting on the street side at the top of the concrete base.

Cut the poles to modified lengths at the plan locations to meet OSHA clearance requirements at overhead transmission lines.

D Measurement

The department will measure Pole (description) as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.313	Pole 20-Foot, 7 Gauge	EACH
SPV.0060.314	Pole 30-Foot, 7 Gauge Twin Mount	EACH
SPV.0060.315	Pole 30-Foot, 11 Gauge Single Mount	EACH
SPV.0060.316	Pole 30-Foot, 11 Gauge Twin Mount	EACH

Payment is full compensation according to standard spec 657.5, and for cutting poles to lengths less than 30 feet.

91. USSL Luminaire and Mounting Bracket Type 1, Item SPV.0060.317; USSL Luminaire and Mounting Bracket Type 2, Item SPV.0060.318.

A Description

This item number includes furnishing and installing Cooper fixture luminaires and mounting bracket.

B Materials

B.1 Material Qualifications

Provide an integral LED lighting unit. All parts not specifically mentioned, which are necessary and are regularly furnished in order to provide a complete unit, shall be furnished by the successful bidder at the bid price and shall conform in quality of material and workmanship to that usually provided by the engineering practice indicated in this specification.

Furnish luminaires of the "cutoff" type conforming to all general aspects for luminaires as specified under standard spec 659 except as modified herein. All equipment to be furnished shall be new, unused, and the latest model being produced.

Mounting bracket (part number 5010B77H02) shall be furnished and installed with all luminaires.

1. USSL Luminaire Type 1 - Cooper Lighting LED luminaire (part number "USSL-PA2A-730-U-T3-SA-AP-PR7").

Intended for use with single arm lighting units and at intersections.

2. USSL Luminaire Type 2 - Cooper Lighting LED luminaire (part number "USSL-PA2A-730-U-T2R-SA-AP-PR")

Intended for use with twin arm lighting units along the median.

B.2 Manufacturer's Warranty

The manufacturer shall warrant that goods provided for this project will conform to applicable specifications, drawings, designs, samples, descriptions and will be free from defects in material and workmanship and will be fit for the particular purpose intended by the city.

This warranty shall remain in effect for one year. The warranty period commences on the date the luminaires are installed.

Under this warranty, the manufacturer agrees to replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the City of Madison.

New lighting units will not be accepted before luminaires and lamps have operated without failure for a period of at least ten consecutive nights.

C Construction

Install LED Luminaires and Mounting Bracket (Type) in accordance to the pertinent provisions of standard spec 659 and as the manufacturer directs.

D Measurement

The department will measure LED Luminaires and Mounting Bracket (Type) as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.317	USSL Luminaire and Mounting Bracket Type 1	EACH
SPV.0060.318	USSL Luminaire and Mounting Bracket Type 2	EACH

Payment is full compensation for furnishing all materials, including all luminaires and side of pole mounting hardware.

- 92. Traffic Signal Trombone Arm Aluminum 25-Foot, Item SPV.0060.320;
Traffic Signal Trombone Arm Aluminum 12-Foot, Item SPV.0060.321;
Traffic Signal Trombone Arm Aluminum 18-Foot, Item SPV.0060.322;
Traffic Signal Trombone Arm Aluminum 22-Foot, Item SPV.0060.323.**

A Description

This special provision describes furnishing and installing trombone mast arms and all necessary miscellaneous hardware needed to complete the installation of the trombone mast arm as shown on the plans, in the standard specifications, and as hereinafter provided.

B Materials

Furnish traffic signal trombone arms designed to withstand loadings resulting from a 12" 3-section aluminum signal with backplate and an 18" x 90" aluminum street name sign mounted on the arm as shown on the drawing. Design factors in accordance to the AASHTO Specifications for the Design and Construction of Structural Supports for Traffic Signals, Signs, and Highway Lighting, together with a wind pressure resulting from a wind velocity of 80 miles per hour plus gust factor, shall be applied to these arms, with the above signals attached.

Furnish certification of compliance with these stated AASHTO performance requirements with submission of the material list.

Submit shop drawings that include dimensions of width, depth, length and thickness of all members and ASTM designation and alloy designation of aluminum members.

Construct trombone arms of aluminum consisting of round or oval upper and lower members joined by one or more tubular vertical struts welded to them. Construct the pole end of the mast arm with a mounting clamp welded to it which will permit the attachment of the mast arm to a round pole of varying diameter. Construct the lower clamp to be 5-7/8" I.D. and the upper clamp to be 5-1/2" I.D. Design the clamps to accommodate some variation in pole diameter while still attaining full contact between the clamp and the pole. The surface area of the clamp contacting the pole shall be sufficiently large and designed to prevent horizontal rotation in windy conditions. Provide bolts connecting the arm bracket to the back bracket from galvanized steel; stainless steel bolts are not acceptable. Design the vertical strut, which has provision for mounting the signal head, to provide for horizontal adjustability along the main mast arm members so that signal heads of various lengths with backplates, up to and including 5-section 12" heads, can be accommodated within the confines of the mast arm. Design the cross tees for signal heads to have two slots on the threaded hubs that face each other.

Provide the wiring raceway entrance to be through the lower mounting bracket.

Provide the mast arm with a uniform natural aluminum finish and clean. No painting or other corrosion preventive maintenance will be required.

Construct the portion of the main members of the arm to which the arm attachment bands are welded as one piece of seamless tapered aluminum tubes.

Attach the main arm member to the pole using extruded aluminum clamps fastened with continuously threaded stainless steel bolts with nuts and washers meeting the requirements of ASTM Designation A-320. List the strength and/or grade specification ratings on the shop drawings. Provide stiffeners or gussets at the joints between the main arm tubes and arm clamps to provide adequate strength to resist side loads.

Provide shims made of an aluminum alloy.

Provide a permanent imprint of the "Type" and "Year of Manufacture" on the underside of the lower member of each arm.

C (Vacant)

D Measurement

The department will measure Traffic Signal Trombone Arm Aluminum 18-Foot 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.0060.320	Traffic Signal Trombone Arm Aluminum 25-Foot	EACH
SPV.0060.321	Traffic Signal Trombone Arm Aluminum 12-Foot	EACH
SPV.0060.322	Traffic Signal Trombone Arm Aluminum 18-Foot	EACH
SPV.0060.323	Traffic Signal Trombone Arm Aluminum 22-Foot	EACH

Payment is full compensation furnishing and installing all materials including all hardware, fittings, mounting clamps, shims and attachments necessary to completely install the mast arms.

- 93. Traffic Signal Heads 12-Inch, 3-Section, Item SPV.0060.324;
Traffic Signal Heads 12-Inch, 4-Section, Item SPV.0060.325;
Traffic Signal Heads 16-Inch Pedestrian with Countdown, Item SPV.0060.326.**

A Description

This special provision describes furnishing and installing vehicle and pedestrian signals with LED indications according to the standard specifications and these special provisions.

B Materials

Furnish circular and arrow LED modules from the department's approved product list and conforming to ITE VTCSH-LED.

Furnish state approved 16-Inch Pedestrian LED Full Hand/Full Man Overlay Module with Countdown conforming to ITE VTCSH-LED.

Provide all pedestrian signals with tunnel visors in place of z-grate specified by the department.

Provide all vehicle signals with cutaway visors.

Provide snow-shedding shield on each signal indication on all signals mounted on monotube arms or trombone arms. The shield shall be impact resistant polycarbonate, designed and installed specifically to reduce snow accumulation, while not allowing water to enter or reside in the signal unit. If there are not any far side signals on monotube arms or trombone arms, then install snow-shedding shields on each signal indication of the far right signal.

Pedestrian countdown timers shall have a control wire so that when 120V AC current is applied, the timer will immediately go dark. This control wire shall be wired back to the signal control cabinet.

Make all vehicle and pedestrian signal heads with polycarbonate material, UV stabilized, with color impregnated in the material. All features and performance shall meet the requirements outlined in the latest revision of the Institute of Transportation Engineers' publication, "Adjustable Face Vehicular Traffic Control Signal Heads" The front face and all visors (inside and outside) shall be flat or semi-gloss black. All other exterior parts shall be Federal Highway yellow. Use only exterior hardware made of stainless steel.

C Construction

Construct according to standard spec 658.

D Measurement

The department will measure Traffic Signal Heads 12-Inch (Description) 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.0060.324	Traffic Signal Heads 12-Inch, 3-Section	EACH
SPV.0060.325	Traffic Signal Heads 12-Inch, 4-Section	EACH
SPV.0060.326	Traffic Signal Heads 16-Inch, Pedestrian with Countdown	EACH

Payment is full compensation for furnishing and installing all materials.

94. Backplates Signal Face, 3-Section 12-Inch, Item SPV.0060.327; Backplates Signal Face, 4-Section 12-Inch, Item SPV.0060.328.

A Description

This special provision describes furnishing and installing backplates for signal faces.

B Materials

Furnish Backplates Signal Face (Size) that are according to the pertinent requirements of standard spec 658 and these special provisions.

Provide a 5" wide black band around the signal head backplates for 12" signal heads. Make the backplates with an approved black rigid material, such as vacuum formed ABS plastic. Match the backplates to the signal heads being furnished under this bid, equipped with all necessary holes, mounting devices. Use only stainless steel mounting hardware.

C Construction

Install the backplates according to standard spec 658.3, the manufacturer's instructions, and as shown on the plans.

D Measurement

The department will measure Backplates Signal Face (Description) 12-Inch 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.0060.327	Backplates Signal Face 3-Section 12-Inch	EACH
SPV.0060.328	Backplates Signal Face 4-Section 12-Inch	EACH

Payment is full compensation for furnishing and installing all materials.

95. Install City Furnished Traffic Signal Cabinet and Controller, Item SPV.0060.329.

A Description

This special provision describes the transporting and installing of City furnished traffic signal cabinet and traffic signal controller with auxiliary equipment as the plans show and as follows. Furnish and install at no extra cost any equipment and materials not specifically described but required in order to perform the intended functions in the cabinet.

B Materials

Use materials furnished by the City including: the traffic signal controller, traffic signal ethernet switch, Malfunction Management Unit (MMU), traffic signal cabinet, and other peripheral traffic signal cabinet equipment.

Obtain traffic signal cabinet, controller, and cabinet materials from the City of Madison at 1120 Sayle St, Madison, WI 53715. Contact Ed Smith of City of Madison at (608) 266-9034 to make arrangements for picking up the furnished materials, minimum of three working days prior to picking the materials up. Furnish any hardware not provided by the City of Madison.

Provide all other needed materials in conformance to 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2 of the standard specs.

C Construction

Perform work conforming to 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 of the standard specs except as specified below.

Request a signal inspection of the completed signal installation to the project engineer at least five (5) working days prior to the time of the requested inspection. The City of Madison personnel will perform the inspection.

Coordinate directly with Chad Veinot of the City of Madison at (608) 267-1960 to schedule the cabinet acceptance testing. The City has final determination of the cabinet acceptance testing date and time.

Installation of traffic signal cabinet shall occur between 9:00am and 3:00pm unless otherwise approved by the engineer.

D Measurement

The department will measure Install City Furnished Traffic Signal Cabinet and Controller as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.329	Install City Furnished Traffic Signal Cabinet and Controller	EACH

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, but not limited to, wire nuts, splice kits and/or connectors, tape, insulating varnish, and ground lug fasteners. To make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

96. Optical Signal Preempt, Item SPV.0060.330.

A Description

This special provision describes furnishing and installing optical signal preempt equipment for the signalized intersections of Noth Shore Drive and Broom Street. The acceptability of alternate equipment rests solely with the City of Madison Traffic Engineer.

B Materials

Provide GTT/Opticom optical preemption equipment. Provide the following items at locations and in quantities as shown by the plan:

1. [Opticom 762 (2-channel)/Opticom 764 (4-channel)] rack mounted discriminator.
2. [Opticom 711 (single direction/single channel)/ Opticom 721 (dual direction/single channel)/Opticom 722 (dual direction/dual channel)] optical detectors.
3. Card rack [TS1 cabinets only].
4. Detector cable as necessary.
5. Cables and auxiliary equipment as necessary for a complete operating system.

C Construction

Install detectors on the top horizontal member of monotube arms, between the first and second traffic signal head, and as otherwise shown on the plan or directed by Madison Traffic Engineering.

The detectors will generally be on the far side of the intersection, and aimed at approaching traffic, as further directed by Madison Traffic Engineering staff. Install detector cable from the detector to the control cabinet at each intersection, using the shortest path.

All installation methods to be consistent with the manufacturer's instructions. Card rack and discriminator installation, as well as cabinet connections, will be made by City of Madison Traffic Engineering staff.

D Measurement

The department will measure Optical Signal Preempt as a single unit of work for optical signal preempt, 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.0060.330	Optical Signal Preempt	EACH

Payment is full compensation for furnishing and installing detectors and cable; for furnishing and delivering discriminators, and card racks.

This special provision describes furnishing and installing optical signal preempt equipment at signalized intersections at the location and the quantity as shown on the plan.

97. Traffic Signal Ethernet Switch, Item SPV.0060.331.

A Description

This special provision describes furnishing and installing an ethernet switch in an existing traffic signal cabinet, as specified in standard specs 651, 655, 670, 674, and 675, as shown on the plans, and as provided hereinafter.

B Materials

Furnish Cisco IE-4000-8T4G-E Ethernet switches with IP services license as called for in the plans. Provide all necessary cables between the ethernet switch and device or devices also as called for in the plans.

C Construction

Install the traffic signal ethernet switch in an existing traffic signal cabinet. Connect it to devices as shown on the plans, according to the manufacturer's recommendation, and as directed by the engineer.

Label the switch with the proper authentication code for the IP services licensing. Label shall be white with black text and be legible.

Contact Chad Veinot at the City of Madison Traffic Engineering shop at (608) 267-1960 a minimum of 7 working days in advance to coordinate installing equipment in existing traffic signal cabinet.

D Measurement

The department will measure Traffic Signal Ethernet Switch as each individual traffic signal ethernet switch, 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.0060.331	Traffic Signal Ethernet Switch	EACH

Payment is full compensation for furnishing and installing an ethernet switch, all necessary incidental wiring and hardware, making all necessary connections.

98. No Right Turn Blank Out Sign, Item SPV.0060.332.

A Description

This special provision describes furnishing and installing No Right Turn blank out electrical signs in accordance with the plans and this special provision.

B Materials

Provide for each quantity one 24" by 24" blank out electrical sign capable of displaying MUTCD compliant R3-1 display. Housing shall be black, aluminum with housing and door thickness of 0.125 inches. Minimum of 30 degree viewing angel centered optical axis.

Provide stainless steel fasteners and hardware for each sign.

Power supply for sign shall be 120V – 60hz.

Sign shall be fully compatible with NEMA controllers/conflict monitors and capable of being completely blank when de-energized.

C Construction

Install signs on poles and/or signal arms per plans.

D Measurement

The department will measure No Right Turn Blank Out Signs by each individual unit, acceptably complete and installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.332	No Right Turn Blank Out Sign	EACH

Payment is full compensation for furnishing and installing all materials.

99. Lighting Control Cabinet, Item SPV.0060.333.

A Description

This special provision describes furnishing and installing a lighting control cabinet with all electrical components and wiring assembled.

B Materials

B.1 Contactors

Furnish 8-pole, 30-amp, 600-V electrically held contactors with 120-V control coil in NEMA 1 enclosure as required for the proposed circuits. Engrave "ALL NIGHT" or "MIDNIGHT" identification on cover of respective enclosures.

B.2 Photocell

Furnish a button type photocell and install as shown on the detail. Apply silicone caulk to maintain the watertight integrity of the enclosure. The photocell shall be rated for 120V, 1500W with 30-60 second delay between "on-off" operations.

B.3 Panel

Furnish a 120/240-volt, 100A main circuit breaker, single-phase, 20-circuit panel board in a NEMA 1 enclosure. Provide copper ground and split neutral bus bars in addition to copper bus bars. Provide bolt-on, thermal-magnetic circuit breakers that clearly indicate ON, OFF, or TRIPPED position in the panel. Provide double pole breakers as required for all multiwire branch circuits.

B.4 Time Clock

Furnish a Tork EWZ210C astronomical time clock with an 8-year lithium battery time backup, -40° F to 120° F operating range, 40-year program schedule retention, LCD type, daylight saving time, and leap year correction. Program as required by the City of Madison.

B.5 Selector Switches

Furnish "Hand-Off-Auto" switches to control each circuit separately. Provide a "Hand-Off-Auto" legend plate for each switch. Engrave "ALL NIGHT" and "MIDNIGHT" above each appropriate operator. Mount the switches in a horizontal manner in a NEMA 1 enclosure.

B.6 Cabinet Enclosure

Provide a NEMA 4X enclosure made from .125-inch Type 5052-H32 aluminum. The doorframe shall be double flanged and all exterior seams shall be ground smooth. Door handle shall be 3/4-inch diameter stainless steel with three point latching system and hasp. Main door shall be sealed with a closed-cell neoprene gasket. Main door hinge shall be continuous 0.075-inch thick stainless steel with a 0.25-inch stainless steel hinge pin. Provide an aluminum-mounting panel at back (interior) of enclosure. Provide a weatherproof pad lock with 2-3/8-inch wide body, repinnable/replacable cylinder, and five keys. There shall be no louvers or Corbin main door lock. Applicable code working clearances shall be maintained between equipment mounted within the enclosure.

B.7 Surge Arrester

Furnish a surge suppressor to protect the panel board. The surge suppressor shall provide 6 modes of surge protection, meet UL1449 Second Edition with 32Ka per phase and 48KA system peak surge current, contain LED line indicators, and approximate dimensions of 4.54-inch X 2.58-inch X 0.22-inch. Connect the surge suppressor to the branch circuit breaker as indicated on the plans.

B.8 Field Wiring Termination Blocks

All connections from the field wiring to equipment in the lighting control cabinet shall be made through termination blocks. Provide quantity of channel mount, NEMA type single terminal blocks as indicated on plans that are capable of holding #12 to #1/0 wire with solderless box lugs, for power, neutral and grounding connections. Mount the terminal blocks on a mounting channel of appropriate length with end anchors and an end barrier. Each terminal block shall have a label indicating the appropriate circuit number, neutral ('N') or ground ('G') wire connected to block; handwritten numbers and letters are not acceptable means of identification. Make connections from the underground field wiring to the equipment in the lighting control cabinet through distribution blocks.

B.9 Convenience GFI Receptacle and Cabinet Light Fixture

Furnish a 20 ampere, 120 commercial grade GFI duplex receptacle within a galvanized steel outlet box with cover. 150 watt, 250 volt commercial grade lamp holder with galvanized steel box and 60 watt incandescent bulb. Furnish switch to turn on cabinet light by opening the cabinet door.

B.10 Incidental Materials

Secure all wiring using screw attachment type straps; adhesive type shall not be allowed.

C Construction

Assemble the control cabinet as shown on the plans. Pretest the cabinet prior to shipment to the site. Mount all equipment to panel in enclosure. Train the cables in straight horizontal and vertical directions and be parallel next to and adjacent to other cables whenever possible. Mount the cabinet to the concrete base per the manufacturer's requirements. The work under this bid item includes connection and termination to the feeder system wiring.

D Measurement

The department will measure Lighting Control Cabinet as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.333	Lighting Control Cabinet	EACH

Payment is full compensation for furnishing and installing photo control, contactors, panel, distribution blocks, surge arrestor, enclosure, grounding, wiring and electrical components; and mounting to the concrete base.

100. Non-Intrusive Vehicle Detection System, Item SPV.0060.334.

A Description

This special provision describes furnishing and installing a system that detects vehicles on a roadway using only video images of vehicle traffic. This item includes all materials and labor necessary to install a completely functional vehicle detection system including but not limited to cameras, processors, video monitor, mounting hardware, power cable, and coaxial cable.

The video detection system shall be Iteris, Inc. Vantage Next detection system.

B Materials

B.1 System Hardware

The video detection system (VDS) shall consist of up to four video cameras, a video detection processor (VDP) capable of processing from one to four video sources, either wired or wireless, wireless video transmission receiver, receiver antenna and a pointing device.

B.2 System Software

The system shall include software that detects vehicles in multiple lanes using only the video image. Detection zones shall be defined using only an on-board video menu and a pointing device to place the zones on a video image. Up to 24 detection zones per camera view shall be available. A separate computer shall not be required to program the detection zones.

C Construction

C.1 System Configuration

The VDS will be deployed at locations where site conditions and roadway geometry vary. The VDS system may also be deployed at locations where existing cabinets or equipment exist. Existing site configurations will dictate the availability of cabinet space and VDS usage.

The proposed VDS shall be available in various configurations to allow maximum deployment flexibility. Each configuration shall have identical user interface for system setup and configuration. The communications protocol to each configuration shall be identical and shall be hardware platform independent. The proposed VDS shall have multiple configurations available for deployment.

Table 1. VDS Configuration

Description	No. Video Inputs	No. Video Outputs	Mounting Configuration	Power Supply Requirements
Single-Channel Rack Mounted	1	1	Rack Mount (Type 170 or NEMA TS1, TS-2 Racks)	12/24 VDC Power From Rack
Dual-Channel Rack Mounted	2	1	Rack Mount (Type 170 or NEMA TS1, TS-2 Racks)	12/24 VDC Power From Rack
Quad-Channel Rack Mounted	4	1	Rack Mount (Type 170 or NEMA TS1, TS-2 Racks)	12/24 VDC Power From Rack

- a. An option to have wireless video transmission between the camera sensor and VDP shall also be available from the VDS manufacturer.
- b. Wired camera systems shall be able to transmit NTSC or PAL video signals, with minimal degradation, up to 1000 feet under ideal conditions.
- c. Wireless camera systems shall be able to transmit an NTSC video signal, with minimal signal degradation, up to 500 feet under normal conditions and up to 900 feet under ideal electromagnetic interference conditions. Adjacent sources of electromagnetic radiation, or the absence of a direct line of sight between transmitter and receiver antennas, may result in video signal degradation.

C.2 System Interfaces

The following interfaces shall be provided for each of the configurations identified in Table 1.

- a. Video Input: Each video input shall accept RS170 (NTSC) or CCIR (PAL) signals from an external video source (camera sensor or VCR). The interface connector shall be BNC type and shall be located on the front of the video processing unit. The video input shall have the capability to select 75-ohm or high impedance (Hi-Z) termination.
- b. Video Lock LED: A LED indicator shall be provided to indicate the presence of the video signal. The LED shall illuminate upon valid video synchronization and turn off when the presence of a valid video signal is removed.
- c. Video Output: One video output shall be provided. The video output shall be RS170 or CCIR compliant and shall pass through the input video signal. For multi-channel video input configurations, a momentary push-button shall be provided on the front panel to toggle through each input video channel. In the absence of a valid video signal, the channel shall be skipped, and the next valid video signal shall be switched. The video output shall have the capability to show text and graphical overlays to aid in system setup. The overlays shall display real-time actuation of detection zones upon vehicle detection or presence. Overlays shall be able to be turned off by the user. Control of the overlays and video switching shall also be provided through the serial communications port. The video output interface connector shall be BNC type.

Serial Communications: A serial communications port shall be provided on the front panel. The serial port shall be compliant with EIA232 electrical interfaces and shall use a DB9 type connector. The serial communications interface shall allow the user to remotely configure the system and/or to extract calculated vehicle/roadway information. The interface protocol shall be documented, or interface software shall be provided. The interface protocol shall support multidrop or point-to-multipoint communications. Each VDS shall have the capability to be addressable.

- a. Contact Closure Output: Open collector contact closure outputs shall be provided. Four open collector outputs shall be provided for the single, dual or quad channel rack-mount configuration. Additionally, the VDPs shall allow the use of extension modules to provide up to 24 open collector contact closures per camera input. Each open collector output shall be capable of sinking 30 mA at 24 VDC. The open collector output will be used for vehicle detection indicators as well as discrete outputs for alarm conditions.
- b. Detection LEDs: LEDs shall be provided on the front panel. The LEDs shall illuminate when a contact closure output occurs. Rack-mounted video processors shall have a minimum of four LEDs. Rack-mounted extension modules shall have two or four LEDs to indicate detection.

- c. Mouse Port: A USB mouse shall be provided on the front panel of the rack mount video processing unit. The mouse port shall not require special mouse software drivers. The mouse port shall be used as part of system setup and configuration. A mouse shall be provided with each video processor.

C.3 General System Functions

Detection zones shall be programmed via an on-board menu displayed on a video monitor and a pointing device connected to the VDP. The menu shall facilitate placement of detection zones and setting of zone parameters or to view system parameters. A separate computer shall not be required for programming detection zones or to view system operation.

The VDP shall store up to three different detection zone patterns. The VDP can switch to any one of the three different detection patterns within 1 second of user request via menu selection with the pointing device.

The VDP shall detect vehicles in real time as they travel across each detection zone.

The VDP shall have an EIA232 port for communications with an external computer. The VDP EIA232 port shall be multi-drop capable.

The VDP shall accept new detection patterns from an external computer through the EIA232 port when the external computer uses the correct communications protocol for downloading detection patterns. A Microsoft Windows-based software designed for local or remote connection and providing video capture, real-time detection indication and detection zone modification capability shall be provided with the system.

The VDP system shall have the capability to automatically switch to any one of the stored configurations based on the time of day which shall be programmable by the user.

The VDP shall send its detection patterns to an external computer through the EIA232 port when requested when the external computer uses the correct communications protocol for uploading detection patterns.

The VDP shall default to a safe condition, such as a constant call on each active detection channel, in the event of unacceptable interference with the video signal.

The system shall be capable of automatically detecting a low-visibility condition such as fog and respond by placing all defined detection zones in a constant call mode. A user-selected output shall be active during the low-visibility condition that can be used to modify the controller operation if connected to the appropriate controller input modifier(s). The system shall automatically revert to normal detection mode when the low-visibility condition no longer exists.

C.4 Vehicle Detection

Up to 24 detection zones per camera input shall be supported and each detection zone can be sized to suit the site and the desired vehicle detection region.

The VDP shall provide up to 24 open collector output channels per camera input using one or more extension modules.

A single detection zone shall be able to replace multiple inductive loops and the detection zones shall be OR'ed as the default or may be AND'ed together to indicate vehicle presence on a single phase of traffic movement.

Placement of detection zones shall be done by using only a pointing device, and a graphical interface built into the VDP and displayed on a video monitor, to draw the detection zones on the video image from each video camera. No separate computer shall be required to program the detection zones.

Up to 3 detection zone patterns shall be saved for each camera within the VDP memory. The VDP's memory shall be non-volatile to prevent data loss during power outages.

The selection of the detection zone pattern for current use shall be done through a menu. It shall be possible to activate a detection zone pattern from VDP memory and have that detection zone pattern displayed within 1 second of activation.

The VDP system shall have the capability to automatically switch to any one of the stored configurations based on the time of day which shall be programmable by the user.

When a vehicle is detected within a detection zone, the corners of the detection zone shall activate on the video overlay display to confirm the detection of the vehicle.

Detection shall be at least 98% accurate in good weather conditions, with slight degradation possible under adverse weather conditions (e.g., rain, snow, or fog) which reduce visibility. Detection accuracy is dependent upon site geometry, camera placement, camera quality and detection zone location, and these accuracy levels do not include allowances for occlusion or poor video due to camera location or quality.

The VDP shall provide dynamic zone reconfiguration (DZR). DZR enables normal operation of existing detection zones when one zone is being added or modified during the setup process. The VDP shall output a constant call on any detector channel corresponding to a zone being modified.

Detection zone setup shall not require site specific information such as latitude and longitude to be entered into the system.

The VDP shall process the video input from each camera at 30 frames per second. Multiple camera processors shall process all video inputs simultaneously.

The VDP shall output a constant call for each enabled detector output channel if a loss of video signal occurs. The VDP shall output a constant call during the background learning period.

Detection zone outputs shall be configurable to allow the selection of presence, pulse, extend, and delay outputs. Timing parameters of pulse, extend, and delay outputs shall be user definable between 0.1 to 25.0 seconds.

Up to six detection zones per camera view shall have the capability to count the number of vehicles detected. The count value shall be internally stored for later retrieval through the EIA232 port. The zone shall also have the capability to calculate and store average speed and lane occupancy at bin intervals of 10 seconds, 20 seconds, 1 minute, 5 minutes, 15 minutes, 30 minutes, and 60 minutes.

C.5 Hardware General

The VDP and extension module (EM) shall be specifically designed to mount in a standard detector rack, using the edge connector to obtain power and provide contact closure outputs. No adapters shall be required to mount the VDP or EM in a standard detector rack. Detector rack rewiring shall not be required.

The EM shall be available to avoid the need of rewiring the detector rack, by enabling the user to plug an extension module into the appropriate slot in the detector rack. The extension module shall be connected to the VDP by an 8 wire cable with modular connectors, and shall output contact closures according to user selectable channel assignments. The EM is available in 2, 4, or 24 channel configurations.

C.6 Input Power

The VDP and EM shall be powered by 12/24 volts DC. VDP power consumption shall not exceed 7 watts.

The EM power consumption shall not exceed 2.5 watts.

C.7 Detection Outputs

The VDP and EM shall include detector output pin out compatibility with industry standard detector racks. The 24-channel EM shall provide output through a 37-pin "D" connector on the front panel.

C.8 Video Inputs

VDPs shall include one, two or four BNC video input connections suitable for composite video inputs. The video input shall include a switch selectable 75-ohm or high impedance termination to allow camera video to be routed to other devices, as well as input to the VDP for vehicle detection.

C.9 Video Outputs

The front of the VDP shall include one BNC video output providing real time video output that can be routed to other devices.

C.10 Mechanical and Environmental

The VDP shall operate satisfactorily in a temperature range from -34 °C to +74 °C and a humidity range from 0%RH to 95%RH, non-condensing as set forth in NEMA specifications.

The front panel of the VDP shall have detector test switches to allow the user to place calls on each channel. The test switch shall be able to place either a constant call or a momentary call depending on the position of the switch.

The front face of the VDP shall contain indications, such as LED displays, to enable the user to view real time detections for each channel of detection when the system is operational.

The VDP shall include an EIA232 port for serial communications with a remote computer. This port shall be a 9-pin "D" subminiature connector on the front of the VDP.

The VDP shall utilize non-volatile memory technology to enable the loading of modified or enhanced software through the EIA232 port and without modifying the VDP hardware.

C.11 Video Detection Camera

Video detection cameras used for traffic detection shall be furnished by the video detection processor (VDP) supplier and shall be qualified by the supplier to ensure proper system operation.

The camera shall produce a useable video image of the bodies of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera shall produce a useable video image shall be the minimum range from nighttime to daytime, but not less than the range 1.0 lux to 10,000 lux.

The imager luminance signal to noise ratio (S/N) shall be more than 50 dB.

The camera shall be digital signal processor (DSP) based and shall use a CCD sensing element and shall output color video with resolution of not less than 470 TV lines. The CCD imager shall have a minimum effective area of 768(h) x 494(v) pixels.

The camera shall include an electronic shutter control based upon average scene luminance and shall be equipped with an auto-iris lens that operates in tandem with the electronic shutter.

The camera shall utilize automatic white balance.

The camera shall include a variable focal length lens with variable focus that can be adjusted, without opening up the camera housing, to suit the site geometry by means of a portable interface device designed for that purpose and manufactured by the detection system supplier.

The horizontal field of view shall be adjustable from 5.4 to 50.7 degrees. This camera configuration may be used for the majority of detection approaches in order to minimize the setup time and spares required by the user. The lens shall be a 10x zoom lens with a focal length of 3.8mm to 38.0 mm.

The lens shall also have an auto-focus feature with a manual override to facilitate ease of setup.

The camera shall incorporate the use of preset positioning that store zoom and focus positioning information. The camera shall have the capability to recall the previously stored preset upon application of power.

The camera electronics shall include automatic gain control (AGC) to produce a satisfactory image at night.

The camera shall be housed in a weather-tight sealed enclosure. The enclosure shall be made of 6061 anodized aluminum. The housing shall be field rotatable to allow proper alignment between the camera and the traveled road surface.

The camera enclosure shall be equipped with a sunshield. The sunshield shall include a provision for water diversion to prevent water from flowing in the camera's field of view. The camera enclosure with sunshield shall be less than 6" diameter, less than 18" long, and shall weigh less than 6 pounds when the camera and lens are mounted inside the enclosure.

The enclosure shall be designed so that the pan, tilt, and rotation of the camera assembly can be accomplished independently without affecting the other settings.

The camera enclosure shall include a proportionally controlled heater, where the output power of the heater varies with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure.

The glass face on the front of the enclosure shall have an anti-reflective coating to minimize light and image reflections.

The glass face shall also employ a special coating to minimize the buildup of environmental debris such as dirt and water

When mounted outdoors in the enclosure, the camera shall operate satisfactorily in a temperature range from -34 °C to +60 °C and a humidity range from 0% RH to 100% RH. Measurement of satisfactory video shall be based upon VDP system operation.

The camera shall be powered by 120-240 VAC 50/60 Hz. Power consumption shall be 45 watts or less under all conditions. An optional DC power configuration shall be available for 12 VDC operation.

Recommended camera placement height shall be 33 feet (or 10 meters) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection the camera should be centered above the traveled roadway. The camera shall view approaching vehicles at a distance not to exceed 350 feet for reliable detection (height to distance ratio of 10:100). Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

The camera enclosure shall be equipped with separate, weather-tight connections for power and video cables at the rear of the enclosure. These connections may also allow diagnostic testing and viewing of video at the camera while the camera is installed on a mast arm or pole using a lens adjustment module (LAM) supplied by the VDP supplier. Video and power shall not reside within the same connector.

The video signal shall be fully isolated from the camera enclosure and power cabling.

C.12 Video Monitor

The monitor shall be a flat screen color video monitor with a minimum 9" diagonal picture display. It shall support EIA standards RS-170 composite video signal (1.0 v p-p, 75 OHM).

It shall have a resolution of 900 lines at center. Video bandwidth shall be >11 MHz. Loop through connectors shall be provided, and both input and output connectors shall be BNCs.

The monitor power source shall be 120 VAC +/- 10%, 60 Hz. Power consumption shall not be greater than 18 W. Ambient operating temperature shall be +50 to +122 degrees Fahrenheit.

Located on the front panel, the controls shall be on/off, contrast, bright, vertical hold, and horizontal hold.

Rear panel shall have controls for vertical size, vertical linearity and scan switch.

Dimensions shall not exceed 9" (W), 10" (H), and 7" (D). Weight shall not exceed 10 pounds

C.13 Coaxial Cable

The coaxial cable to be used between the camera and the VDP in the traffic cabinet shall be Belden 8281 or equal. This cable shall be suitable for installation in conduit or overhead with appropriate span wire. BNC plug connectors should be used at both the camera and cabinet ends. The coaxial cable, BNC connector, and crimping tool shall be approved by the supplier of the video detection system, and the manufacturer's instructions must be followed to ensure proper connection.

C.14 Power Cable

The power cabling shall be 16 AWG three conductor cable with a minimum outside diameter of 0.325 inch and a maximum diameter of 0.490 inch. The cabling shall comply with the National Electric Code, as well as local electrical codes. Cameras may acquire power from the luminaire if necessary.

Installation

The video detection camera shall be installed by factory-certified installers as recommended by the supplier and documented in installation materials provided by the supplier. Proof of factory certification shall be provided.

Warranty

The supplier shall provide a three-year warranty on the video detection system.

During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory-certified personnel or factory-certified installers.

During the warranty period, updates to VDP software shall be available from the supplier without charge.

Maintenance and Support

The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the video detection system. These parts shall be available for delivery within 30 days of placement of an acceptable order at the supplier's then current pricing and terms of sale for said parts.

The supplier shall maintain an ongoing program of technical support for the video detection system. This technical support shall be available via telephone, or via personnel sent to the installation site upon placement of an acceptable order at the supplier's then current pricing and terms of sale for on-site technical support services.

Installation or training support shall be provided by a factory-authorized representative and shall be a minimum IMSA-Level II Traffic Signal Technician certified.

All product documentation shall be written in the English language.

D Measurement

The department will measure Non-Intrusive Vehicle Detection System by each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.334	Non-Intrusive Vehicle Detection System	EACH

Payment is full compensation for furnishing and installing control units, cameras, cabling, mounting brackets, testing, and setting up the system.

**101. Furnish & Install APS System (John Nolen Drive & North Shore Drive), Item SPV.0060.335;
Furnish & Install APS System (John Nolen Drive & Broom Street), Item SPV.0060.336.**

A Description

This special provision describes furnishing and installing Accessible Pedestrian Signal Push Button assembly on traffic signal poles.

B Materials

Furnish a Polara iNS2 2-Wire Push Button Station with 9"x15" MUTCD R10-3e sign for each location shown on the plans and one (1) Polara iCCU-S2 central control unit for the traffic signal control cabinet. The contractor shall submit the proposed equipment to the DEPARTMENT and the City of Madison for final review and approval. Payment will not be made for materials ordered before final review and approval by the DEPARTMENT and the City of Sun Prairie. Coordinate the audible messages with the City of Sun Prairie.

Furnish all materials required to complete connections between system components and between the system and the traffic signal controller and pedestrian traffic signal heads. Furnished materials shall conform Standard Specifications 651.2, 655.2, and 658.2.

C Construction

Construction shall be in accordance with Standard Specifications 651.3, 655.3, and 658.3, manufacturer's recommendations, the project plans, or as directed by the Engineer. Perform testing and ensure that the system is in full operation prior to acceptance.

D Measurement

The Department will measure Furnish & Install APS System (intersection) as each individual unit acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.335	Furnish & Install APS System (BUS 151 (John Nolen Drive & North Shore Drive)	EACH
SPV.0060.336	Furnish & Install APS System (John Nolen Drive & Broom Street)	EACH

Payment is full compensation for furnishing and installing system components, cabling, integration with the traffic signal control cabinet, and testing.

**102. Temporary Traffic Signals (John Nolen Drive & North Shore Drive), Item SPV.0060.337;
Temporary Traffic Signals (John Nolen Drive & Broom Street), Item SPV.0060.338.**

A Description

This special provision describes installing temporary traffic signals for intersections, using overhead electrical wiring to temporary traffic signal poles and temporary supports, and providing non-intrusive vehicle detection in accordance with standard spec 661 and as amended herein.

B Materials

Furnish and use materials that are in accordance with standard spec 661.2 and as amended herein.

B.1 Signal Poles and Signal Faces

Furnish new or used poles and traffic signal standards for use in temporary signals conforming to the pertinent requirements of standard specs 657 and 661. Furnish signal faces in accordance with standard spec 661.2.2.2.

B.2 Signal Cabinet

Furnish new or equivalent to new materials as specified in standard spec 661.2 and as follows:

B.2.1 Controller

Furnish a new or equivalent to new Econolite Cobalt EOS controller. The controller shall be compatible with the City of Madison closed loop system (CLS).

B.2.2 Conflict Monitor

Furnish a new or equivalent to new NEMA+ 12-Channel Signal Conflict Monitor, with LCD display, and an Ejector Tab card release on side of card.

Provide keys to the temporary signal control cabinet to the City of Madison in addition to other required keys in accordance to standard spec 661.2.1.

B.3 Luminaires

Furnish luminaire arms and luminaries conforming to the pertinent requirements of standard spec 657 and 659. The luminaries shall be 250-watt, full cutoff, LED and shall be furnished with photo electric cells to turn the luminaire on and off.

B.4 Pre-emption Hardware, Cable, and Equipment

Furnish and install Optical signal preempt for the temporary signals. All approach directions need to be detected and brought back individually to the signal control cabinet.

B.5 Vehicle Detection Hardware, Cable and Equipment

The contractor, with prior approval of the engineer and the City of Madison, shall select the vehicle detection technology best suited for the site conditions and the anticipated construction work zones and activities. The engineer reserves the right to request a demonstration of any or all temporary vehicle detection technologies prior to said approval. Vehicle detection technologies considered shall include; but are not limited to, temporary inductive loops, microwave detection, or video detection. Detection technology shall provide for true presence detection.

Damage to new pavement for temporary detection loops will not be allowed. Any pavement damaged during installation shall be replaced at the contractor's expense.

C Construction

C.1 General

Revise paragraph 661.3.1(2) as follows.

Request a signal inspection of the complete temporary traffic signal installation. Make this request to the engineer at least 5 working days before the requested inspection. The City of Madison traffic signal personnel will perform the traffic signal inspection.

The City of Madison will load the timing programs into the controller. Do not use new permanent signal conduit for temporary signal wiring. Provide horizontal and vertical clearance between sidewalks and guy wires.

Arrange for all required electrical service modifications with the utility. Pay all utility company installation costs for modifications required to maintain the Temporary Traffic Signal.

Locate and avoid all underground and aboveground utilities and structures. Install temporary supports as required to avoid conflicts with proposed curb and gutter, sidewalk, and traffic signal poles. The engineer will approve the final location of wood poles prior to installation.

Use of self-supporting poles will likely be required due to limited right-of-way limitations and depending on contractor operations.

Maintain temporary signals throughout the construction of the project, until such time that the new signals are operational and have been accepted by, and turned over to the

City.

C.2 Signal Heads

Install signal heads for the same vehicle travel direction at a minimum of 10 feet from each other. Move signal heads as necessary or as directed by the engineer.

C.3 Cabinet

Require a representative from the cabinet supplier on-site at the time of the turn on. Install equipment in the cabinet as follows:

C.3.1 Controller

Install the controller and ensure that it is operational as part of the City of Madison closed loop system.

C.4 Luminares

Install luminaire arms and luminaries conforming to the pertinent requirements of standard spec 657 and 659.

C.5 Pre-emption Hardware, Cable, and Equipment

Install detector cards, sensors, cables, and all required ancillary equipment, appurtenances and mounting hardware at the temporary signals to provide a fully functioning pre-emption system. Arrange testing of the pre-emption system with the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop, (608) 266-9031, before turn-on of the temporary signal.

C.6 Vehicle Detection Hardware, Cable and Equipment

Install detector cards, sensors, cables and all required ancillary equipment, appurtenances and mounting hardware at the temporary signals to provide a fully functioning vehicle detection system for all approaches. The desired vehicle detection zones and temporary signal phasing are shown on the plans.

Arrange testing of the temporary detection system with the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop, (608) 266-9031, before turn-on of the temporary signal.

Adjust, relocate, add, or remove temporary vehicle detection equipment for each traffic control stage or sub stage as shown in the plans, requested by the engineer, or as modified by the contractor's operations to maintain the required traffic and complete the proposed work. Damage to new pavement for temporary detection loops will not be allowed. Any pavement damaged during installation shall be replaced at the contractor's expense.

C.7 Maintenance

When a signal installation or signal head is not in operation, hood, turn, or take down the signal head(s) to clearly indicate that the signal is not in operation. (See MUTCD 4D-1).

Provide immediate response, 24-hour/7-days per week, to maintain any aspect of the temporary vehicle detection that is defective, completing repairs or adjustments the same day as notification.

C.8 Contractor Qualifications

Demonstrate the ability to operate all required traffic signal equipment listed in this special provision for the engineer and the City of Madison prior to starting work. Provide proof of the ability to obtain all required traffic signal equipment listed in this special provision to the engineer and the City of Madison prior to starting work.

D Measurement

The department will measure Temporary Traffic Signals (Location), completed in accordance to the contract and accepted, as a single unit of work, and in accordance to standard spec 661.4.

If repairs or adjustments to restore vehicle detection to full function are not made the same day as notification, the associated pay item shall be reduced by the following amounts:

- a) First instance: No deduct if repaired within 24 hours
- b) Each subsequent instance: 5% deduction for each day or partial day of non-compliance.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.337	Temporary Traffic Signals (John Nolen Drive & North Shore Drive)	EACH
SPV.0060.338	Temporary Traffic Signals (John Nolen Drive & Broom Street)	EACH

Payment for the Temporary Traffic Signals bid item is full compensation for providing, operating, maintaining, and repairing the complete temporary installation; and for removal of the temporary installation. Payment also includes the following:

1. Providing replacement equipment.
2. All utility charges for installation and disconnection. The City of Madison will pay for energy costs.
3. The cost of delivery and pick-up of the cabinet assemblies for department testing.

103. Temporary Lighting, John Nolen Drive, Item SPV.0060.339.

A Description

This special provision describes furnishing, installing, maintaining, relocating, removing and restoring wood poles, temporary electrical service, electrical wire lighting, 14-3 type UF cable according to standard spec 655 and these specifications in order to maintain lighting within the project limits for John Nolen Drive per plans.

B Materials

Existing street lighting equipment shall remain in use for as long as possible. The department must approve the use of any existing street lighting equipment beyond the time the equipment is noted to be removed; or if it is to be used at other locations on the project. Removal of the existing lighting equipment shall be paid under separate bid items in this contract.

B.1 Street Light Conductors

Furnish and install type UF cable with ground including the number and size of conductors as the plans show and in accordance with the City of Madison standard specifications. Use cable conforming to ANSI/UL 493.

B.2 Wood Poles

Furnish and install wood poles in accordance with WisDOT 661 Wood Poles Class 4 specifications. Including any and all Guy, Span, and Messenger wire necessary to provide temporary street lighting as shown on plans and in accordance with WisDOT 661.

B.3 Luminaires and arms

Furnish & Install luminaire arms and luminaires on temporary wood poles conforming to the pertinent requirements of standard spec 657 and 659. The luminaire shall be 150-watt LED, full cutoff and shall be furnished with photo electric cells to turn the luminaire on and off.

B.4 Aerial Cable

Furnish aerial cable consisting of an assembly of three No. 4 XLP insulated power conductors with an ACSR messenger (grounding) wire. Furnish a quantity of parallel cable assemblies as needed to maintain lighting circuits. Furnish a plastic cable guard to protect all cable that extends to/from grade to 10 feet above grade. Furnish guy, span and messenger wire conforming to the requirements in standard spec 661.2.1.3. Furnish aerial cable mounting hardware conforming to the requirements in standard spec 661.2.1.4.

C Construction

C.1 General

Furnish and install wood poles, streetlight conductors, electrical service, and luminaires for temporary lighting as shown in the plans.

Install aerial cable and mounting hardware conforming to all requirements under standard spec 661.3.

At locations, including outside construction limits, where existing luminaires are to be maintained, the contractor shall make temporary connections to maintain existing lighting during construction.

Contractor shall re-connect permanent conductors to complete the existing street light circuit prior to removing temporary streetlights.

Maintain temporary lighting throughout the project per plan, and as generally outlined: install wood poles with conductors and lighting along the NB side of John Nolen Dr during stage 1. Utilize temporary signal infrastructure as shown on the plans to route through intersection work zones. Shift temporary infrastructure to the SB side of John Nolen Dr during stage 2B for operations during stage 3 through final. Remove temporary lighting after permanent lighting has been installed, accepted and operational.

Contractor shall be permitted to use temporary lighting and signal wood poles for maintaining backbone fiber along John Nolen Drive.

Maintain the existing and temporary lighting systems within the construction limits for the duration of the project. Maintenance includes, but is not limited to:

- Coordinating utility service modifications
- Rerouting existing conduit and wiring
- Installing temporary conduit and wiring
- Adjusting or relocating existing street lights
- Installing temporary street lights
- Replacement of burned out lamps
- Replacement of knocked down poles
- Maintaining continuous lighting for the duration of the project

Supply an off-hours contact(s) for repair purposes. Respond within 1 hour to the project site for knockdowns or other work that must be completed in a timely manner. Provide the name, address, and telephone number(s) of the persons qualified and assigned to maintaining the temporary lighting to the engineer and local police. Ensure the persons are available 24 hours a day, 7 days a week, from the start of the project through completion. Ensure that emergency calls are received by an individual and not by an answering machine. Complete all other maintenance needs within 6 hours of notification.

Continuously monitor the existing and temporary lighting systems until construction is complete. Any existing street lights outside of the project limits must be maintained at all times that are serviced through a circuit(s) within the project limits.

Coordinate work with City of Madison Electrical Operations Lead Worker, (608) 266-9031 at least 7 days prior to starting any work that will modify elements of the existing street lighting system including, but not limited to: removing existing lights, installing temporary lights, making underground conduit connections and electrical service modifications.

C.2 Existing Lighting Equipment

Use existing street lighting equipment as required to maintain illumination over the active travel lanes. Obtain approval from the engineer to modify any existing lighting equipment. Modifications include, but are not limited to; drilling holes, attaching aerial wiring, and attaching conduit risers. Do not damage any

existing equipment in a manner which renders it useless unless the item has been scheduled for disposal after the completion of the project Removal of the existing lighting equipment shall be paid under separate bid items in this contract.

C.3 Electrical Services

Assume all maintenance obligations for the existing street lighting services as well as any temporary street lighting services during the project construction. The City of Madison will pay all energy charges to the utility for existing and temporary lighting systems.

All street lighting changes need to be tracked continuously for energy billing purposes. Maintain a weekly record of lighting changes for the entire duration of the project. Note the date of any installation or removal of a light fixture. Also note the type and wattage of the light fixture being removed or installed. Use the record of lighting changes to determine accurate energy charges. Provide all documentation of lighting changes to the City of Madison throughout the project.

D Measurement

The department will measure Temporary Lighting, John Nolen Drive, completed according to the contract and accepted, as each unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.339	Temporary Lighting, John Nolen Drive	EACH

Payment is full compensation for providing, operating, maintaining, and repairing the complete temporary installation. Payment also includes furnishing and installing all necessary materials and mounting equipment, as well as all utility installation fees through completion of the project. Electricity to run the temporary lighting will be paid for by the City of Madison.

104. Temporary Fiber, John Nolen Drive, Item SPV.0060.340.

A Description

This special provision describes furnishing, installing, maintaining, relocating, removing and restoring wood poles, and aerial fiber optic cable according to these specifications in order to maintain fiber connections within the project limits for John Nolen Drive per plans.

B Materials

Existing fiber optic backbone infrastructure shall remain in use for as long as possible. The department must approve the use of any existing fiber equipment beyond the time the equipment is noted to be removed; or if it is to be used at other locations on the project. Removal of the existing fiber equipment, fiber splicing and splice enclosures shall be paid under separate bid items in this contract.

B.1 Wood Poles

Furnish and install wood poles in accordance with WisDOT 661 Wood Poles Class 4 specifications. Including any and all Guy, Span, and Messenger wire necessary to provide temporary fiber routing as shown on plans and in accordance with WisDOT 661.

B.2 Aerial Fiber Cable

Furnish ultra low loss single mode loose tube OS2 144 count fiber cable suitable for outdoor installation. Each fiber shall be color coded with a maximum 12 fibers per color coded polyethylene buffer tube jacket. Color coding shall not cause microbending or fibers to stick to each other. The cable shall have a fully water blocked core. Cable shall be armored for rodent and weather resistance

B.3 Splice Enclosures

Furnish Tyco D splice cases in accordance with City of Madison standards at the locations as shown on the plans. Splice enclosures shall be paid for separately under the respective bid item.

B.4 Manholes and Lids

Furnish temporary manholes according to City of Madison standard type V, item SPV.0060.303 as defined in this document, and according to the locations noted on the plans.

Furnish temporary manhole covers/lids as noted on the plans to facilitate fiber routing from underground to overhead. Coordinate with the City of Madison Traffic Engineering, and the Engineer in the field for determination of a suitable product.

C Construction

C.1 General

Furnish and install wood poles, aerial fiber cable, splice enclosure and manholes/covers for temporary fiber as shown in the plans.

Install aerial cable and mounting hardware conforming to all requirements under standard spec 661.3.

Fiber cut overs shall be limited to three (3) outage periods for the duration of the project. One (1) outage for each temporary installation (2 total), and one (1) outage for the permanent installation.

At locations, including outside construction limits, where existing fiber is to be maintained, the contractor shall make temporary connections to maintain operations during construction.

Fiber optic splice work shall only occur during the typical City maintenance window (midnight – 6am)

Contractor shall re-connect permanent fiber cable to complete the fiber backbone prior to removing temporary infrastructure.

Maintain temporary fiber throughout the project per plan, and as generally outlined: install wood poles with conductors and lighting along the NB side of John Nolen Dr during stage 1. Utilize temporary signal and lighting infrastructure as shown on the plans to route around work zones. Shift temporary infrastructure to the SB side of John Nolen Dr during stage 2B for operations during stage 3 through final. Remove temporary lighting after permanent lighting has been installed, accepted and operational.

Contractor shall be permitted to use temporary lighting and signal wood poles for maintaining backbone fiber along John Nolen Drive.

Maintain the existing and temporary fiber systems within the construction limits for the duration of the project. Maintenance includes, but is not limited to:

- Rerouting existing conduit and cable
- Installing or rerouting temporary overhead cable
- Adjusting or relocating wood poles
- Replacement of knocked down poles
- Maintaining continuous connectivity for the duration of the project

Supply an off-hours contact(s) for repair purposes. Respond within 1 hour to the project site for knockdowns or other work that must be completed in a timely manner. Provide the name, address, and telephone number(s) of the persons qualified and assigned to maintaining the temporary fiber to the engineer and local police. Ensure the persons are available 24 hours a day, 7 days a week, from the start of the project through completion. Ensure that emergency calls are received by an individual and not by an answering machine. Complete all other maintenance needs within 6 hours of notification.

Continuously monitor the existing and temporary fiber systems until construction is complete. Any existing fiber connections outside of the project limits must be maintained at all times that are connected through the fiber backbone.

Coordinate work with City of Madison Electrical Operations Lead Worker, (608) 266-9031 at least 7 days prior to starting any work that will modify elements of the existing fiber system including, but not limited to: removing existing handholes, installing temporary wood poles and making underground conduit connections.

C.2 Existing/Temporary Electrical Equipment

Use existing street lighting or signal equipment as required to maintain overhead fiber connectivity over the active travel lanes. Obtain approval from the engineer to modify any existing lighting or signal equipment. Modifications include, but are not limited to; drilling holes, attaching aerial wiring, and attaching conduit risers. Do not damage any existing equipment in a manner which renders it useless unless the item has been scheduled for disposal after the completion of the project. Removal of the existing equipment shall be paid under separate bid items in this contract.

D Measurement

The department will measure Temporary Fiber, John Nolen Drive, completed according to the contract and accepted, as each unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.340	Temporary Fiber, John Nolen Drive	EACH

Payment is full compensation for providing, operating, maintaining, and repairing the complete temporary installation. Payment also includes furnishing and installing all necessary materials and mounting equipment; as well as all utility installation fees through completion of the project.

105. Install 4" Bike Signal Head, Item SPV.0060.341.

A Description

This special provision describes furnishing and installing a 4" bike traffic signal head.

B Material

Furnish a black UV-stabilized polycarbonate and aluminum back 100mm 3 aspect diameter bike signal head. Impact resistance Class IR2 or IR3 and certified in accordance with EN12368. Water and dust proof.

C Construction

Install the 4" bike signal head with a bracket to the pole as shown in the plans. Wires from the signal head to the base should be at least 10' long. Signal head should be mounted 4' from the surface to the bottom of the signal head.

D Measurement

The department will measure Install 4" Bike Signal Head 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.0060.341	Install 4" Bike Signal	EACH

Payment is full compensation for furnishing and installing the 4" bike signal and all auxiliary equipment.

106. Fiber Optic Fusion Splice – 1 to 12 Per Location, Item SPV.0060.342; Fiber Optic Fusion Splice – 97 to 144 Per Location, Item SPV.0060.343; Fiber Optic Fusion Splice – > 144 Per Location, Item SPV.0060.344.

A Description

This special provision describes furnishing tools, personnel and equipment needed to perform optical cable splicing by the Contractor.

B Material

Tools and equipment furnished by the contractor include all cable, splice cases and trays for all splice protection sleeves and consumables related to outdoor cable splicing. Protect bare fibers with a heatshrink coating before placement in a sleeve or housing.

The Contractor shall provide all personnel, tools, and equipment needed to perform optical cable splicing in an environmentally controlled vehicle or trailer designed specifically for optical cable splicing. All permanent splicing will be single strand fusion type splices and paid for by the number of splices per location.

C Construction

All cable strand splicing by the Contractor will be performed using a fusion splice machine that is capable of splicing within a 0.2dB loss tolerance and equipped with either live monitoring or a Local Injection Detection (LID) testing system, thus ensuring the splice quality while the splice is set up in the machine. All splices will be protected with appropriate clear heat shrink fusion splice sleeves fitted with steel-reinforcing rod(s) provided by the Contractor to protect the fiber from scoring, dirt, accumulation, moisture intrusion, and micro bending.

The Contractor shall install the fiber optic splice enclosure according to the manufacturer's recommended guidelines and perform end-to-end splicing according to the manufacturer's instructions for the supplied splice enclosure units.

The Contractor shall perform Communication System Testing according to WisDOT Standard 678.3.4 and shall label the cable with Owner – Strand Count – Start Point – End Point.

D Measurement

The department will measure Fiber Optic Fusion Splicing, complete in place and accepted, shall be measured as a unit, each, fused single strand.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.342	Fiber Optic Fusion Splice - 1 to 12 Per Location	EACH
SPV.0060.343	Fiber Optic Fusion Splice - 97 to 144 Per Location	EACH
SPV.0060.344	Fiber Optic Fusion Splice - > 144 Per Location	EACH

Payment is full compensation for furnishing and installing all materials.

107. 24x24x12 Junction Box, Item SPV.0060.345.

A Description

This special provision describes furnishing and installing a 24x24x12 Junction Box.

B Material

Furnish a 24x24x12 stainless steel junction box in accordance with the plans and section 653.2 of the standard specifications.

C Construction

Surface mount junction boxes in accordance with the plans and section 653.3 of the standard specifications

D Measurement

The department will measure 24x24x12 Junction Box 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.0060.345	24x24x12 Junction Box	EACH

Payment is in accordance with section 653.5.

108. 24x24x12 Junction Box, Item SPV.0060.345.

A Description

This special provision describes furnishing and installing a 24x24x12 Junction Box.

B Material

Furnish a 24x24x12 stainless steel junction box in accordance with the plans and section 653.2 of the standard specifications.

C Construction

Surface mount junction boxes in accordance with the plans and section 653.3 of the standard specifications

D Measurement

The department will measure 24x24x12 Junction Box 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.0060.345	24x24x12 Junction Box	EACH

Payment is in accordance with section 653.5.

109. Pavement Cleanup, Item SPV.0075.001.

A Description

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site.

B Materials

B.1 Pavement Cleanup

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Utilize vacuum equipment with a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified herein or approved by the engineer.

C Construction

C.1 Pavement Cleanup

Keep all pavements, curb lanes and gutters both closed and open to public traffic within the job-site boundaries free of dust and debris generated from any activity under the contract. Keep all pavements, curb lanes and gutters adjacent to the project free of dust and debris that are affected by land disturbing, dust generating activities, as defined in the contractor's dust control implementation plan.

Conduct sweepings as the engineer directs or approves, to deal with dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Respond to emergency sweeping requests within 4 hours.

If the vacuum-type sweeper breaks down, a mechanical broom sweeper may be substituted for no more than 24 hours total elapsed time. Repair the vacuum-type sweeper within that 24 hours or substitute a vacuum-type sweeper.

Skid steers with mechanical power brooms may only be utilized on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer.

D Measurement

The department will measure Pavement Cleanup by the hour acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.001	Pavement Cleanup	HRS

Payment is full compensation for surveillance, mobilization, sweeping, and disposing of materials.

**110. Concrete Curb & Gutter 24-Inch Type A, Item SPV. 0090.001;
Concrete Curb & Gutter 24-Inch Type D, Item SPV.0090.002;
Concrete Curb & Gutter 36-Inch Type A, Item SPV.0090.003;
Concrete Curb & Gutter 24-Inch Special, Item SPV.0090.004.**

A Description

This special provision describes constructing concrete curb and curb and gutter in accordance with the pertinent requirements of section 601 of the standard specifications and the construction details shown in the plans.

B Materials

The curb and gutter shall be in accordance with the pertinent materials of section 601 of the standard specifications.

C Construction

Perform work in accordance with section 601 of the standard specifications.

D Measurement

The department will measure Concrete Curb & Gutter 24-Inch (Type), Concrete Curb & Gutter 36-Inch Type A, and Concrete Curb & Gutter 24-Inch Special by linear foot acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Concrete Curb & Gutter 24-Inch Type A	LF
SPV.0090.002	Concrete Curb & Gutter 24-Inch Type D	LF
SPV.0090.003	Concrete Curb & Gutter 36-Inch Type A	LF
SPV.0090.004	Concrete Curb & Gutter 24-Inch Special	LF

Payment shall be in accordance with section 601.5 of the standard specifications.

**111. Sign Post, Item SPV.0090.005;
Reflective Sign Post, Item SPV.0090.006.**

A Description

This special provision describes furnishing and installing new sign posts, reflective sign posts, and or powder coated sign posts for signs. All signposts shall be round tubular steel and installed as shown in the plans.

B Materials

All materials shall conform to the standard specifications for hot rolled carbon sheet steel, commercial quality, ASTM A-570-GR-33 for zinc coated tubing to resist corrosion. The tube shall be 2-inch, schedule-40 and shall include end cap. Reflective sign post shall have two sheets of engineer grade yellow sheeting completely around pipe as shown in the plans.

C Construction

Install the signposts at the locations shown on the plans and approved by the engineer. If the finished grade cannot be determined, ask the engineer to identify the final grade. Install all signs in a true vertical position conforming to the latest edition of the Manual on Uniform Traffic Control Devices. Also, locate all underground utilities prior to placing sign posts. Cut off excess length of post in the field to provide the desired sign clearance.

D Measurement

The department will measure (Type) Sign Post per length shown in the miscellaneous quantities 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.0090.005	Sign Post	LF
SPV.0090.006	Reflective Sign Post	LF

Payment is full compensation for furnishing and installing all necessary posts, reflective sheeting, finials, hardware and anchors. All materials damaged during construction shall be replaced with new items at no cost to the department.

112. Railroad Storm Sewer Box 3-FT X 6-FT, Item SPV.0090.007.

A Description

This special provision describes constructing and installing a precast storm sewer box underneath a railroad crossing.

B Materials

B.1 Concrete

Furnish concrete in accordance with section 501.2 of the standard specifications.

B.2 Steel Reinforcement

Follow the requirements of section 505.2 of the standard specifications and furnish bar steel reinforcement in accordance with section 505.2.2 of the standard specifications.

B.2 Backfill and Joint Connections

Furnish backfill and joint connections in accordance with section 608.2.2 of the standard specifications.

C Construction

C.1 Storm Sewer Box

Perform underground locates (ULO) of any potential utility crossings prior to starting construction to verify the plan elevations and clearances.

Construct the precast steel reinforced storm sewer box in accordance with the lines, dimensions, elevations, and details as shown in the plans. The minimum length of precast segments shall be 6-feet within 9-feet of the track centerline. Center a 6-foot precast segment underneath the railroad centerline. Submit shop drawings electronically to the engineer for approval. No construction of the precast storm sewer box will be permitted until approval of the shop drawings.

C.1 Storm Sewer Box Installation

Perform storm box installation in accordance with section 608.3 of the standard specifications.

D Measurement

The department will measure Railroad Storm Sewer Box 3-FT X 6-FT 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.0090.007	Railroad Storm Sewer Box 3-FT X 6-FT	LF

Payment is full compensation in accordance with section 608.5.2 of the standard specifications including shop drawings. Underground locates will be paid for separately.

113. Storm Sewer Box 3-FT X 6-FT, Item SPV.0090.008.

A Description

This special provision describes providing and installing a precast rectangular storm sewer box.

B Materials

Furnish concrete storm sewer box conforming to ASTM C1577 and section 608.2 of the standard specifications.

C Construction

Construct the storm sewer box as detailed in the plan. Construct in accordance with section 608 and Chapter 36 of the Bridge Manual.

D Measurement

The department will measure Storm Sewer Box 3-FT X 6-FT 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.0090.008	Storm Sewer Box 3-FT X 6-FT	LF

Payment is full compensation in accordance with section 608.5 of the standard specifications and for shop drawings.

114. Temporary Asphaltic Curb, Item SPV.0090.009.**A Description**

This special provision describes constructing and removing asphaltic curb in accordance with the pertinent requirements of section 465 and 601 of the standard specifications and the construction details shown in the plans.

B Materials

Furnish material in accordance with the pertinent materials of section 465 of the standard specifications.

C Construction

Perform work in accordance with section 465 and 601 of the standard specifications.

D Measurement

The department will measure Temporary Asphaltic Curb 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.0090.009	Temporary Asphaltic Curb	LF

Payment is full compensation for providing asphaltic material, compacting the mixture, forming and placing the asphaltic curb, and for removing the asphaltic curb.

115. Fence Chain Link Polymer Coated, Item SPV.0090.010.**A Description**

This special provision describes furnishing and installing a polymer-coated chain link fence in accordance with the pertinent requirements of section 616 of the standard specifications.

B Materials

The fence components shall be in accordance with the pertinent materials of section 616 of the standard specifications.

Provide polymer-coating over chain link fence components that conforms to the requirements of ASTM F626, F668, and F1043. The color (Black) of polymer-coating shall conform to the requirements of ASTM F934 The color of all fence components shall be the same.

C Construction

Perform work in accordance with section 616 of the standard specifications.

Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and the condition of materials is in conformance with these specifications. If polymer coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the department. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer coated material with care.

For minor damage caused by shipping, handling, or installation to polymer coated surfaces, touch up the finish in conformance with the manufacturer's recommendations. Provide touch up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the department. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

D Measurement

The department will measure Fence Chain Link Polymer Coated 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.0090.010	Fence Chain Link Polymer Coated	LF

Payment is in accordance with section 616 of the standard specifications and for galvanizing and polymer coating all fence components.

116. Marking Stop Line Epoxy 24-Inch, Item SPV. 0090.011.

A Description

This special provision describes constructing providing epoxy pavement markings in accordance with standard spec 646 of the standard specifications.

B Materials

Furnish materials in accordance with standard spec 646.2 of the standard specifications.

C Construction

Perform work in accordance with standard spec 646.3 of the standard specifications.

D Measurement

The department will measure Marking Stop Line Epoxy 24-Inch by the linear foot acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.011	Marking Stop Line Epoxy 24-Inch	LF

Payment is full compensation in accordance with section 646.5 of the standard specifications.

117. Furnish and Install Watermain Pipe & Fittings 12-Inch, Item SPV.0090.012.

A Description

Furnish and install watermain pipe and fittings of the size and type specified in the plans, these specifications and according to section 704.3 of the City Standard Specifications.

B Materials

Furnish restrained joint ductile iron pipe manufactured according to the requirements of ANSI/AWWA C151/A21.51. Push-on joints for such pipe must be according to ANSI/AWWA C111/A21.11 "Rubber-Gasket Joints for Ductile-Iron Pipe and Fittings." Pipe must be designed according to ANSI/AWWA

C150/A21.50 "Thickness Design of Ductile-Iron Pressure Pipe." Use thickness class 52 pipe. Cement mortar lining and seal coating for pipe and fittings, where applicable, must be according to ANSI/AWWA C104/A21.4. Asphaltic outside coating shall be according to ANSI/AWWA C151/A21.51 for pipe and ANSI/AWWA C110/A21.10 or ANSI/AWWA C153/A21.53 for fittings. Restrained push-on joints for pipe must be designed for a working pressure of 350 psi. Furnish mechanical joint ductile iron pipe fittings according to section 702 of the City Standard Specifications. Furnish nitrile and/or fluorocarbon gaskets in place of rubber gaskets where shown on the plans or as required in areas of contamination discovered in the field. Fluorocarbon gaskets will be paid for under a separate item.

C Construction

Install watermain pipe and fittings according to manufacturer's recommendations and section 703 of the City Standard Specifications.

Install nitrile and/or fluorocarbon gaskets in place of rubber gaskets where shown on the plans.

D Measurement

The department will measure Furnish & Install Watermain Pipe & Fittings (Size) by the linear foot, acceptably completed. All fittings and gaskets, excluding fluorocarbon gaskets, shown on the plans are included in the linear foot price for Watermain Pipe and Fittings.

E Payment

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

SPV.0090.012	Furnish & Install Watermain Pipe & Fittings, 12-Inch	LF
--------------	--	----

Payment is full compensation for excavation of the trench, installation and removal of sheeting and bracing; removal of water from the trench; disposal of surplus material from the trench; backfilling the trench and compaction of the backfill material; embankment over the main using surplus material from the excavation of the trench; bedding the pipe; laying the pipe and installing the fittings and accessories; jointing and sealing of joints in pipe, fittings and accessories; encasement, where specified; connections to existing structures; testing and cleaning out the main; and restoring the site.

118. Piling CIP Concrete 18 x 0.5-Inch, Item SPV.0090.201.

A Description

This special provision describes providing cast in place concrete piles; providing test piles; driving piles; and determining required driving resistance in accordance with Standard Spec 550 and as supplemented below.

B Materials

Furnish materials in accordance with Standard Spec 550.2.

C Construction

Construct in accordance with Standard Spec 550.3.

D Measurement

Measure in accordance with Standard Spec 550.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.201	Piling CIP Concrete 18 x 0.5-Inch	LF

Payment is full compensation in accordance with Standard Spec 550.5.2.

119. Loop Detector Lead-In Cable Special, Item, SPV.0090.301.

A Description

This special provision describes furnishing and installing loop detector lead in cable according to standard spec 655.

B Materials

Furnish 0.25 inch diameter, 4-conductor, #18 AWG, waterproof, shielded, polypropylene insulation cable, with HDPE outer jacket. Meeting IMSA specifications. Provide loop detector lead in cable to be smooth on the outside without any ripples or ribbing from cable wires.

C Construction

Furnish and install one cable for every two loops from each loop handhole to the intersection control cabinet via the most direct route, without intermediate splicing. Most of the loops will be new and are shown on the plan. Install cable for some existing loops. Verify cable needs with the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop, (608) 266-9031, before completing intersection wiring.

D Measurement

The department will measure Loop Detector Lead In Cable by the linear foot, acceptably completed, measured from the splice with the loop lead in wire along the centerline of the conduit to its connection with terminals in the control cabinet.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.301	Loop Detector Lead-In Cable Special	LF

Payment is full compensation for furnishing and installing all materials to complete the work.

120. Fiber Optic Cable 288-Count, Item SPV.0090.302.

A Description

This special provision describes furnishing and installing 288-count fiber optic cable as specified in standard specs 651, 655, 670, and 678, as shown on the plans, and as provided hereinafter.

B Materials

Furnish single mode (SM), It armored, loose-tube 288-count fiber optic cable rated for outdoor use.

All fiber optic cable glass shall be supplied by the same manufacturer and shall be part of a fiber optic cable utilizing loose tube construction with the following properties:

Parameters	Single Mode
Type	Step Index
Code Diameter	8.3μm (nominal)
Cladding Diameter	125 ± 1.0μm
Core to Cladding Offset	≤0.8 μm
Coating Diameter	245 ± 10μm
Cladding Non-Circularity	≤1.0%
Proof Tensile Test	0.7 GPa
Attenuation	@1310nm ≤ 0.4 dB/km @1550nm ≤ 0.3 dB/km
Chromatic Dispersion Zero Dispersion	1310 ± nm (centered on a nominal operating wavelength of 1310)
Zero Dispersion Slope	≤0.092 ps/nm ² /km
Maximum Dispersion	≤ 2.8 ps/nm/km at 1285 - 1330 nm
Cut-Off Wavelength	1260 nm

C Construction

Follow all manufacturer's recommended installation procedures. Contact the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop,

(608) 266-9031 a minimum of seven (7) working days in advance to coordinate installing equipment in existing traffic signal cabinet.

D Measurement

The department will measure Fiber-Optic Cable 288-Count 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.0090.302	Fiber Optic Cable 288-Count	LF

Payment is full compensation for furnishing and installing the fiber optic cable.

121. Electrical Wire Lighting 14-3 UF Grounded, Item, SPV.0090.303.

A Description

This special provision describes furnishing and installing electrical wire lighting, 14-3 type UF cable according to standard spec 655 and these specifications.

B Material

Furnish type UF cable with ground including the number and size of conductors as the plans show. Use cable conforming to ANSI/UL 493.

C Construction

Furnish and install one cable to each LED luminaire from base of pole to the luminaire.

D Measurement

The department will measure Electrical Wire Lighting, 14-3 Grounded by the linear foot, acceptably completed, measured from the splice with the system lighting circuit in the pole base to the connection terminals in the luminaire.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.303	Electrical Wire Lighting 14-3 UF Grounded	LF

Payment is full compensation for furnishing and installing all materials complete the work.

122. Cut in Bicycle Loop Detection, Item SPV.0090.304.

A Description

This special provision describes the process for cutting bicycle loop slots, furnishing and installing bicycle loop detector wires, and sealing bicycle loop detectors in concrete.

B Materials

B.1 Loop Detector Wires

Furnish and install loop detector wires conforming to WisDOT standard 655.0800. Use 3 passes for each detection zone.

B.2 Sealant

Provide a flowable polyester sealant designed for traffic loop detectors. The sealant shall be flowable to allow the sealant to cover the loop within the slot, shall be rated for exterior use, shall be applicable to concrete and asphalt applications, and shall be gray in color.

C Construction

The contractor shall cut slots into the concrete to a width no larger than 0.25 inch wide, and no deeper than 3.00 inches deep. There shall be a minimum of 1.5" of depth from the top of the detection wire to the surface of the

The dimensions, and shape of the bicycle detection zone is shown below. Dimension B may be as narrow as 3' and as wide as 3.5' depending on site specific limitations.

The contractor shall apply the sealant as previously described per manufacturer's guidance, and finish flush with the surface, cleaning off any excess from the concrete.

D Measurement

The department will measure Cut in Bicycle Loop Detection, by the LF of the cut including all work necessary to cut slot, furnish and install loop detector wire, and seal loop detector wire. Note the LF of the cut will not match the LF of detection wire.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.304	Cut in Bicycle Loop Detection	LF

Payment is full compensation for cutting slots for bicycle loop detectors, furnishing and installing loop detector wire, and sealing bicycle loop detectors once detector wires have been installed, and loops verified working.

123. Boring and Jacking Casing Pipe Smooth Steel 12-Inch, Item SPV.0090.305.

A Description

This special provision describes boring and jacking smooth steel pipe as shown on the plans and as herein provided. Jack and bore the pipe under the Wisconsin & Southern Railroad (WSOR) as shown on the plans and as directed by the engineer.

B Materials

Furnish smooth steel pipe conforming to ASTM A-53-B with minimum yield strength of 35,000 psi, cathodically protected, and according to WSOR standards. Provide pipe with a bituminous outside coating and a minimum wall thickness for E-80 loading.

Provide an engineered stamped steel pipe design from a licensed engineer in the State of Wisconsin. Design shall conform to the American Railway Engineering and Maintenance-Of-Way Association (AREMA) manual and the elevations shown on the plans. The engineered stamped steel pipe design shall be submitted to the engineer for approval within 90 calendar days after receiving a notice to proceed for the project.

C Construction

Conform to the approved permits, if applicable, and requirements of the WSORR, including, but not limited to, submitting all required documents, temporary shoring, dewatering, track monitoring, and ground monitoring.

Bore and jack the pipe in place without disturbing the railroad tracks above the pipe or rail operations on the WSOR. Conform to WSOR flagging, temporary shoring, track monitoring, and ground monitoring requirements.

Bore and jack the pipe in place maintaining a 1-foot minimum clearance from the underground ATC high voltage line.

Bore pits shall be located such that the nearest edge of the pit is at least 25 feet from the centerline of the nearest track and outside of WSOR right of way.

Begin pipe boring and jacking operations within two days after excavating the bore and/or receiving pits.

All construction methods including ordering pipe, excavating the bore and receiving pits, setting the horizontal boring machine, boring and jacking of pipe, and removal of the boring machine shall be done according to the manufacturer's specifications.

The contractor assumes all risk as to the nature and peculiarities of materials to be excavated and is, at the contractor's own expense, responsible for all pumping, sheathing, bracing, and other work necessary and required to construct, protect, and complete the work.

Take care to ensure that the developed thrust pressures do not disturb existing utilities in or around the bore pit area.

Dispose of all excess soil material according to the standard specifications.

Backfill the pits within two days after pipe jacking has been completed in conformance with the requirements of standard spec 608.3.5.

Restore areas outside of the roadbed disturbed by boring and jacking to their original condition after jacking is completed by grading, shaping, temporary seeding, and mulching.

D Measurement

The department will measure Boring and Jacking Casing Pipe Smooth Steel 12-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.305	Boring and Jacking Casing Pipe Smooth Steel 12-Inch	LF

Payment is full compensation for providing the steel pipe design, providing smooth steel pipe, for boring and jacking the smooth steel pipe, for providing boring and jacking equipment, excavation, sheeting, shoring, bracing, drainage, dewatering, concrete, grouting, safety devices, backfilling, disposing of excess materials, submitting all required documents, track and ground monitoring; and for conforming to all requirements of the permits obtained from Wisconsin & Southern Railroad.

124. Fiber Optic Cable 12-Count, Item SPV.0090.306.

A Description

This special provision describes furnishing and installing 12-count fiber optic cable as specified in standard specs 651, 655, 670, and 678, as shown on the plans, and as provided hereinafter.

B Materials

Furnish single mode (SM), It armored, loose-tube 12-count fiber optic cable rated for outdoor use.

All fiber optic cable glass shall be supplied by the same manufacturer and shall be part of a fiber optic cable utilizing loose tube construction with the following properties:

Parameters	Single Mode
Type	Step Index
Code Diameter	8.3μm (nominal)
Cladding Diameter	125 ± 1.0μm
Core to Cladding Offset	≤0.8 μm
Coating Diameter	245 ± 10μm
Cladding Non-Circularity	≤1.0%
Proof Tensile Test	0.7 GPa
Attenuation	@1310nm ≤ 0.4 dB/km @1550nm ≤ 0.3 dB/km
Chromatic Dispersion Zero Dispersion	1310 ± nm (centered on a nominal operating wavelength of 1310)
Zero Dispersion Slope	≤0.092 ps/nm ² /km
Maximum Dispersion	≤ 2.8 ps/nm/km at 1285 - 1330 nm
Cut-Off Wavelength	1260 nm

C Construction

Follow all manufacturer's recommended installation procedures. Contact the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop,

(608) 266-9031 a minimum of seven (7) working days in advance to coordinate installing equipment in existing traffic signal cabinet.

D Measurement

The department will measure Fiber-Optic Cable 12-Count 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.0090.306	Fiber Optic Cable 12-Count	LF

Payment is full compensation for furnishing and installing the fiber optic cable.

125. Fiber Optic Cable 24-Count, Item SPV.0090.307.

A Description

This special provision describes furnishing and installing 24-count fiber optic cable as specified in standard specs 651, 655, 670, and 678, as shown on the plans, and as provided hereinafter.

B Materials

Furnish single mode (SM), It armored, loose-tube 24-count fiber optic cable rated for outdoor use.

All fiber optic cable glass shall be supplied by the same manufacturer and shall be part of a fiber optic cable utilizing loose tube construction with the following properties:

Parameters	Single Mode
Type	Step Index
Code Diameter	8.3μm (nominal)
Cladding Diameter	125 ± 1.0μm
Core to Cladding Offset	≤0.8 μm
Coating Diameter	245 ± 10μm
Cladding Non-Circularity	≤1.0%
Proof Tensile Test	0.7 GPa
Attenuation	@1310nm ≤ 0.4 dB/km @1550nm ≤ 0.3 dB/km
Chromatic Dispersion Zero Dispersion	1310 ± nm (centered on a nominal operating wavelength of 1310)
Zero Dispersion Slope	≤0.092 ps/nm ² /km
Maximum Dispersion	≤ 2.8 ps/nm/km at 1285 - 1330 nm
Cut-Off Wavelength	1260 nm

C Construction

Follow all manufacturer's recommended installation procedures. Contact the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop,

(608) 266-9031 a minimum of seven (7) working days in advance to coordinate installing equipment in existing traffic signal cabinet.

D Measurement

The department will measure Fiber-Optic Cable 24-Count 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.0090.307	Fiber Optic Cable 24-Count	LF

Payment is full compensation for furnishing and installing the fiber optic cable.

126. Flat Stone Blocks, Item SPV.0165.001.

A Description

This special provision describes work consisting of furnishing and placing Flat Stone Blocks in accordance with the requirements of the plans and these specifications.

B Materials

Provide lannon or buff colored stone for flat stone blocs of durable quarry dolomitic limestone of approved quality that are sound, hard, dense, resistant to the action of air and water, and free from seams, cracks, or other structural defects.

Provide stone pieces for cut-stone boulders that are rectangular in shape and approved by the engineer with dimensions as shown on the plans and meet the following minimum criteria:

- Snapped/natural on front, top and exposed sides
- Sawed or snapped on unexposed sides, backs, and bottom
- Water Absorption (ASTM C97): 0.66%
- Density (ASTM C97): 173 pcf
- Modulus of Rupture (ASTM C99): 1,450 psi
- Compressive Strength w/ Rift (ASTM C170): 20,000 psi
- Compressive Strength across Rift: 28,000 psi

All flat stone blocks shall come from the same quarry. If it is found that acceptable quantities of flat stone blocks cannot be obtained from the same quarry, request approval from the engineer to use multiple quarries.

Furnish a sample flat stone block from the quarry to be used prior to acquiring the total quantity shown in the plan for approval of the engineer. There shall be no compensation from the Department for furnishing the sample flat stone block.

C Construction

Properly trim and shape the bed for the flat stone blocks as shown on the plans.

Place flat stone blocks by any mechanical means that will produce a completed job within reasonable tolerances of the detail shown on the plans. Firmly set each cut stone boulder with no rocking or tipping. Limit hand work to the amount necessary to fill large voids or to correct segregated areas. Conform to the requirements of WisDOT standard specifications 645.3.1.7 for the placement of flats stone blocks over crushed aggregate and geotextile fabric - Type HR. Do not place flat stone blocks against or in contact with any concrete masonry surface prior to the expiration of the curing and protection period for the concrete.

Where storm sewer installations are required within the limits of the cut-stone boulder limits, coordinate the work schedule to ensure proper staging of operations.

D Measurement

The department will measure Flat Stone Blocks by the exposed 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.0165.001	Flat Stone Blocks	SF

Payment is full compensation for furnishing and placing the flat stone blocks, including backfilling and disposal of surplus material. The excavation, base aggregate, and geotextile fabric under the flat stone blocks will be paid for under separate bid items, respectively.

127. Directional Guidance Plates, Item SPV.0165.002.

A Description

This special provision describes providing and constructing directional guidance plates in concrete sidewalks as shown in the plans.

B Materials

Furnish wet-set, replaceable, cast iron directional guidance plates from Advantage Tactile, a Division of SureWerx, Elgin, IL, 60123, (844) 697-2920, www.advantagetactile.com, or Neenah Foundry, Neenah, WI 54956, (920) 725-7000, www.groupnei.com, or approved equal, conforming to the following requirements.

- Gray cast iron, ASTM A48, Class 30 minimum
- Uncoated natural patina
- Size 12" wide x 12" long, or 12" wide x 24" long
- Raised elongated bar spacing 3.0", bar length 10.75"
- ISO 23599 compliant
- Integral anchors

Castings shall be sound, free from pouring faults, cracks, blowholes and other defects. Furnish wedge tiles or radial tiles for use in curves, conforming to manufacturer requirements.

Submit manufacturer's literature describing products, installation procedures, and routine maintenance to the engineer. Submit shop drawings to the engineer prior to procuring the tiles.

Submit one sample plate that shows bar size and spacing to the engineer. Submit complete test reports to qualify that materials proposed for use are in compliance with requirements and meet or exceed the properties indicated in the specifications.

Manufacturer's Warranty: The plates shall be warranted in writing for a period of 10 years from date of substantial completion. The warranty shall include factory defects, breakage, and deformation.

C Construction

Coordinate with the engineer and tile manufacturer so that the surfaces being prepared and fabricated to receive the plates are constructed correctly and adequately for plate installation. Review manufacturer drawings and instructions with the engineer prior to the construction.

Embed (wet-set) directional guidance plates in plastic concrete according to manufacturer-recommended procedures. Do not install on hardened concrete. Stringline or use other engineer-approved methods to install the tiles in straight lines or arcs. The top level of the plate, not including the raised elongated bars, is to be flush with the adjacent concrete.

Do not field cut plates except as allowed by the manufacturer. Smooth the edges of field cuts.

Anchor the plates per manufacturer instructions.

D Measurement

The department will measure Directional Guidance Plates 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.0165.002	Directional Guidance Plates	SF

Payment is full compensation for providing and installing directional guidance plates of the specified configuration and color, including hardware and anchoring.

128. Steel Reinforced Concrete Sidewalk 7-Inch, Item SPV.0165.003.

A Description

This special provision describes constructing steel reinforced concrete sidewalk in accordance with standard spec 602 and as shown in the plans.

B Materials

Furnish materials in accordance with section 605.2 of the standard specification.

C Construction

Construct the sidewalk in accordance with section 605.3 of the standard specification.

D Measurement

The department will measure Steel Reinforced Concrete Sidewalk 7-Inch 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.0165.003	Steel Reinforced Concrete Sidewalk 7-Inch	SF

Payment is full compensation in accordance with section 602.5 including the steel reinforcement.

129. Stamping Asphalt, Item SPV.0165.004.

A Description

This special provision describes providing a textured and colored strip of asphalt to delineate the separate bicycle and pedestrian areas of the path north of Broom Street as shown on plans.

B Materials

The stamp used to create the texture in the asphalt surface shall be designed and manufactured for this purpose and shall be capable of producing a consistent surface pattern resembling brick or brick pavers without noticeable transverse joints along the continuous strip of texture. The width of the finished stamped pattern shall be 2-foot, plus or minus two (2) inches.

The substrate for the textured, colored surface will be new HMA pavement, conventionally constructed, measured and paid for separately under separate bid items.

The material used to color the pavement shall be a self-priming, acrylic water-based emulsion tinted with a highly concentrated water-based pigment dispersion, designed and manufactured for this purpose. The neutral base shall provide a highly durable surface, resistant to fuel and fortified with sand for slip resistance. The color will match the existing brick stamped color of the existing adjacent asphalt path. The clear coating applied to the finished colored surface shall be 100% acrylic clear drying emulsion specifically formulated as a protective coat for the colored surface to provide additional protection against ultra-violet rays, moisture, oil, gas and chemical attack.

C Construction

The stamp shall be applied to the hot HMA pavement, or pavement shall be reheated to the appropriate temperature in preparation for stamping. If there has been any use of the pavement prior to the stamping, it shall be thoroughly cleaned prior to this work. The stamp shall be accurately positioned laterally to match the existing brick stamping of the existing adjacent asphalt. Stamping shall be done with the engineer present to assure that the finished pattern conforms to the design and the surface remains sound and flush with adjacent pavement.

If texture is applied to existing pavement, it shall be reheated to the appropriate temperature with equipment designed for this purpose.

The color shall be applied to a clean surface, free of all loose materials, dirt grease and oil, by spray, brush or roller, provided the technique used achieves thorough coating of the textured area and no color on the adjacent pavement. Apply colored emulsion to the surface at a rate of 0.13 to 0.15 gallons per square yard, or as recommended by the manufacturer. Apply two complete coats of colored material to the entire textured area. Apply a single coat of clear protective material to the entire textured

area. Surface and ambient temperature shall be within the range recommended by the material manufacturer.

Any colored material unintentionally applied to the adjacent pavement shall be removed to the satisfaction of the engineer.

D Measurement

The department will measure Stamping Asphalt 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.0165.004	Stamping Asphalt	SF

Payment is full compensation for preparing the surface, including any necessary cleaning or reheating, for applying the stamp or die to create the texture, and for furnishing and applying all coats of colored emulsion and protective coat.

130. Pavement Support System, Item SPV.0165.005.

A Description

This provision describes providing and installing the Deeproot Silva Cells (www.deeproot.com) or GreenBlue Urban RootSpace (www.greenblue.com/na/.com) pavement support system or equal equivalent approved by the engineer according to the manufacturer's requirements. The objective of installing these cells is to support the concrete sidewalk and asphalt path of the Capital City Trail while keeping backfill material within the cells uncompacted to provide a better growing environment for adjacent proposed trees. The plans and details indicate limits and locations of the terrace support system, along with minimum depths and minimum surface square footage. The actual layout of the support system will be dependent on the manufacturer that is selected.

B Materials

B.1 Pavement Support System

Provide a pavement support system, per the manufacturer's requirements. This will include the use of a manufacturer approved geogrid around any areas where the cells are gapped due to utility structures. The geogrids shall be considered incidental to this bid item.

B.2 Base Layer

Provide Gradation No. 3 crushed aggregate in accordance with the City of Madison Standard Specifications.

B.4 Planting Soil

Furnish a soil mixture that consists of a mixture of imported topsoil, coarse sand, and compost. The mix shall be free of rocks, stumps, roots, brush, or other materials over 1 inch in diameter. No other materials shall be mixed with the soil that may be harmful to plant growth or prove a hindrance to planting or maintenance. The mix shall be designed to the following percentages by volume:

Soil Component	% Composition By Volume
Imported Topsoil Screened	40-45
Coarse Sand	40-50
Compost	10-15

B.4.1 Imported Topsoil

The imported topsoil shall be friable soil loam topsoil suitable for the germination of seeds and the support of vegetative growth meeting the following criteria:

1. Imported topsoil texture: USDA loam, sandy clay loam or sandy loam with clay content between 15 and 35 percent; a combined clay/silt content of no more than 60 percent; and sand between 35 and 65 percent.

B.4.2 Coarse Sand

The coarse sand used in the engineered soil mix shall meet the following requirements:

2. Coarse concrete sand, ASTM C33 Fine Aggregate, with a Fines Modulus Index of 2.8 and 3.2.
3. Coarse sand free of limestone, shale and slate particles. Manufactured Sand shall not be permitted.
4. Coarse sand shall have a pH lower than 7.4
5. 100% passing a No. 4 sieve
6. Provide coarse sand with the following particle size distribution:

<u>Sieve</u>	<u>Percent passing</u>
3/8 inch (9.5 mm)	100
No 4 (4.75 mm)	95 to 100
No 8 (2.36 mm)	80 to 100
No 16 (1.18 mm)	50 to 85
No 30 (0.60 mm)	25 to 60
No 50 (0.30 mm)	10 to 30
No 100 (0.15 mm)	2 to 10
No 200 (0.075 mm)	2 to 5

B.4.3 Compost

The compost shall be blended and ground leaf, wood and other plant-based material, composted for a minimum of 9 months and at temperatures sufficient to break down woody fibers, seeds and leaf structures, free of toxic material at levels that are harmful to plants or humans. Compost feed stock shall be yard waste trimmings, blended with other plants and or manure feed stock designed to produce compost high in fungal material.

The compost shall commercially prepared compost and meet US Compost Council STA/TMECC criteria or as modified in this Section for “

1. Imported topsoil texture: USDA loam, sandy clay loam or sandy loam with clay content between 15 and 35 percent; a combined clay/silt content of no more than 60 percent; and sand between 35 and 65 percent.

B.4.4 Submittals and Testing

A. Submit these to the engineer for review and acceptance not less than 30 days prior to the start of installation of materials and products specified in this Section.

1. Product Data: For each type of product, submit the manufacturer's product literature with technical data sufficient to demonstrate that the product meets these specifications.
 - a. For each compost product submit the manufacturer's certification that the compost meets the requirements for US Compost Council STA/TMECC criteria for “Compost as a Landscape Backfill Mix Component”
 - b. For coarse sand product submit the following analysis by a recognized laboratory:
 - 1) pH
 - 2) Manufacturer's Fines Modulus Index
 - 3) Particle size distribution (percent passing the following sieve sizes):

3/8 inch	(9.5 mm)
No 4	(4.75 mm)
No 8	(2.36 mm)
No 16	(1.18 mm)
No 30	(0.60 mm)
No 50	(0.30 mm)
No 100	(0.15 mm)
No 200	(0.075 mm)

2. Test and Evaluation Reports:

- a. Include analysis of bulk materials including soils and aggregates, by a recognized laboratory that demonstrates that the materials meet the specification requirements.
- b. Submit required soil test analysis report for each sample of imported topsoil and planting soil mix from an approved soil-testing laboratory as follows:
 - 1) Do not submit planting soil mixes, for testing until all topsoil, compost, and coarse sand have been approved.
 - 2) If tests fail to meet the specifications, obtain other sources of material, retest and resubmit until accepted by the engineer.
 - 3) All testing shall be performed following the requirements of *Methods of Soil Analysis*, The Soil Science Society of America.
 - 4) Provide a particle size analysis (percent dry weight) and USDA soil texture analysis. Soil testing of planting soil mixes shall also include USDA gradation distribution of gravel, coarse sand, medium sand, and fine sand in addition to silt and clay. Reports of particle size distribution shall use USDA size nomenclature and analysis protocols.
 - 5) Provide the following other soil properties:
 - a) pH and buffer pH.
 - b) Percent organic content by oven dried weight.
 - c) Soluble salt by electrical conductivity of a 1:2 soil water sample measured in Milliohm per cm.
 - 6) All soil testing will be at the expense of the Contractor.

3. Samples:

- a. Each sample shall be double bagged packaged in two plastic zip loc style bags. Each bag shall be clearly marked with the project name, date, contractor's name and telephone number, and product name.
- b. Samples of all imported topsoil, coarse sand, and compost shall be submitted at the same time as the particle size and physical analysis of that material.
- c. Samples will be reviewed for appearance only.
- d. Provide samples for the following products.
 - 1) One-gallon (3.79-liter) sample of imported topsoil.
 - 2) One-gallon (3.79-liter) sample of compost.
 - 3) One-gallon (3.79-liter) sample of coarse sand.
 - 4) One-gallon (3.79-liter) sample of the planting soil mix.

4. Qualification Statements:

- a. Soil supplier:
 - 1) Submit documentation of the planting soil supplier.
 - 2) Submit a list of completed projects of similar scope and scale demonstrating capabilities and experience of the planting soil supplier.

B.4 Geotextile Top Layer

Provide Geotextile Type SAS in accordance with section 645.2 of the standard specifications.

C Construction

C.1 Excavation

Excavate the pavement support area down to the subgrade of the support system in accordance with section 205 of the standard specifications.

C.2 Base Layer

Place Gradation No. 3 crushed aggregate at the base of the support system and compacted in accordance with the City of Madison Standard Specifications. The top of the Gradation No. 3 base layer shall be installed such that the top of the support system is at the appropriate elevation to accommodate the pavement base course layer and pavement surface as shown in the plans.

C.3 Pavement Support System

C.3.1 General Construction Requirements

Construct the cells of the pavement support system on top of the base layer and per the manufacturer's recommendation. Install the cells of the pavement support system as close to any utility structures as possible, but the cells shall be gapped around the structures as necessary, with a geogrid installed around the perimeter of the cells at the gap, and 1" Clear Stone shall be installed to bridge any larger gaps in the cell system.

C.3.2 Preinstallation Meeting

Prior to installation of the pavement support system and associated work, conduct a meeting with the pavement support system installer, manufacturer's technical representative, and engineer.

1. Provide at least 10 calendar days advance notice to participants prior to convening the preinstallation conference.
2. Introduce and provide a roster of individuals in attendance with contact information.
3. The preinstallation conference agenda will include, but is not limited to the review of:
 - a. Required submittals both completed and yet to be completed.
 - b. The sequence of installation and the construction schedule.
 - c. Coordination with other trades.
 - d. Details, materials, and methods of installation.
 - 1) Review requirements for substrate conditions, special details, if any, installation procedures.
 - 2) Installation layout, procedures, means and methods.

C.3.2 Submittals

Submit these to the engineer for review and acceptance not less than 30 days prior to start of installation of materials and products specified in this Section.

1. Product Data: For each type of product, submit the manufacturer's product literature with technical data sufficient to demonstrate that the product meets these specifications.
2. Samples:
 - a. One full size sample of an assembled pavement support system (copy of manufacturers brochure with images of product may be accepted in lieu of product sample).
 - b. Manufacturer's product data/specification sheet for geogrid.
 - c. Manufacturer's product data/specification sheet for geotextile.
4. Manufacturer's Report: Submit pavement support system manufacturer's letter of review and approval of the project, including drawings and specifications, addenda, clarifications and modifications, and for compliance with product installation requirements.
5. Qualification Statements:
 - a. Manufacturer:
 - 1) Submit list of completed projects demonstrating durability and longevity of in-place systems.
 - a) Include project name, location, and date of completion.

C.4 Planting Soil

Mix the planting soil offsite prior to placement within the pavement support system cells. Upon delivery of the planting soil to the site, protect planting soil from wind, rain, and washing that can erode soil or separate fines and coarse material, and contamination by chemicals, dust and debris that may be detrimental to plants or soil drainage. Confine delivered materials to neat piles in areas coordinated with the engineer. Cover stockpiles with plastic sheeting or fabric at the end of each workday.

Prior to installing the top deck of the cell frames, backfill the cell areas with planting soil. Do not place the planting soil when it is wet or frozen. The planting soil material shall till the entire cell and be placed in lifts and walked over to ensure 75-80% compaction. Once all planting soil material is in place, the top of the cells shall be set to accommodate the pavement base course layer and pavement surface as shown in the plans.

C.3 Geotextile Top Layer

After backfilling the pavement support system cells and installing the top deck of the cell frames, construct the Geotextile Type SAS on top of the support system to prevent any pavement base aggregate from entering the support system.

D Measurement

The department will measure Pavement Support System by the square foot, measured in the horizontal plane, 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.0165.005	Pavement Support System	SF

Payment is full compensation for providing shop drawings, soil testing, furnishing and installing all materials for the pavement support system, excavation, base layer, clear stone, planting soil, and geotextiles. The pavement and pavement base course on top of the pavement support system will be paid for separately.

131. Cut-Stone Boulders, Item SPV.0165.201.

A Description

This special provision describes work consisting of furnishing and placing cut-stone boulders in accordance with the requirements of the plans and these specifications.

B Materials

Provide lannon or buff colored stone for cut-stone boulders of durable quarry dolomitic limestone of approved quality that are sound, hard, dense, resistant to the action of air and water, and free from seams, cracks, or other structural defects.

Provide stone pieces for cut-stone boulders that are rectangular in shape and approved by the engineer with dimensions as shown on the plans and meet the following minimum criteria:

- Snapped/natural on front, top and exposed sides
- Sawed or snapped on unexposed sides, backs, and bottom
- Water Absorption (ASTM C97): 0.66%
- Density (ASTM C97): 173 pcf
- Modulus of Rupture (ASTM C99): 1,450 psi
- Compressive Strength w/ Rift (ASTM C170): 20,000 psi
- Compressive Strength across Rift: 28,000 psi

All cut-stone boulders shall come from the same quarry. If it is found that acceptable quantities of cut-stone boulders cannot be obtained from the same quarry, request approval from the engineer to use multiple quarries.

Furnish a sample cut-stone boulder from the quarry to be used prior to acquiring the total quantity shown in the plan for approval of the engineer. There shall be no compensation from the Department for furnishing the sample cut-stone boulder.

C Construction

Properly trim and shape the bed for the cut-stone boulders in a stair-step configuration as shown on the plans.

Cut-stone boulders shall be placed in an offset pattern such that vertical seams between stones do not horizontally align from one vertical layer of stone to the next.

Place cut-stone boulders by any mechanical means that will produce a completed job within reasonable tolerances of the typical section shown on the plans. Firmly set each cut stone boulder with no rocking or tipping providing a firm foundation for subsequent layers. Unless otherwise provided on the plans, provide

cut-stone boulders not less than 15 inches thick. Limit hand work to the amount necessary to fill large voids or to correct segregated areas. Conform to the requirements of WisDOT standard specifications Subsection 645.3.1.7 for the placement of cut-stone boulders over crushed aggregate and geotextile fabric - Type HR. Do not place cut-stone boulders against or in contact with any concrete masonry surface prior to the expiration of the curing and protection period for the concrete.

Cut-stone boulders shall be placed at the plan elevations and locations regardless of existing water levels. Dewatering and protection of the work area as required for proper installation is included in the cofferdam bid items for the adjacent bridge.

Where storm sewer installations are required within the limits of the cut-stone boulder limits, coordinate the work schedule to ensure proper staging of operations.

D Measurement

Cut-Stone Boulders will be measured by the exposed square foot in place of the completed work, and the quantity thereof to be paid for will be the summation of the exposed square foot projections onto a horizontal plane of the surface areas of such cut-stone boulders incorporated in the work in accordance with the contract. Only accepted work will be measured for payment and the computation of the quantity thereof will be based on the area within the limiting dimensions designated on the plans, in the contract, or established by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.201	Cut-Stone Boulders	SF

Payment is full compensation for excavation and preparation of the bed, including backfilling and disposal of surplus material; for furnishing and placing crushed aggregate; for furnishing and placing cut-stone boulders. The clear stone and geotextile fabric under the cut stone boulders will be paid for under separate bid items, respectively.

132. Temporary Wire Face Walls, Item SPV.0165.202.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Temporary Wire Faced Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, the system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall

system must comply with all pertinent requirements of this provision and be prepared in accordance with the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the contractor to submit design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design conforms to the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11-inch x 17-inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½-inch x 11-inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall conform to the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the Department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided in the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The value of the pullout resistance factor, F^* , used in design calculations shall be obtained from the AASHTO LRFD Figure 11.10.6.3.2-2 as appropriate to the proposed reinforcement type. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facings shall be designed in accordance with AASHTO 11.10.2.3. A fine metallic screen and a geotextile shall be used at the front face of the wall to retain the fines of the soil mass.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of the wall. All soil reinforcement layers shall be connected to wire facing panels. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 12 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life, as described in Chapter 14 of the WisDOT LRFD Bridge Manual and AASHTO LRFD Section 11.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing steel reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the wall to follow the general slope of the ground line. Frost depth shall not be considered.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Steel Components

Provide steel reinforcement that meets the following requirements:

Welded Wire Fabric Soil Reinforcement:

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration in accordance to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

Steel Reinforcing Strips and Tie Strips:

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM A572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A1011 Grade 50.

Welded Wire Fabric Facing Panels:

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration in accordance to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

Fasteners:

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

Connector Pins and Mat Bars:

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A82.

Metallic Screen:

Provide a steel metallic screen. The metallic screen should have an approximate opening of 1/4" and be made of 0.025" (minimum) gauge wire.

B.3.2 Geosynthetics

B.3.2.1 Geotextiles

Geotextile shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporated into the work.

B.3.2.2 Geogrids

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right-angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength (T_{al}) and nominal long-term connection strength, T_{alc} in accordance with AASHTO LRFD 11.10.6.4. Values for RF_{ID} , RF_{CR} , and RF_D shall be determined from product specific test results. Even with project-specific test results for temporary walls, RF_{ID} shall not be less than 1.10, RF_{CR} shall not be less than 1.20, and RF_D shall not be less than 1.10.

The Contractor shall provide a manufacturer's certificate that the Tult (MARV) of the supplied geogrid has been determined in accordance with ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations in accordance with AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100% of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

B.3.3 Backfill

Furnish and place backfill for wall as shown on the plans and as herein provided.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material that conforms to the following gradation requirements as per AASHTO T27:

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0-60
No. 200	0-15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements:

Test	Method	Value
pH	AASHTO T-289	5.0 – 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.

Test	Method	Value
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236 ^[1]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test), are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of these test results shall be less than 6 months old and performed by a certified independent laboratory.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall shall be in accordance to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

C.2 Compaction

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall face. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect welded wire facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place remaining courses in vertical or battered positions as shown on the contract plans.

The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstruction in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

When using a temporary wall for four (4) months or more or when the installation of a permanent wall facing will not occur for four (4) months or more after placement of any geotextile material, cover the exposed geotextile material in the wall as quickly as practical, to prevent damage caused by exposure to ultraviolet light.

C.3.2 Tolerances

The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.

For battered wire facing, the final deviation from the design batter shall be within ± 1 inch for each 10 feet of battered wall height.

C.4 Quality Management Program

C.4.1 Quality Management Program

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

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

C.4.3 Equipment

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory

Furnish nuclear gauges from the department's approved product list at:

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

C.4.4 Documentation

Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.1) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Training

C.4.6.1 General

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

C.4.6.2 Quality Verification (QV) Testing

The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

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

The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

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

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

If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.

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

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

C.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation

D Measurement

The department will measure the Temporary Wall Wire Faced Mechanically Stabilized Earth bid items by the square foot acceptably completed at locations the plans show, measured as the area of exposed face in the plane of the wall from the front face ground line of the wall to the retained grade. Temporary Walls used for staged construction in multiple configurations will be measured once based on the configuration with the largest area of exposed face.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.202	Temporary Wire Face Walls	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, performing compaction testing; and covering geotextile.

Payment limit for all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

133. Longitudinal Grooving Bridge Deck SPV.0165.203.

A Description

This special provision describes providing longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

B Materials

Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

C Construction

Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider; all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than 1/2-inch wide.

Construct longitudinal grooves with the following criteria:

Width (in)	Depth (in)	Spacing C-C (in)	Width Tolerance (in)	Depth Tolerance (in)	Spacing Tolerance (in)
1/8	3/16	3/4	0 to 1/16	± 1/16	± 1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

D Measurement

The department will measure Longitudinal Grooving Bridge Deck 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.0165.203	Longitudinal Grooving Bridge Deck	SF

Payment for Longitudinal Grooving Bridge Deck is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.

134. Enhanced Turbidity Barrier, Item SPV.0180.001.

A Description

This special provision describes providing and installing Enhanced Turbidity Barriers.

B Materials

Furnish materials conforming to standard specification 628.2.

C Construction

Delete standard specification 628.3.10 (2) and replace with the following:

Place barriers, before beginning adjacent construction, in a way that causes minimum disturbance of the lakebed and banks. Extend the barrier into the shoreline far enough to preclude washing out or erosion around the ends. Drive posts securely into the streambed at 4-foot to 6-foot intervals along the line of the barrier installation. Fasten the barrier to the posts and securely anchor the barrier load lines at the barrier ends and at 4-foot to 6-foot intervals between the barrier ends, unless the engineer directs otherwise. Provide additional anchoring if necessary to maintain the barrier location during construction operations. Install a continuous line of rock bags to anchor the barrier to the streambed to seal off the work area. The engineer may require additional rock bags to provide adequate performance. The Contractor, as required by permit under standard spec 107.19, shall provide and anchor both danger buoys and navigational markers. One day prior to removing the enhanced turbidity barrier, remove the rock bags from the base of the barrier.

Delete standard specification 628.3.10 (5).

D Measurement

The department will measure Enhanced Turbidity Barrier by the square yard acceptably completed. The department will make no allowance for portions of the turbidity barrier considered as part of the anchorages, required overlaps, or having a bottom flap greater than 48 inches.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.001	Enhanced Turbidity Barrier	SY

Payment is full compensation for furnishing, assembling, installing, maintaining, and removing the turbidity barrier, and for rock bags, buoys, navigational markers, anchors, and anchor ropes.

135. Impermeable Membrane, Item SPV.0180.002.

A Description

This special provision describes providing and installing an impermeable membrane of polyethylene sheeting in the biofilter basins.

B Materials

Furnish 30 mil polyethylene sheeting conforming to ASTM D4397.

C Construction

Before placing the pea gravel and engineered soil, anchor the polyethylene sheeting with galvanized stakes into the existing ground as shown in the plans. Place pea gravel and engineered soil and place polyethylene sheeting along the vertical side of the biofilter trench as the plans show.

Place the polyethylene sheeting in a way to minimize the number of overlaps in the trench. Overlap each segment by 18-inches where required.

D Measurement

The department will measure the Impermeable Membrane 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
SPV.0180.002	Impermeable Membrane	SY

Payment is full compensation for furnishing, cutting, and placing the polyethylene sheeting.

136. Shoreline Revetment Stone, Item SPV.0195.001.

A Description

This special provision describes work consisting of furnishing and placing shoreline revetment stone in accordance with the applicable provisions of standard spec 606 and with the requirements of the plans and these specifications.

B Materials

B.1 Armor Stone Size and Thickness Requirements

Furnish armor stone grade (primary cover layer and bedding layer) as shown on the contract drawings, and in conformance with standard spec 606.

Stone shall meet the following requirements:

- Primary Cover Layer size shall range from 10" to 36" with 50 percent of the material above 24".
- Stone shall be durable angular quarry stone with at least 2-fractured faces and approved by the Engineer prior to placing.
- Stone shall be sourced from quarries producing fractured stone.
- It shall be sound, hard, dense, resistant to the action of air and water, and free from seams, cracks or other structural defects.
- Stone shall be either Baraboo Quartzite, Waterloo Quartzite, or Dolomitic Limestone, or approved equal.

Rounded stones, field stone, or glacial till are not acceptable materials and are not in compliance with this specification.

If using limestone, it shall be sourced from a quarry mining the Fond du Lac formation and meet the following specifications:

- o Water Absorption (ASTM C97) 0.36%
- o Density (ASTM C97) 174 pcf
- o Modulus of Rupture (ASTM C99) 1450 psi

o Compressive Strength w/Rift (ASTM C170) 29,000 psi

o Compressive Strength across Rift 34,000 psi

- Bedding Layer size shall meet the following gradation requirements:

Percent By Weight Passing	
Sieve Size	Gradation No. 1 (3" Maximum)
3"	100
2 – 1/2"	90 - 100
1 – 1/2"	25 - 60
3/4"	0 – 20
3/8"	0 - 5

Place materials per the material size and thickness as shown in the table below in the work at the locations as shown on the plans. Stone shall be well graded and not exhibit gap grading or scalping from individual size ranges.

	Layer Stone (Inches)	Layer Thickness (Feet)
Primary Cover Layer	24	3.0
Bedding Layer	3	1.0

All stone shall have a minimum specific gravity of 2.6 based on water having a unit weight of 62.4 pounds per cubic foot.

The maximum aspect ratio (greatest dimension: least dimension) of any piece of armor stone weighing more than 500 pounds shall not be greater than 3:1 when measured on mutually perpendicular axes. The maximum aspect ratio of any piece of stone less than 500 pounds shall not be greater than 4.5:1 when measured on mutually perpendicular axes.

B.2 Material Sourcing

Submit the following information on the sources of stone that they intend to use for this project:

1. A map of the quarry showing the location, and extent of approved in-situ stone.
2. If COE test results were not previously obtained for the quarry, contractor shall submit complete geologic test results for the stone.
3. A listing of installations where the in-place service of the stone can be observed.
4. The Contractor shall verify that each supplier has the capability to produce the quantity of angular armor stone required of the quality, angularity, sizes, gradation or weights specified in the time frame allocated for this project.

By providing a bid for this project, the Contractor is providing verification that there is the capability to produce the quantity required of the quality, angularity, sizes, gradation or weights specified in the time frame allocated for this project.

All stone from a specific classification shall come from a single source. Separate sources may be used for each stone classification.

If it is found during the contract that acceptable materials and quantities of materials cannot be obtained by the Contractor from the original source(s), the Contractor may request approval to use alternate source(s) from approved suppliers. Obtaining and furnishing materials from the substitute source(s) shall be at no additional cost to the Department..

B.3 Material Quality

All stone shall be highly resistant to weathering and disintegration under freezing/thawing and wetting/drying conditions and shall be of a quality to ensure permanence of the structure in the climate in which it is to be used. The stone shall be durable, sound, free from detrimental cracks, seams and other

defects that tend to increase deterioration from natural causes or cause breakage in handling and/or placing. Stone with high argillaceous or shale content is more susceptible to weathering, abrasion, thin filter, close fracturing and other undesirable rock properties and will not be accepted.

The stone shall be free of damage because of blasting during production. Stones containing blast cracks that have the potential of causing more than 20 percent loss of weight of an individual stone, if the crack opens in service, are not acceptable without rework. Rework of such stones is the Contractor's option and shall consist of splitting the stone by jacking or other suitable method. The resulting stone pieces after splitting may be reevaluated for acceptance in accordance with the requirements of this specification section. Stones that have the potential of causing less than 20 percent loss of weight of an individual stone, if the crack opens in service, will be accepted if the potential loss will not cause the stone to be out of the gradation limits.

The material must be approved by the Engineer, prior to its production, for use on this project. This approval process may include any or all the following, as directed by the Engineer.

1. Test samples of the proposed stone shall be obtained by the Contractor at his own expense. Samples selected for testing shall be representative of material formations in the quarry to be used or being used on the project. The Engineer must be present and agree on the selection of all test samples prior to shipment. The Engineer may personally select all samples if he so elects. If specified sizes are in excess of 2,000 pounds, one ton samples will be taken.
2. Tests (requirements in parentheses) to which the material shall be subject to include the following; ASTM C127 Specific Gravity (as specified in this section 2.6 to 3.0); Los Angeles abrasion ASTM C535 (20 percent maximum loss with 500 revolutions); absorption ASTM C127 (maximum 2 percent water absorption); ASTM D5313 Wetting-Drying (2 percent maximum loss after 80 cycles); ASTM D5312 Freeze-Thaw (maximum 2% loss after 35 cycles); Petrographic Examination ASTM C295 (no deleterious materials allowed); ASTM D4992 Field Examination (no deleterious materials allowed).
3. The Contractor is responsible for allowing sufficient time for the testing to be completed such that there are no delays in the start of construction.
4. All costs incurred as a result of testing to verify material acceptability shall be the responsibility of the Contractor.

C Construction

C.1 Excavation and Placement

Construct the shoreline revetment stone in accordance with standard spec 606 and as herein described:

The bed for the coastal revetment stone shall be prepared by excavating and/or shaping the slopes and constructing the toe for shoreline revetment stone installation. Restore the surface of adjacent work following coastal revetment stone placement and dispose of surplus material.

Place all stone types in the locations and at the thicknesses shown without deviating from lines and grades shown to achieve the elevations and finished cross sections detailed in the drawings.

Primary Cover Layer Armor Stone:

Armor stones shall be individually placed. Stone shall be well distributed throughout the revetment mass and the finished revetment shall be free of pockets of small stone and clusters of larger stone. Final shaping of the slope shall be performed concurrently with the initial placement of the stone. Stones shall be randomly selected and set in contact with each other so that the interstices between adjacent stones shall be as small as the character of the stone will permit. The face of stone having the largest area shall be placed against the surface of the underlying material. Begin placement at the bottom of the slope. The heaviest stones shall be placed as toe stones. Stones shall be placed in a manner to avoid displacing underlying materials or placing undue impact force on underlying material that would cause the breaking of stones. The outermost layer of armor stones shall be individually placed with the long axis of the stone perpendicular to adjacent wave action. The equipment used in placing the stone shall be suitable for handling materials of the sizes required including the ability to place the stone over its final position before release and if necessary pick up and reposition the stone. Dragline buckets and skips shall not be used in placement. Moving stone by drifting or manipulating down the slope will not be permitted. The finished work shall be a well distributed mass, free of pockets of either smaller or larger stone, having a minimum of voids and with the maximum of interlocking of stones. It should be anticipated that rehandling of individual stones after initial placement will be required to achieve the above requirements. Stones

required to be placed over or adjacent to drains and subsurface pipes shall not be dropped, but gently lowered and placed in their final position by material handling equipment.

C.2 Quarry Operations

Quarry operations shall be conducted by the Contractor in a manner that will produce stone conforming to the requirements specified and may involve selective quarrying, handling, and loading as necessary. Blasting and handling of rock shall be controlled by the Contractor to produce rock of the size ranges and quality specified. Techniques such as the use of proper hole diameter, hole depth, hole angle, burden and spacing distances, types and distribution of explosives, delay interval and sequence, removal of muck piles between each shot, and special handling techniques will be required as necessary to produce the specified materials. All specifications of blasting operations shall be specifically designed so that the end product is not damaged from the blasting technique and that the stone is suitable for the intended purpose.

The Contractor shall submit in writing, to the Engineer, the anticipated production rates for the various types of stone materials. If the production rates change significantly such that delays are caused at the project site, the Engineer shall be notified immediately in writing with the reason for the delay.

C.3 Curing Stone

It has been found that some freshly quarried stone exhibits unloading type fracturing caused by the release of stored energy. This release of stored energy, and possible fracturing, must take place prior to shipment from the quarry to assure that placement of potential fractured stone does not occur. Therefore, all stone quarried from any source, shall be stockpiled at the quarry a minimum of 48 hours, prior to shipment to the project.

In addition to the curing noted above, stone from some quarries requires a longer curing time to release the subsurface water retained after quarrying. This sub-surface water or "quarry sap", can cause detrimental effects in freshly quarried stone. The conditions which determine this additional quarry time are dependent on the type of stone quarried, its physical properties and the time of the year the quarrying takes place. If the stone is quarried during freezing weather (25 degrees F. and below), the excess water retained in the rock could cause the rock to split. Each quarry the Contractor selects for use in the production of stone will be evaluated on an individual basis to determine applicable additional curing time, but the following general guidelines will apply.

1. For limestone or dolomite quarries:
 - a. When the ambient air temperature at the quarry reaches a 24-hour average of 25 degrees F. for three consecutive days, it will be herein after referred to as the cutoff day. April 15 will herein after be referred to as the start-up day. Stone must be blasted 2 weeks prior to the cutoff day or special procedures must be performed as follows:
 - i. Stone blasted after two weeks before the cutoff day will only be accepted if suitable guaranteed storage can be provided and ensured by the Contractor so that stone materials can be inspected for suitability after the startup day. Special stockpiling and handling techniques must be used to produce suitable stone after the quarry cutoff day or during freezing weather.
 - b. It is the responsibility of the Contractor to schedule and manage the stone production operation to ensure sufficient quantities of suitable stone throughout the project.
2. Igneous and metamorphic quarries:
 - a. There are no special quarrying or delivery restrictions based on weather, however, the requirements for stockpiling stone at the quarry for a minimum of 48 hours shall not be waived.

D Measurement

The department will measure the Shoreline Revetment Stone by the ton acceptably completed. The conversion factor for the acceptably completed in-place bedding layer and primary cover layers is 2 tons per cubic yard.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.001	Shoreline Revetment Stone	TON

Payment is full compensation for excavation and preparation of the bed, including backfilling and disposal of surplus material; for furnishing and placing armor stone; for restoring the site of the work.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1) HIGHWAY CONSTRUCTION SKILLS TRAINING (HCST) 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 include: 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).

The Wisconsin Department of Transportation OJT program was originally established in 1995. Highway Construction Skills Training (HCST) was previously known as Transportation Alliance for New Solutions (TrANS) and underwent a name change in early 2023. HCST is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities, and disadvantaged persons as laborers and apprentices in the highway skilled trades. Candidate preparation and contractor coordination services (OJT Supportive Services) are provided by contracted community-based organizations.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or advancement to apprenticeship of Highway Construction Skills Training (HCST) graduates and employing eligible trainees in qualifying trades will be made as follows:

- 1) **On-the-Job Training, Item ASP.1T0G, ASP 1 HCST Graduate.** At the rate of \$5.00 per hour on Federal-aid projects when HCST graduates are initially hired, or seasonally rehired, as unskilled laborers or equivalent.
Eligibility and Duration: To the employing contractor, for up to 2,000 hours or two years, whichever comes first from the point of initial hire as a HCST placement.
Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 18 HCST Graduate(s) be utilized for 9720 hours 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 HCST Program is subsequently entered into an apprenticeship contract in a qualifying trade.
Eligibility and Duration: To the employing contractor, for the length of time that the HCST graduate is in apprenticeship status.
Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 10 HCST Apprentice(s) be utilized for 3500 hours on this contract.
- 3) The maximum duration of reimbursement is two years as a HCST graduate plus time in apprentice status.
- 4) If a HCST 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 Department of Transportation Labor Development Specialist at the phone number listed below.

- 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 HCST 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 HCST 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 HCST 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 HCST 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 page 2 Dated January 2012 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 HCST graduate or a HCST apprentice. The compliance specialists utilize the information on the Certified Payrolls to track the hours accumulated by HCST Graduates and HCST 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. HCST 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. HCST 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 ensure 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-Office of Business Opportunity & Equity Compliance (OBOEC). A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT OBOEC - Labor Development, 141 NW Barstow Street, Suite 411, PO Box 798, Waukesha, WI 53187.

VI. PROGRAM CONTACTS

Marguerite (Maggie) Givings, Labor Development Specialist

Marguerite.Givings@dot.wi.gov | 608-789-7876

Deborah Seip, Labor Development Specialist

Deborah.Seip@dot.wi.gov | 262-548-8702

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) The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A, and Good Faith Effort Documentation (Form DT1202) will be submitted as described in Section 2.
- (2) Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment as described in Section 9.
- (3) 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.
- (4) 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) must be submitted at the time of bid (Tuesday) by all prime contractors.
- Attachments A OR quotes from all DBEs included in the Commitment must be submitted at bid (Tuesday) **OR**
- Within one-hour following bid submittal by ALL prime contractors via eSubmit (Tuesday).
- If only DBE quotes were submitted, all remaining signed Attachments A must be submitted within 24-hours of bid closing via eSubmit (Wednesday).
- If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) and supporting documentation must be submitted within 24-hours of bid closing (Wednesday) via eSubmit. [Instructions for eSubmit.](#)

****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.**

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.

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.

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).

Additional resources for demonstrating and tracking good faith effort can be found on the “Contracting with a DBE” webpage in the [ASP-3 and Good Faith Effort Guidance](#) section.

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://wisconsindot.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) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications

and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

- (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
- (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
 - i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
 - ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.
- (4) 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?
- (5) 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.
 - i. To ensure that the appropriate credit is assigned, follow the procedure below:
 - a. When DBE suppliers are contracted for bulk supply or commodity purchases, an invoice or bill-of-sale that includes names of the contractor and the DBE supplier should be submitted to the DBE Office via eSubmit (preferred during letting) or the DBE_Alert email box. The supply/commodity credit may be applied during the federal fiscal year (October- September) in which the purchase was made.
 - b. When the contractor intends to apply the credit to a particular project, submit a copy of the original invoice, documentation of the calculations for supplies/commodities to be used on the project, and an Attachment A. Indicate on the Attachment A:
 - c. This supply/commodity is in the prime's inventory or pre-paid in case of commodities
 - d. The full value of the original invoice submitted to the DBE Office, above in (1)
 - e. The amount of material or product used on this project
 - f. Fuel estimate listed on Attachment A will be recorded as a deduction from the full fuel purchase amount shown on the invoice
 - ii. DBE Office Process (Applies only to bulk purchases)
 - a. Supply/Commodity commitment is received
 - b. Engineer verifies amount listed on invoice and enters the full amount into spreadsheet
 - c. The amount of credit applied for each project is updated on the spreadsheet until the bulk purchase is exhausted
 - d. Engineer informs contractor when full amount of bulk purchase has been applied

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
- DBE truckers need to be added to the DBE commitment once. If the DBE trucker is on the initial commitment (DT1506/E1506) there is no requirement to submit another Attachment A for that trucker for that contract.

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.
- d. Offsite Hauling – when DBE truck will haul between a pit and plant or location other than the construction site associated with the commitment
 - (1) Indicate Offsite Hauling on Attachment A
 - (2) Discuss offsite hauling at weekly progress meetings with Project Engineer (PE)
 - (3) PE conducts spot checks of pits/plants to verify DBE truck is hauling and/or verifying hauling log
 - (4) Prime should be prepared to submit haul tickets, plant/pit tickets, timecards, and other pertinent documentation if requested by PE or DBE Office

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

A joint venture is an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest. If a DBE performs as a participant in a joint venture, the Department will only credit 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.

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.
 - (1) DBE credit may only be awarded to a non-DBE mentor firm for using its own protégé firm for less than one half of its goal on any contract; and
 - (2) Not award DBE credit to a non-DBE mentor firm for using its own protégé firm for more than every other contract performed by the protégé firm.
- c. A DBE protégé firm may be eligible for conditional NAICS code extension for training with the mentor. Request permission from the DBE Office- Certification area.
- d. 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 weeks prior to each Let)

1. Determine DBE subcontractor's interest in quoting
2. 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.
3. Assess their interest and experience in the road construction industry by asking questions such as:
 - Have you competed for other WisDOT contracts? Ratio of competed/to wins
 - Have you performed on any transportation industry contracts (locally or with other states)?
 - What the largest contract you've completed?
 - Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
 - Does this project fit into your schedule? Are you working on any contracts now?
 - Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
 - What region do you work in? Home base?
 - Which line items are you considering?
 - Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
 - 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 formatting requirement)

DBE Solicitation - [Month] [Day], [Year] WisDOT Bid Letting

Attention all DBEs. [Prime Contractor] is actively seeking your quote for the [Month][Day], [Year] Bid Letting. [Prime Contractor] is considering bidding on the projects listed on page 2 as a prime contractor. Please see page 2 for instructions and the sub-contractable opportunities for each proposal.

Does [Prime Contractor] accept quotes in areas we might self-perform? Yes, we do! We support this federal rule and (if needed) we consider areas we might self-perform an opportunity to provide in the field assistance and training if we award your quote.

Where can DBEs find the plans, specifications & addenda? Please visit [Prime Contractor's] plan room [LINK] or on WisDOT's Highway Construction Contract Information HCCI website: [Wisconsin Department of Transportation Highway Construction Contract Information \(wisconsindot.gov\)](https://wisconsindot.gov/HighwayConstructionContractInformation). This same website can be checked for the contract status.

What should your quote include? All the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should also note items that you are DBE certified to perform, tied items, and any special terms. Please use page 2 as your cover sheet for your quote.

Do you have a question regarding bonding, credit, insurance, equipment, or supplies/materials? We welcome all DBE questions! Please call [Prime Contractor] and ask to speak with [Contact]. [Prime Contractor] can provide basic information as well as a referral to a trusted industry partner for insurance and bonding needs.

When are quotes due?

[Month] [Day], [Year] at [Time]. We accept quotes via SBN, email, or fax. Please make every effort to have your quotes in by this time or earlier. Quality check your quote so it includes the correct letting date, project ID, proposal number, unit price and extension.

Who can DBEs contact for questions, information, clarification or for a quote evaluation? [Project Manager Name] [Phone] [Email]. If you are quoting [Prime Contractor] for the first time, we encourage you to come meet with us in person to discuss the project. Our office hours are 7:30 a.m. – 5:00 p.m. On bid day, we are in the office by 6:30 a.m.

Why partner with [Prime Contractor]?

DBE partnership is a core part of [Prime Contractor's] mission. Including DBEs at the beginning of each project is essential in the success of each project. We consider DBEs to be important industry partners who bring dedication and knowledge at various stages during construction. We are proud to be an industry leader with our DBE partnership. Your success as a DBE is our success.

Sample Contractor Solicitation Letter Page 2*(This sample is provided as a guide, not a formatting requirement)***REQUEST FOR QUOTE****[Prime Contractor]****Letting Date: [Month] [Day], [Year]****Project IDs: 1234-56-00 (Proposal #1) & 1234-01-78 (Proposal #6)**

Please check all that apply:

- ☐ Yes, we will be quoting the projects & 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 Contact: _____

DBE: _____

Phone: _____

Fax: _____

Email: _____

Please circle the proposals and items you will be quoting below and contact us with any questions

Proposal County	1 Dane County	6 Crawford County
Clearing & Grubbing	X	X
Dump Truck Hauling	X	X
Curb/Gutter/Sidewalk	X	
Erosion Control Items		X
Excavation	X	X
Pavement Marking		X
Traffic Control	X	
Sawing	X	X
QMP, Base		X
Pipe Underdrain	X	
Landscape		X
Beam Guard	X	
Electrical	X	
Signs/Posts/Markers		X
Survey/Staking		X

Again, please make every effort to have your quotes into our office by **time deadline** prior to the letting date.

Sample Contractor Solicitation Email - Simplified

(This sample is provided as a guide, not a formatting requirement)

ATTENTION DBEs

- [Prime Contractor] specializes in municipal projects in the XX Region(s)
- We have successfully competed for and completed XX WisDOT projects over the past XX years
- Consider [Prime Contractor] your partner on WisDOT Projects

[Prime Contractor] is seeking your subcontractor quote for the XX/XX/20XX WisDOT bid letting on the below projects:

Project	Proposal	County	Region
1234-56-00	2	Dane	SW
1234-01-78	6	Crawford	SW

- Please review the attachments **[attach Solicitation Letter]** and respond with your intent to quote (or not) along with the work items you are interested in performing and respond via fax or email by date. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Please include labor, equipment, material, and related bonding or insurance.
- If you have any questions regarding bonding, credit, insurance, equipment and/or materials/supplies, please feel free to call [Prime Contractor] and ask for [Contact]. **(Include if your company is willing to answer these types of DBE questions)**
- Plans and Specifications can be found: **WisDOT HCCI Website: List webpage where plans are located**
- If you do choose to quote, please make every effort to have your quote into our office by time and date. Make sure the correct letting date, project number, unit price and extension are included in your quote.
- Should you have questions regarding the mentioned project, please call our office at (414) 555-5555 and we will direct you to the correct estimator/project manager.
Our office hours are 7:30 a.m. - 5:00 p.m.

Thank you – we look forward to working with your company on this project!

Prime Contractor
Project Manager
Direct: 414-555-5555
Cell: 414-555-5556

Sample Contractor Solicitation Email to **non-DBE** WisDOT Subcontractors - Simplified

(This sample is provided as a guide, not a formatting requirement)

ATTENTION WisDOT SUBCONTRACTORS

[Prime Contractor] is considering bidding on the below projects for the XX/XX/20XX WisDOT Bid Letting:

Project	Proposal	County	Region	DBE Goal
1234-56-00	2	Dodge	SW	6.00%
1234-01-78	11	Adams	NC	3.00%
1234-00-99	20	Buffalo	NW	5.00%
1234-00-98	33	Portage	NC	6.00%

The above projects have DBE goals and [Prime Contractor] is committed to DBE inclusion with every project. As such, we are requesting:

- All WisDOT Subcontractors to **solicit and utilize** DBEs in your quotes.
- DBE participation can be achieved through purchasing materials from DBE suppliers, using DBE subcontractors and/or DBE trucking firms or any combination of these.
- If there is an opportunity to untie an item in your quote so a DBE can be utilized, please look for those opportunities as well.
- Your quote will be evaluated based on the amount of DBE participation your company is able to provide when compared to other quotes for the same work.

If you do choose to quote, please make every effort to have your quote into our office by **time and date**. Please submit all quotes to [Email]. Make sure the correct letting date, project number, unit price and extension are included in your quote.

Should you have questions regarding the mentioned project, the Project Manager contact is: [Name] [Phone Number] [Email]

Thank you for utilizing DBEs who are trusted industry partners with WisDOT projects.

Prime Contractor
Project Manager

Direct: 414-555-5555
Cell: 414-555-5556

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 help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. The DBE will provide free SBN accounts to DBEs when requested. Use DBE_Alert@dot.wi.gov to request an account. **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.

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 – Initial Review

DT1202	Examples	Rating	OBOEC Feedback
Solicitation Documentation	Identify all reasonable and available activities performed to solicit the interest of all certified DBEs who have capacity and ability to perform work on the project. <i>Such as: Updated solicitation letter and email, timely solicitation, and follow-up, and/or utilized various methods to communicate solicitation (ex: letter, email, publication, posting and/or website)</i>		
Selected Work Items Documentation	All work items are broken out into economically feasible units to facilitate DBE participation. <i>Such as: Selected work items are specific to each proposal and clearly identified in all solicitation(s)</i>		
Documentation of Project Information provided to Interested DBEs	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. <i>Such as: Project information is clearly identified in all solicitation(s)</i>		
Documentation of Negotiation with Interested DBEs	Provide sufficient evidence demonstrating that good faith negotiations took place during the bid letting. <i>Such as: Documented attempts with DBEs or on behalf of DBEs to increase DBE participation</i>		
Documentation of Sound Reason for Rejecting DBEs	Provide sufficient evidence demonstrating that DBEs are rejected for sound reasons. <i>Such as: Detailed and thoughtful analysis that considers both the percentage and dollar difference when rejecting a DBE including past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, and other tangible factors.</i>		
Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials	Documented assistance in both solicitation(s) and outreach to DBEs.		
Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support	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 participation in activities that support DBE business development. <i>Such as: Variety of activities that translate into meaningful DBE participation</i>		
Documentation of other GFE activities	<i>Such as: Used DT1202 Excel Workbook, Diversity & Inclusion company policy, Mentor-Protégé participant, awarded neutral DBE after bid submission, included company GFE overview/strategy information and/or company website highlights DBE opportunities and participation</i>		
Overall Demonstration of GFE			

GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review

Documentation provided by bidder is evaluated and rated on the rubric. Bidders should include activities characterized by the following types of effort:

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

GFE EVALUATION – PHASE 2 – Team Review**GFE Team completes:**

- Review of activities included on the rubric
- Review of the intent to award and sound reasoning 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 constitute final GFE determination

Rating Scale:

- **GFE Approval:**
Bona Fide = 6 or more categories color coded green.
Genuine effort characterized by sincere and earnest activities – “Solicitation” and “Sound Reasoning” must be green
- **GFE Approval:**
Sufficient = 5 or more categories color coded green or yellow
Adequate effort documented with a variety of quality activities – “Solicitation” and “Sound Reasoning” must be green or yellow
- **GFE Denial:**
Pro Forma efforts = 4 or less categories color coded green or yellow. Perfunctory effort characterized by routine or superficial activities

Green = Exceeds expectations

Yellow = Meets expectations

Red = Areas in need of attention and/or absence of documentation

See OBOEC Rubric Analysis Feedback

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

GFE RUBRIC ANALYSIS	
OBOEC DECISION	APPROVAL OR DENIAL
Prime Contractor	
Proposal	
Project	
Bid Letting	
DBE Goal Amount	
DBE Goal Amount Achieved	
Bid Analysis	
Goal %	Achieved %
Apparent Low Bidder	%
Bidder B	
Bidder C	
Average of OTHER Bidders (Not including Apparent Low Bidder)	
DBE Quotes Received	
DBE Quotes Awarded	
DBE Quote(s) Rejected	Rejected Quote Analysis
DBE Quote(s) Awarded	Awarded DBE Amount

Appendix E

Good Faith Effort Best Practices

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE ‘training session’ clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.

Appendix 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

Wisconsin Department of Transportation

Proposal #

County:

DBE Goal Achieved:

0.00 %

[illegible]

\$	0.00	\$	0.00
----	------	----	------

Prime Representative Signature & Date

1

**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

☐ Off site Hauling

**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: <https://wisconsindot.gov/pages/global-footer/formdocs/default.aspx>

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.

Acceptance and Final Payment

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work.

ADDITIONAL SPECIAL PROVISIONS 5 FUEL COST ADJUSTMENT

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is \$2.55 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

- (1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.
- (2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.
- (3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.
- (4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \frac{CFI}{BFI} - 1 \times Q \times BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

Additional Special Provision 6 (ASP-6)

Modifications to the standard specifications

Make the following revisions to the standard specifications.

107 Legal Relations and Responsibility to the Public

Add subsection 107.27 effective with the November 2024 letting.

107.27 Drones or Unmanned Aircraft Systems (UAS)

107.27.1 Licensing and Compliance

- (1) Obtain and possess the necessary Federal Aviation Administration (FAA) licenses and certifications to operate drones commercially (<https://www.faa.gov/uas>).
- (2) Comply with all FAA regulations, airspace restrictions, and local laws. Operators of small drones that are less than 55 pounds for work or business must follow all requirements as listed in Title 14, Chapter 1, Subchapter F, Part 107 of the Code of Federal Regulations (14 CFR) and obtain a remote pilot certificate (https://www.faa.gov/uas/commercial_operators).
- (3) Comply with Wisconsin State Statute 942.10. Limit operations to the specific approved purpose and employ reasonable precautions to avoid capturing images of the public except those that are incidental to the project.
- (4) Provide copies of waivers required for specific project conditions to the engineer prior to any flight.

107.27.2 Flight Approval, Safety, and Incident Reporting

- (1) Submit information in 107.27.2(2) to obtain written drone flight approval from the engineer at least 3 business days prior to operating a drone within the right-of-way. Do not operate a drone within the right-of-way unless approved by the engineer.
- (2) Drone flight application for review and approval must include:
 - UAS pilot information and qualifications, images of certification
 - UAS drone information and FAA tail numbers
 - Max/ Min allowable flight parameters (weather)
 - Specifics of flight mission: capture scope
 - Estimated flight duration
 - Pre-flight checklist
 - Site-specific parameters
 - Notification protocols - Federal/Local/Agency/Owner/Responsible in Charge
 - Confirmation and verification of approved operators and hardware
 - Flight plan map diagram (including launch and landing location)
 - FAA-Airspace flight map classification and confirmation with graphics
 - UAS incident management protocol
- (3) If contractor is requesting multiple types of the same flight, a simplified request can be submitted listing weekly flight plan.
- (4) Safety measures must include but are not limited to:
 - Regular training and updates on drone regulations are required and must be provided upon request.
 - Drones must be operated in accordance with safety guidelines, including maintaining a safe distance from people, structures, vehicles, etc.
 - Conduct a pre-flight safety assessment, considering weather conditions, airspace restrictions, and potential hazards.
 - Emergency procedures (e.g., drone malfunction, loss of control) must be documented and followed.
 - All incidents must be reported to the engineer.
- (5) If the drone has an incident during flight, report the following to the engineer:
 - Incident background and details.
 - FAA (14 CFR 107.9) and NTSB (49 CFR 870) notification protocol.
 - Contractor internal notification protocol.

107.27.3 Insurance Requirements

- (1) Maintain drone liability insurance with the following limits.
 1. For drones weighing 10 pounds or less, a liability policy with a minimum limit of \$1,000,000.00 is required.

2. For drones weighing more than 10 pounds and less than or equal to 20 pounds, a liability policy with a minimum limit of \$2,000,000.00 is required.
3. For drones weighing more than 20 pounds, notify engineer and department will determine appropriate liability policy coverage levels based on size, use, location, and other risk factors.

646 Pavement Markings

646.3.2.4 Black Epoxy

Replace paragraph (1) with the following effective with the November 2024 letting.

- (1) Apply black epoxy in a grooved slot directly after the white marking. Apply epoxy at a wet mil thickness of 20. Apply black aggregate at or exceeding 25 pounds per gallon of epoxy. Do not apply glass beads to black epoxy.

ERRATA

204.3.1.3 Salvaging or Disposal of Materials

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Dispose of concrete, stone, brick, and other material not designated for salvage as specified for disposing of materials under 203.3.5.

204.3.2.3 Removing Buildings

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Buildings removed and materials resulting from building removal become the contractor's property unless the contract specifies otherwise. Dispose of unclaimed and removed material as specified for disposing of materials in 203.3.5.

335.3.2 Rubblizing

Replace paragraph (6) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (6) Remove reinforcing steel exposed at the surface by cutting below the surface and disposing of the steel as specified in 203.3.5. Do not remove unexposed reinforcing steel.

335.3.3 Compacting

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Remove loose asphaltic patching material, joint fillers, expansion material, or other similar materials from the compacted surface. Also remove pavement or patches that have a maximum dimension greater than or equal to 6 inches that are either not well seated or projecting more than one inch. Dispose of removed material as specified in 203.3.5.

526.3.4 Construction, Backfilling, Inspection and Maintenance

Replace paragraph (3) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.5. Contractor-furnished materials remain the contractor's property upon removal.

602.3.6 Concrete Rumble Strips

Replace paragraph (5) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (5) At the end of each workday, move equipment and material out of the clear zone and sweep or vacuum the traveled way pavement and shoulder areas. Sweep away or vacuum up milling debris before opening adjacent lanes to traffic. Dispose of waste material as specified in 203.3.5; do not place on the finished shoulder surface.

604.2 Materials

Replace paragraph (1) with the following information to remove line and link for crushed aggregate effective with the November 2024 letting. The crushed aggregate gradation information for slope paving is now found in 604.2(3).

- (1) Furnish materials conforming to the following:

Water.....	501.2
Select crushed material.....	312.2
Concrete.....	501
Reinforcement.....	505
Expansion joint filler	415.2.3
Asphaltic materials	455.2

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. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to 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) for projects with a LET date on or before December 2024 and AASHTOWare Project Civil Rights and Labor (AWP CRL) for projects with a LET date on or after January 2025 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 or AWP CRL. 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 or AWP CRL 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, via the online AWP Knowledge Base, or by telephone. to schedule CRCS specific training. The AWP Knowledge Base is at: <https://awpkb.dot.wi.gov/>
- (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) For firms wishing to export payroll/labor data from their computer system, have their payroll coordinator contact:
 - For CRCS: Paul Ndon at paul.ndon@dot.wi.gov. Information about exporting payroll/labor data. Not every contractor's payroll system can produce 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>
 - For AWP CRL: Contact AWP Support at awpsupport@dot.wi.gov. Additional information can be found in the AWP Knowledge Base at <https://awpkb.dot.wi.gov/Content/crl/Payrolls-PrimesAndSubs/PayrollXMLFileCreationProcess.htm>

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated 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. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

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, United States Code, as required in 23 CFR 633.102(b) (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). 23 CFR 633.102(e).

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. 23 CFR 633.102(e).

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) in accordance with 23 CFR 633.102. 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 solicitation-for-bids or request-for-proposals 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). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A 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 Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 230, Subpart A, 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 (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 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 Part 35 and 29 CFR Part 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. 23 CFR 230.409 (g)(4) & (5).

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, sexual orientation, gender identity, 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 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 or other knowledgeable company official.

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, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure 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. 23 CFR 230.409. 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 thereunder. 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, sexual orientation, gender identity, 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, 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. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

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 more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, 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, sexual orientation, gender identity, 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), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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 (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), 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 basic hourly 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. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. 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 classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must 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. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must 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 be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate 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 used 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) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) 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 will be sent by the contracting officer by email to DBAconformance@dol.gov. 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.

(4) 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 will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The 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.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its procurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) Information required. Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) Additional records relating to fringe benefits. Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must 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.

(4) Additional records relating to apprenticeship. Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. Certified payroll requirements (1) Frequency and method of submission. The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) Information required. The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDL/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) Statement of Compliance. Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working 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 [29 CFR part 3](#); and

(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(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) Use of Optional Form WH-347. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform 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 (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. 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. 23 CFR 230.111(e)(2). 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 journeyworkers 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 as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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 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 [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), 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 watchpersons 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. 29 CFR 5.5.

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 and interest from the date of the underpayment. 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 watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* 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.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, 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 that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. **Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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" in paragraph 1 of Section VI 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: (based on longstanding interpretation)

- (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. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), 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. Pursuant to 23 CFR 635.116(c), 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. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

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 Part 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. 23 CFR 635.108.

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 Part 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). 29 CFR 1926.10.

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 Part 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 11, 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 (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

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. 2 CFR 180.220 and 1200.220.

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. 2 CFR 180.320.

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. 2 CFR 180.325.

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. 2 CFR 180.345 and 180.350.

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, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient 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 recipient or subrecipient of Federal funds (such as the prime or general contract). "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. 2 CFR 180.330.

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. 2 CFR 180.220 and 180.300.

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. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. 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 System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

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 CFR 180.325.

* * * * *

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 CFR 180.335;.

(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, 2 CFR 180.800;

(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, 2 CFR 180.700 and 180.800; 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. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. 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). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant 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. 2 CFR 180.365.

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, Subpart I, 180.900 – 180.1020, 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 recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "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 recipient or subrecipient 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. 2 CFR 1200.220 and 1200.332.

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. 2 CFR 180.220 and 1200.220.

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 System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should 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 Part 20, App. A.

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.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor 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. 46 CFR 381.7.

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 Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

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).

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.

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.

BUY AMERICA PROVISION

Buy America (as documented in [88 FR 57750 \(2 CFR part 184 and 200\)](#) from the Office of Management and Budget: [Federal Register: Guidance for Grants and Agreements](#)) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

1. Iron and Steel

All iron and steel manufacturing and coating processes (from the initial melting stage through the application of coatings) 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 the iron and steel manufacturing and coating processes Buy America 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.

2. Manufactured Product

All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983 and are currently exempt from Buy America.

3. Construction Material

All construction materials (as defined in [88 FR 57750 \(2 CFR part 184 and 200\)](#) and as referenced in CMM 228.5) must comply with Buy America. All manufacturing process of construction materials must occur in the United States.

[88 FR 55817 \(DOT-OST-2022-0124\)](#) allows a limited waiver of Buy America requirements for de minimis costs and small grants.

- The Total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project¹; or
- The total amount of Federal financial assistance applied to the project, through awards or subaward, is below \$500,000²

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

<https://wisconsindot.gov/rdw/cmm/cm-02-28.pdf>

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: <https://wisconsindot.gov/Documents/formdocs/dt4567.docx>

Attach a list of iron or steel and construction material exemptions and their associated costs to the certification form using the Buy America Exemption Tracking Tool, available at:

<https://wisconsindot.gov/hccidocs/contracting-info/buy-america-exemption-tracking-tool.xlsx>

¹ The de minimis public interest waiver does not apply to iron and steel subject to the requirements of 23 U.S.C. 313 on financial assistant administered by FHWA. The de minimis threshold in 23 CFR 635.410(b)(4) continues to apply for iron and steel.

² The small grant portion of the waiver does not apply to iron, steel, and manufactured goods subject to the requirements of 49 U.S.C. 22905(a).

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

Superseded General Decision Number: WI20240010

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: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 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 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

1	02/07/2025
2	02/21/2025
3	05/23/2025
4	06/06/2025
5	06/27/2025

BRWI0001-002 06/03/2024

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEALEAU, AND
VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.86	27.00

BRWI0002-002 06/01/2024

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 46.60	27.01

BRWI0002-005 06/01/2024

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...	\$ 41.62	27.03

BRWI0003-002 06/01/2024

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41

BRWI0004-002 06/01/2024

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 43.21	27.90

BRWI0006-002 06/01/2024

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,
ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.33	27.53

BRWI0007-002 06/01/2024

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.34	28.15

BRWI0008-002 06/01/2024

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 46.16	27.33

BRWI0011-002 06/01/2024

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41

BRWI0019-002 06/01/2024

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.18	27.68

BRWI0034-002 06/01/2024

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.17	27.32

CARP0068-011 05/05/2025

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.....	\$ 47.57	31.17
PILEDRIVERMAN.....	\$ 47.71	30.98

CARP0231-002 06/01/2025

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 47.73	31.52

CARP0310-002 06/03/2024

ADAMS, ASHLAND, BAYFIELD (Eastern 2/3), FOREST, IRON, JUNEAU,
LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, PRICE, SHAWANO
(Western Portion of the County), TAYLOR, VILAS, AND WOOD
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

CARP0314-001 06/02/2025		

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, JEFFERSON,
LAFAYETTE, RICHLAND, ROCK, SAUK, AND WALWORTH COUNTIES

	Rates	Fringes
Carpenter.....	\$ 42.45	28.78
Piledrivermen.....	\$ 44.45	28.78

CARP0361-004 05/05/2025		

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 46.82	31.92

CARP0731-002 06/03/2024		

CALUMET (Eastern Portion of the County), FOND DU LAC (Eastern
Portion of the County), MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

CARP0955-002 06/03/2024		

CALUMET (Western Portion of the County), FOND DU LAC (Western
Portion of the County), GREEN LAKE, MARQUETTE, OUTAGAMIE,
WAUPACA, WAUSHARA, AND WINNEBAGO

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIIVER.....	\$ 42.44	28.44

CARP1056-002 06/01/2024		

ADAMS, ASHLAND, BARRON, BAYFIELD , BROWN, BUFFALO, BURNETT
,CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE,
DOOR, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU,
KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC,
MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO,
ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwy. 29 & 65), POLK (E.
of Hwy. 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK,
SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX (E. of Hwy. 65),
TAYLOR, TREMPLEALEAU, VERNON, VILAS, WALWORTH, WASHBURN,

WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 42.00	28.85

CARP1074-002 06/03/2024		

BARRON, BURNETT, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, PEPIN,
PIERCE (E. of Hwy. 29 & 65), POLK (E. of Hwy. 35, 48 & 65),
RUSK, SAWYER, ST. CROIX (E. of Hwy. 65), AND WASHBURN

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44

CARP1143-002 06/03/2024		

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEALEAU AND
VERNON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44

CARP1146-002 06/03/2024		

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, MENOMINEE, OCONTO,
AND SHAWANO (Western Portion of the County) COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44

CARP2337-009 06/03/2024		

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA

	Rates	Fringes
PILEDRIVERMAN.....	\$ 42.21	34.07

ELEC0014-002 05/26/2024		

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, TREMPLEALEAU, VERNON, AND WASHBURN
COUNTIES

	Rates	Fringes
Electricians:.....	\$ 42.73	23.99

* ELEC0014-007 05/25/2025		

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 31.17	20.08

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 06/01/2023

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 46.05	30%+13.15

ELEC0158-002 06/01/2024

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.....	\$ 40.25	29.75%+11.17

ELEC0159-003 05/26/2024

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.....	\$ 48.55	25.91

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 06/02/2024

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 46.23	69.19%

ELEC0388-002 06/01/2024		

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:.....	\$ 40.19	26%+12.45

ELEC0430-002 06/01/2024		

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 48.50	26.25

* ELEC0494-005 06/01/2025		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 50.86	28.26

* ELEC0494-006 06/01/2025		

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 45.20	25.27

ELEC0494-013 05/26/2024		

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 36.03	18.87
Technician.....	\$ 36.03	18.87

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music

systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

ELEC0577-003 05/26/2024

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:.....	\$ 40.00	22.69

ELEC0890-003 06/01/2024

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 43.65	25.95%+12.26

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 06/01/2025

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 48.37	30.30
Group 2.....	\$ 47.87	30.30
Group 3.....	\$ 46.77	30.30
Group 4.....	\$ 46.51	30.30
Group 5.....	\$ 46.22	30.30
Group 6.....	\$ 40.32	30.30

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 06/01/2025

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC,
MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO
COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 44.66	33.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor
Day, Thanksgiving Day & Christmas Day.

* IRON0008-003 06/01/2025

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3),
WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 47.52	33.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor
Day, Thanksgiving Day & Christmas Day.

* IRON0383-001 06/01/2025

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.....	\$ 44.00	32.66

IRON0498-005 06/01/2024

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 46.59	48.80

IRON0512-008 04/28/2024

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,
PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 44.85	35.22

IRON0512-021 04/28/2024

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 41.19	34.68

LAB00113-002 06/03/2024		

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 35.61	25.01
Group 2.....	\$ 35.76	25.01
Group 3.....	\$ 35.96	25.01
Group 4.....	\$ 36.11	25.01
Group 5.....	\$ 36.26	25.01
Group 6.....	\$ 32.10	25.01

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 06/03/2024		

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.86	25.01
Group 2.....	\$ 34.96	25.01
Group 3.....	\$ 35.01	25.01
Group 4.....	\$ 35.21	25.01
Group 5.....	\$ 35.06	25.01
Group 6.....	\$ 31.95	25.01

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 06/03/2024

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.67	25.01
Group 2.....	\$ 34.82	25.01
Group 3.....	\$ 35.02	25.01
Group 4.....	\$ 34.99	25.01
Group 5.....	\$ 35.32	25.01
Group 6.....	\$ 31.81	25.01

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 06/03/2024

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.....	\$ 40.57	19.45
Group 2.....	\$ 40.67	19.45
Group 3.....	\$ 40.72	19.45
Group 4.....	\$ 40.92	19.45
Group 5.....	\$ 40.77	19.45
Group 6.....	\$ 37.20	19.45

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 06/03/2024

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 40.85	19.45
Group 2.....	\$ 40.95	19.45
Group 3.....	\$ 41.00	19.45
Group 4.....	\$ 41.20	19.45
Group 5.....	\$ 41.05	19.45
Group 6.....	\$ 37.20	19.45

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 05/05/2025

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller.....	\$ 38.17	27.26
Spray, Sandblast, Steel....	\$ 38.77	27.26
Repaint:		
Brush, Roller.....	\$ 36.67	27.26
Spray, Sandblast, Steel....	\$ 37.27	27.26

PAIN0108-002 06/01/2024

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller.....	\$ 42.04	22.95
Spray & Sandblast.....	\$ 43.04	22.95

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 06/01/2025

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 43.19	24.87
Brush.....	\$ 42.44	24.87
Spray & Sandblast.....	\$ 43.19	24.87

* PAIN0802-002 06/01/2025

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,
ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 37.65	21.17

PREMIUM PAY:
Structural Steel, Spray, Bridges = \$1.00 additional per
hour.

* PAIN0802-003 06/01/2025

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.....	\$ 37.65	21.17

PAIN0934-001 06/01/2024

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush.....	\$ 38.67	26.32
Spray.....	\$ 39.67	26.32
Structural Steel.....	\$ 38.82	26.32

PAIN1011-002 06/02/2024

FLORENCE COUNTY

	Rates	Fringes
Painters:.....	\$ 29.95	15.89

PLAS0599-002 06/01/2024

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area A.....	\$ 47.17	30.35
Area B.....	\$ 41.62	26.34
Area C.....	\$ 42.74	25.91
Area D.....	\$ 43.16	25.49

Area E.....	\$ 42.25	26.39
Area F.....	\$ 38.98	29.67

AREA DESCRIPTIONS

AREA A: ASHLAND, BURNETT, BAYFIELD, DOUGLAS, IRON, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA B: ADAMS, BARRON, BROWN, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, 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 C: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE, MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND VERNON COUNTIES

AREA D: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA E: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA F: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2025

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 39.57	28.70
3 or more Axles; Euclids, Dumpton & Articulated, Truck Mechanic.....	\$ 39.72	28.70

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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via

email to dba.reconsideration@dol.gov or by mail 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 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.

=====

END OF GENERAL DECISION"

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 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

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	201.0105 Clearing	31.000 STA	_____.	_____.
0004	201.0205 Grubbing	31.000 STA	_____.	_____.
0006	203.0100 Removing Small Pipe Culverts	2.000 EACH	_____.	_____.
0008	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 001. B-13-333	1.000 EACH	_____.	_____.
0010	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 002. P-13-754	1.000 EACH	_____.	_____.
0012	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 003. P-13-755	1.000 EACH	_____.	_____.
0014	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 004. P-13-756	1.000 EACH	_____.	_____.
0016	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 005. B-13-332	1.000 EACH	_____.	_____.
0018	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 006. P-13-753	1.000 EACH	_____.	_____.
0020	204.0100 Removing Concrete Pavement	13,977.000 SY	_____.	_____.
0022	204.0110 Removing Asphaltic Surface	466.000 SY	_____.	_____.
0024	204.0120 Removing Asphaltic Surface Milling	4,310.000 SY	_____.	_____.
0026	204.0150 Removing Curb & Gutter	10,832.000 LF	_____.	_____.



Proposal Schedule of Items

Page 2 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0028	204.0155 Removing Concrete Sidewalk	937.000 SY	_____.	_____.
0030	204.0165 Removing Guardrail	4,615.000 LF	_____.	_____.
0032	204.0185 Removing Masonry	5.000 CY	_____.	_____.
0034	204.0195 Removing Concrete Bases	81.000 EACH	_____.	_____.
0036	204.0210 Removing Manholes	16.000 EACH	_____.	_____.
0038	204.0220 Removing Inlets	63.000 EACH	_____.	_____.
0040	204.0245 Removing Storm Sewer (size) 001. 29x45-Inch	242.000 LF	_____.	_____.
0042	204.0245 Removing Storm Sewer (size) 002. 24-Inch	208.000 LF	_____.	_____.
0044	204.0245 Removing Storm Sewer (size) 003. 21-Inch	282.000 LF	_____.	_____.
0046	204.0245 Removing Storm Sewer (size) 004. 18-Inch	865.000 LF	_____.	_____.
0048	204.0245 Removing Storm Sewer (size) 005. 15-Inch	623.000 LF	_____.	_____.
0050	204.0245 Removing Storm Sewer (size) 006. 12-Inch	1,030.000 LF	_____.	_____.
0052	204.0246 Removing Ancillary Structure (structure) 001. S-13-3007	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 3 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0054	204.0246 Removing Ancillary Structure (structure) 002. S-13-3006	1.000 EACH	_____.	_____.
0056	204.0265 Abandoning Wells	1.000 EACH	_____.	_____.
0058	204.9060.S Removing (item description) 001. Navigational Markers	6.000 EACH	_____.	_____.
0060	204.9060.S Removing (item description) 002. Street Light Assembly	49.000 EACH	_____.	_____.
0062	204.9060.S Removing (item description) 003. Traffic Signal (John Nolen Drive & North Shore Drive)	1.000 EACH	_____.	_____.
0064	204.9060.S Removing (item description) 004. Traffic Signal (John Nolen Drive & Broom Street)	1.000 EACH	_____.	_____.
0066	204.9060.S Removing (item description) 005. Inlet Covers	2.000 EACH	_____.	_____.
0068	204.9060.S Removing (item description) 006. Bicycle Counter Base	1.000 EACH	_____.	_____.
0070	204.9090.S Removing (item description) 001. Or Abandoning Existing Conduit	15,000.000 LF	_____.	_____.
0072	204.9090.S Removing (item description) 002. Electrical Cables from Existing Conduit	15,300.000 LF	_____.	_____.
0074	204.9090.S Removing (item description) 003. Railing and Bases	445.000 LF	_____.	_____.



Proposal Schedule of Items

Page 4 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0076	204.9090.S Removing (item description) 004. Underdrain 6-Inch	72.000 LF	_____.	_____.
0078	205.0100 Excavation Common	39,108.000 CY	_____.	_____.
0080	206.1001 Excavation for Structures Bridges (structure) 001. B-13-924 NB	1.000 EACH	_____.	_____.
0082	206.1001 Excavation for Structures Bridges (structure) 002. B-13-924 SB	1.000 EACH	_____.	_____.
0084	206.1001 Excavation for Structures Bridges (structure) 003. B-13-926 NB	1.000 EACH	_____.	_____.
0086	206.1001 Excavation for Structures Bridges (structure) 004. B-13-926 SB	1.000 EACH	_____.	_____.
0088	206.1001 Excavation for Structures Bridges (structure) 005. B-13-930 NB	1.000 EACH	_____.	_____.
0090	206.1001 Excavation for Structures Bridges (structure) 006. B-13-930 SB	1.000 EACH	_____.	_____.
0092	206.1001 Excavation for Structures Bridges (structure) 007. B-13-932	1.000 EACH	_____.	_____.
0094	206.1001 Excavation for Structures Bridges (structure) 008. B-13-933	1.000 EACH	_____.	_____.
0096	206.1001 Excavation for Structures Bridges (structure) 009. B-13-934	1.000 EACH	_____.	_____.
0098	206.3001 Excavation for Structures Retaining Walls (structure) 010. R-13-407	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 5 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0100	206.3001 Excavation for Structures Retaining Walls (structure) 011. R-13-408	1.000 EACH	_____.	_____.
0102	206.3001 Excavation for Structures Retaining Walls (structure) 012. R-13-409	1.000 EACH	_____.	_____.
0104	206.5001 Cofferdams (structure) 001. B-13-924 NB	1.000 EACH	_____.	_____.
0106	206.5001 Cofferdams (structure) 002. B-13-924 SB	1.000 EACH	_____.	_____.
0108	206.5001 Cofferdams (structure) 003. B-13-926 NB	1.000 EACH	_____.	_____.
0110	206.5001 Cofferdams (structure) 004. B-13-926 SB	1.000 EACH	_____.	_____.
0112	206.5001 Cofferdams (structure) 005. B-13-930 NB	1.000 EACH	_____.	_____.
0114	206.5001 Cofferdams (structure) 006. B-13-930 SB	1.000 EACH	_____.	_____.
0116	206.5001 Cofferdams (structure) 007. B-13-932	1.000 EACH	_____.	_____.
0118	206.5001 Cofferdams (structure) 008. B-13-933	1.000 EACH	_____.	_____.
0120	206.5001 Cofferdams (structure) 009. B-13-934	1.000 EACH	_____.	_____.
0122	206.5001 Cofferdams (structure) 010. 83.0	1.000 EACH	_____.	_____.
0124	206.5001 Cofferdams (structure) 011. 94.0	1.000 EACH	_____.	_____.
0126	206.5001 Cofferdams (structure) 012. 97.E	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 6 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0128	206.5001 Cofferdams (structure) 013. 99.0	1.000 EACH	_____.	_____.
0130	206.5001 Cofferdams (structure) 014. 109.0	1.000 EACH	_____.	_____.
0132	206.5001 Cofferdams (structure) 015. 111.0	1.000 EACH	_____.	_____.
0134	206.5001 Cofferdams (structure) 016. 114.0	1.000 EACH	_____.	_____.
0136	206.5001 Cofferdams (structure) 017. 119.0	1.000 EACH	_____.	_____.
0138	206.5001 Cofferdams (structure) 018. 120.0	1.000 EACH	_____.	_____.
0140	206.5001 Cofferdams (structure) 019. 123.0	1.000 EACH	_____.	_____.
0142	206.5001 Cofferdams (structure) 020. 127.0	1.000 EACH	_____.	_____.
0144	206.5001 Cofferdams (structure) 021. 10.0	1.000 EACH	_____.	_____.
0146	206.5001 Cofferdams (structure) 022. 83+80 RT	1.000 EACH	_____.	_____.
0148	206.5001 Cofferdams (structure) 023. 94+47 RT	1.000 EACH	_____.	_____.
0150	206.5001 Cofferdams (structure) 024. 99+75 RT	1.000 EACH	_____.	_____.
0152	206.5001 Cofferdams (structure) 025. 114+70 RT	1.000 EACH	_____.	_____.
0154	210.1500 Backfill Structure Type A	2,320.000 TON	_____.	_____.
0156	213.0100 Finishing Roadway (project) 001. 5992-11-21	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 7 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0158	213.0100 Finishing Roadway (project) 002. 5992-11-28	1.000 EACH	_____.	_____.
0160	305.0110 Base Aggregate Dense 3/4-Inch	512.000 TON	_____.	_____.
0162	305.0120 Base Aggregate Dense 1 1/4-Inch	43,548.000 TON	_____.	_____.
0164	310.0110 Base Aggregate Open-Graded	41.000 TON	_____.	_____.
0166	312.0110 Select Crushed Material	29,611.000 TON	_____.	_____.
0168	371.2000.S QMP Base Aggregate Dense 1 1/4-Inch Compaction	24.000 EACH	_____.	_____.
0170	405.0100 Coloring Concrete WisDOT Red	18.000 CY	_____.	_____.
0172	405.1000 Stamping Colored Concrete	275.000 CY	_____.	_____.
0174	415.0090 Concrete Pavement 9-Inch	306.000 SY	_____.	_____.
0176	415.0095 Concrete Pavement 9 1/2-Inch	9,707.000 SY	_____.	_____.
0178	415.0210 Concrete Pavement Gaps	2.000 EACH	_____.	_____.
0180	415.0410 Concrete Pavement Approach Slab	541.000 SY	_____.	_____.
0182	415.1095 Concrete Pavement HES 9 1/2-Inch	72.000 SY	_____.	_____.
0184	415.2010 Concrete Truck Apron 12-inch	24.000 SY	_____.	_____.



Proposal Schedule of Items

Page 8 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0186	416.0610 Drilled Tie Bars	411.000 EACH	_____.	_____.
0188	416.0620 Drilled Dowel Bars	80.000 EACH	_____.	_____.
0190	455.0605 Tack Coat	2,446.000 GAL	_____.	_____.
0192	460.2000 Incentive Density HMA Pavement	3,690.000 DOL	1.00000	3,690.00
0194	460.5224 HMA Pavement 4 LT 58-28 S	1,205.000 TON	_____.	_____.
0196	460.6223 HMA Pavement 3 MT 58-28 S	4,533.000 TON	_____.	_____.
0198	460.6424 HMA Pavement 4 MT 58-28 H	2,137.000 TON	_____.	_____.
0200	465.0125 Asphaltic Surface Temporary	1,270.000 TON	_____.	_____.
0202	495.1000.S Cold Patch	5.000 TON	_____.	_____.
0204	501.1000.S Ice Hot Weather Concreting	23,192.000 LB	_____.	_____.
0206	502.0100 Concrete Masonry Bridges	1,227.000 CY	_____.	_____.
0208	502.2000 Compression Joint Sealer Preformed Elastomeric (width) 001. 2 1/4-Inch	533.000 LF	_____.	_____.
0210	502.3200 Protective Surface Treatment	5,939.000 SY	_____.	_____.
0212	502.3210 Pigmented Surface Sealer	878.000 SY	_____.	_____.
0214	502.4204 Adhesive Anchors No. 4 Bar	838.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 9 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0216	503.0137 Prestressed Girder Type I 36W-Inch	6,005.000 LF	_____.	_____.
0218	504.0500 Concrete Masonry Retaining Walls	260.000 CY	_____.	_____.
0220	504.0900 Concrete Masonry Endwalls	2.100 CY	_____.	_____.
0222	505.0400 Bar Steel Reinforcement HS Structures	87,870.000 LB	_____.	_____.
0224	505.0600 Bar Steel Reinforcement HS Coated Structures	498,280.000 LB	_____.	_____.
0226	505.0800.S Bar Steel Reinforcement HS Stainless Structures	7,110.000 LB	_____.	_____.
0228	506.2605 Bearing Pads Elastomeric Non-Laminated	152.000 EACH	_____.	_____.
0230	506.4000 Steel Diaphragms (structure) 001. B-13-924 NB	16.000 EACH	_____.	_____.
0232	506.4000 Steel Diaphragms (structure) 002. B-13-924 SB	12.000 EACH	_____.	_____.
0234	506.4000 Steel Diaphragms (structure) 003. B-13-926 NB	20.000 EACH	_____.	_____.
0236	506.4000 Steel Diaphragms (structure) 004. B-13-926 SB	16.000 EACH	_____.	_____.
0238	506.4000 Steel Diaphragms (structure) 005. B-13-930 NB	6.000 EACH	_____.	_____.
0240	506.4000 Steel Diaphragms (structure) 006. B-13-930 SB	6.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 10 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0242	506.4000 Steel Diaphragms (structure) 007. B-13-932	4.000 EACH	_____.	_____.
0244	506.4000 Steel Diaphragms (structure) 008. B-13-933	8.000 EACH	_____.	_____.
0246	506.4000 Steel Diaphragms (structure) 009. B-13-934	12.000 EACH	_____.	_____.
0248	509.5100.S Polymer Overlay	4,522.000 SY	_____.	_____.
0250	511.1200 Temporary Shoring (structure) 002. B-13-924 SB	228.000 SF	_____.	_____.
0252	511.1200 Temporary Shoring (structure) 003. B-13-926 NB	123.000 SF	_____.	_____.
0254	511.1200 Temporary Shoring (structure) 004. B-13-926 SB	228.000 SF	_____.	_____.
0256	511.1200 Temporary Shoring (structure) 005. B-13-930 NB	734.000 SF	_____.	_____.
0258	511.1200 Temporary Shoring (structure) 006. B-13-930 SB	734.000 SF	_____.	_____.
0260	512.0500 Piling Steel Sheet Permanent Delivered	14,833.000 SF	_____.	_____.
0262	512.0600 Piling Steel Sheet Permanent Driven	14,833.000 SF	_____.	_____.
0264	513.8011 Railing Steel Pedestrian Type C2	1,243.000 LF	_____.	_____.
0266	516.0500 Rubberized Membrane Waterproofing	165.000 SY	_____.	_____.



Proposal Schedule of Items

Page 11 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0268	517.1010.S Concrete Staining (structure) 001. B-13-924 NB	2,422.000 SF	_____.	_____.
0270	517.1010.S Concrete Staining (structure) 002. B-13-924 SB	2,355.000 SF	_____.	_____.
0272	517.1010.S Concrete Staining (structure) 003. B-13-926 NB	2,690.000 SF	_____.	_____.
0274	517.1010.S Concrete Staining (structure) 004. B-13-926 SB	2,460.000 SF	_____.	_____.
0276	517.1010.S Concrete Staining (structure) 005. B-13-930 NB	1,523.000 SF	_____.	_____.
0278	517.1010.S Concrete Staining (structure) 006. B-13-930 SB	1,687.000 SF	_____.	_____.
0280	517.1010.S Concrete Staining (structure) 007. B-13-932	1,728.000 SF	_____.	_____.
0282	517.1010.S Concrete Staining (structure) 008. B-13-933	2,915.000 SF	_____.	_____.
0284	517.1010.S Concrete Staining (structure) 009. B-13-934	3,249.000 SF	_____.	_____.
0286	517.1010.S Concrete Staining (structure) 010. R-13-407	168.000 SF	_____.	_____.
0288	517.1010.S Concrete Staining (structure) 011. R-13-408	135.000 SF	_____.	_____.
0290	517.1010.S Concrete Staining (structure) 012. R-13-409	191.000 SF	_____.	_____.



Proposal Schedule of Items

Page 12 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0292	520.2015 Culvert Pipe Temporary 15-Inch	162.000 LF	_____.	_____.
0294	520.2018 Culvert Pipe Temporary 18-Inch	78.000 LF	_____.	_____.
0296	520.2024 Culvert Pipe Temporary 24-Inch	76.000 LF	_____.	_____.
0298	520.8000 Concrete Collars for Pipe	14.000 EACH	_____.	_____.
0300	522.0118 Culvert Pipe Reinforced Concrete Class III 18-Inch	124.000 LF	_____.	_____.
0302	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	3.000 EACH	_____.	_____.
0304	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	5.000 EACH	_____.	_____.
0306	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH	_____.	_____.
0308	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	3.000 EACH	_____.	_____.
0310	531.2042 Drilling Shaft 42-Inch	46.000 LF	_____.	_____.
0312	531.5440 Foundation Single-Shaft Type TF-IV (structure) 001. S-13-579	2.000 EACH	_____.	_____.
0314	531.8990 Anchor Assemblies Poles on Structures	4.000 EACH	_____.	_____.
0316	532.5440 Truss Full Span 2-Chord Type IV (structure) 001. S-13-579	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 13 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0318	550.2148 Piling CIP Concrete 14 X 0.50-Inch	11,610.000 LF	_____.	_____.
0320	601.0581 Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type R	82.000 LF	_____.	_____.
0322	601.0600 Concrete Curb Pedestrian	204.000 LF	_____.	_____.
0324	602.0410 Concrete Sidewalk 5-Inch	5,240.000 SF	_____.	_____.
0326	602.0420 Concrete Sidewalk 7-Inch	36,570.000 SF	_____.	_____.
0328	602.0515 Curb Ramp Detectable Warning Field Natural Patina	874.000 SF	_____.	_____.
0330	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	198.000 SF	_____.	_____.
0332	602.3010 Concrete Surface Drains	4.000 CY	_____.	_____.
0334	603.8000 Concrete Barrier Temporary Precast Delivered	1,788.000 LF	_____.	_____.
0336	603.8125 Concrete Barrier Temporary Precast Installed	1,788.000 LF	_____.	_____.
0338	603.8500 Anchoring Concrete Barrier Temporary Precast	125.000 LF	_____.	_____.
0340	603.8505 Anchoring Concrete Barrier Temporary Precast on Bridge Decks	150.000 LF	_____.	_____.
0342	606.0200 Riprap Medium	35.000 CY	_____.	_____.



Proposal Schedule of Items

Page 14 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0344	606.0300 Riprap Heavy	802.000 CY	_____.	_____.
0346	608.0118 Relaid Storm Sewer 18-Inch	16.000 LF	_____.	_____.
0348	608.0130 Relaid Storm Sewer 30-Inch	32.000 LF	_____.	_____.
0350	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	4,867.000 LF	_____.	_____.
0352	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	1,018.000 LF	_____.	_____.
0354	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	592.000 LF	_____.	_____.
0356	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	179.000 LF	_____.	_____.
0358	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	64.000 LF	_____.	_____.
0360	608.0327 Storm Sewer Pipe Reinforced Concrete Class III 27-Inch	34.000 LF	_____.	_____.
0362	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	364.000 LF	_____.	_____.
0364	608.2329 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	12.000 LF	_____.	_____.
0366	608.6008 Storm Sewer Pipe Composite 8-Inch	10.000 LF	_____.	_____.
0368	611.0642 Inlet Covers Type MS	9.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 15 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0370	611.0651 Inlet Covers Type S	2.000 EACH	_____.	_____.
0372	611.0652 Inlet Covers Type T	2.000 EACH	_____.	_____.
0374	611.0654 Inlet Covers Type V	3.000 EACH	_____.	_____.
0376	611.0666 Inlet Covers Type Z	9.000 EACH	_____.	_____.
0378	611.2003 Manholes 3-FT Diameter	2.000 EACH	_____.	_____.
0380	611.2004 Manholes 4-FT Diameter	1.000 EACH	_____.	_____.
0382	611.2005 Manholes 5-FT Diameter	8.000 EACH	_____.	_____.
0384	611.2006 Manholes 6-FT Diameter	1.000 EACH	_____.	_____.
0386	611.3003 Inlets 3-FT Diameter	8.000 EACH	_____.	_____.
0388	611.3004 Inlets 4-FT Diameter	38.000 EACH	_____.	_____.
0390	611.3225 Inlets 2x2.5-FT	3.000 EACH	_____.	_____.
0392	611.3230 Inlets 2x3-FT	91.000 EACH	_____.	_____.
0394	611.3901 Inlets Median 1 Grate	9.000 EACH	_____.	_____.
0396	611.8110 Adjusting Manhole Covers	2.000 EACH	_____.	_____.
0398	611.8120.S Cover Plates Temporary	17.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 16 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0400	612.0206 Pipe Underdrain Unperforated 6-Inch	72.000 LF	_____.	_____.
0402	612.0406 Pipe Underdrain Wrapped 6-Inch	2,927.000 LF	_____.	_____.
0404	614.0800 Crash Cushions Permanent	6.000 EACH	_____.	_____.
0406	616.0700.S Fence Safety	4,000.000 LF	_____.	_____.
0408	618.0100 Maintenance and Repair of Haul Roads (project) 001. 5992-11-21	1.000 EACH	_____.	_____.
0410	619.1000 Mobilization	1.000 EACH	_____.	_____.
0412	620.0200 Concrete Median Blunt Nose	13.000 SF	_____.	_____.
0414	620.0300 Concrete Median Sloped Nose	976.000 SF	_____.	_____.
0416	624.0100 Water	581.000 MGAL	_____.	_____.
0418	625.0100 Topsoil	34,835.000 SY	_____.	_____.
0420	625.0105 Topsoil	3,210.000 CY	_____.	_____.
0422	627.0200 Mulching	500.000 SY	_____.	_____.
0424	628.1104 Erosion Bales	50.000 EACH	_____.	_____.
0426	628.1504 Silt Fence	500.000 LF	_____.	_____.
0428	628.1520 Silt Fence Maintenance	500.000 LF	_____.	_____.



Proposal Schedule of Items

Page 17 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0430	628.1530.S Silt Fence Heavy Duty	4,780.000 LF	_____.	_____.
0432	628.1535.S Silt Fence Heavy Duty Maintenance	8,070.000 LF	_____.	_____.
0434	628.1905 Mobilizations Erosion Control	40.000 EACH	_____.	_____.
0436	628.1910 Mobilizations Emergency Erosion Control	28.000 EACH	_____.	_____.
0438	628.2006 Erosion Mat Urban Class I Type A	24,000.000 SY	_____.	_____.
0440	628.2008 Erosion Mat Urban Class I Type B	1,780.000 SY	_____.	_____.
0442	628.7005 Inlet Protection Type A	175.000 EACH	_____.	_____.
0444	628.7010 Inlet Protection Type B	20.000 EACH	_____.	_____.
0446	628.7015 Inlet Protection Type C	215.000 EACH	_____.	_____.
0448	628.7020 Inlet Protection Type D	90.000 EACH	_____.	_____.
0450	628.7504 Temporary Ditch Checks	425.000 LF	_____.	_____.
0452	628.7555 Culvert Pipe Checks	10.000 EACH	_____.	_____.
0454	628.7560 Tracking Pads	6.000 EACH	_____.	_____.
0456	629.0210 Fertilizer Type B	23.000 CWT	_____.	_____.
0458	630.0130 Seeding Mixture No. 30	430.000 LB	_____.	_____.



Proposal Schedule of Items

Page 18 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001

Contract Items

Alt Set ID:**Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0460	630.0140 Seeding Mixture No. 40	125.000 LB	_____.	_____.
0462	630.0200 Seeding Temporary	345.000 LB	_____.	_____.
0464	630.0500 Seed Water	560.000 MGAL	_____.	_____.
0466	631.0300 Sod Water	410.000 MGAL	_____.	_____.
0468	631.1000 Sod Lawn	9,060.000 SY	_____.	_____.
0470	633.5200 Markers Culvert End	3.000 EACH	_____.	_____.
0472	637.2210 Signs Type II Reflective H	375.000 SF	_____.	_____.
0474	637.2220 Signs Type II Reflective SH	241.000 SF	_____.	_____.
0476	637.2230 Signs Type II Reflective F	81.140 SF	_____.	_____.
0478	638.2601 Removing Signs Type I	2.000 EACH	_____.	_____.
0480	638.2602 Removing Signs Type II	94.000 EACH	_____.	_____.
0482	638.3000 Removing Small Sign Supports	60.000 EACH	_____.	_____.
0484	638.3620 Erecting State Owned Signs Type II	37.000 EACH	_____.	_____.
0486	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0488	643.0300 Traffic Control Drums	322,830.000 DAY	_____.	_____.



Proposal Schedule of Items

Page 19 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0490	643.0420 Traffic Control Barricades Type III	37,470.000 DAY	_____.	_____.
0492	643.0500 Traffic Control Flexible Tubular Marker Posts	410.000 EACH	_____.	_____.
0494	643.0600 Traffic Control Flexible Tubular Marker Bases	390.000 EACH	_____.	_____.
0496	643.0705 Traffic Control Warning Lights Type A	42,754.000 DAY	_____.	_____.
0498	643.0715 Traffic Control Warning Lights Type C	45,970.000 DAY	_____.	_____.
0500	643.0810.S Connected Arrow Board	3,730.000 DAY	_____.	_____.
0502	643.0900 Traffic Control Signs	166,048.000 DAY	_____.	_____.
0504	643.0910 Traffic Control Covering Signs Type I	3.000 EACH	_____.	_____.
0506	643.0920 Traffic Control Covering Signs Type II	11.000 EACH	_____.	_____.
0508	643.1000 Traffic Control Signs Fixed Message	40.000 SF	_____.	_____.
0510	643.1050 Traffic Control Signs PCMS	112.000 DAY	_____.	_____.
0512	643.1220.S Connected Work Zone Start and End Location Markers	2,910.000 DAY	_____.	_____.
0514	643.3170 Temporary Marking Line Epoxy 6-Inch	39,690.000 LF	_____.	_____.
0516	643.3180 Temporary Marking Line Removable Tape 6-Inch	3,100.000 LF	_____.	_____.



Proposal Schedule of Items

Page 20 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0518	643.3270 Temporary Marking Line Epoxy 10-Inch	1,710.000 LF	_____.	_____.
0520	643.3280 Temporary Marking Line Removable Tape 10-Inch	540.000 LF	_____.	_____.
0522	643.3320 Temporary Marking Crosswalk Epoxy 6-inch	90.000 LF	_____.	_____.
0524	643.3520 Temporary Marking Arrow Epoxy	19.000 EACH	_____.	_____.
0526	643.3550 Temporary Marking Arrow Removable Tape	7.000 EACH	_____.	_____.
0528	643.3620 Temporary Marking Word Epoxy	3.000 EACH	_____.	_____.
0530	643.3650 Temporary Marking Word Removable Tape	2.000 EACH	_____.	_____.
0532	643.3820 Temporary Marking Stop Line Epoxy 18-Inch	190.000 LF	_____.	_____.
0534	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0536	644.1410 Temporary Pedestrian Surface Asphalt	1,860.000 SF	_____.	_____.
0538	644.1430 Temporary Pedestrian Surface Plate	500.000 SF	_____.	_____.
0540	644.1440 Temporary Pedestrian Surface Matting	5,320.000 SF	_____.	_____.
0542	644.1605 Temporary Pedestrian Detectable Warning Field	163.000 SF	_____.	_____.



Proposal Schedule of Items

Page 21 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0544	644.1810 Temporary Pedestrian Barricade	6,250.000 LF	_____.	_____.
0546	645.0111 Geotextile Type DF Schedule A	559.000 SY	_____.	_____.
0548	645.0120 Geotextile Type HR	15,315.000 SY	_____.	_____.
0550	645.0140 Geotextile Type SAS	2,750.000 SY	_____.	_____.
0552	645.0220 Geogrid Type SR	36,265.000 SY	_____.	_____.
0554	646.1020 Marking Line Epoxy 4-Inch	1,753.000 LF	_____.	_____.
0556	646.2020 Marking Line Epoxy 6-Inch	5,461.000 LF	_____.	_____.
0558	646.3020 Marking Line Epoxy 8-Inch	2,893.000 LF	_____.	_____.
0560	646.5020 Marking Arrow Epoxy	39.000 EACH	_____.	_____.
0562	646.5120 Marking Word Epoxy	5.000 EACH	_____.	_____.
0564	646.5220 Marking Symbol Epoxy	24.000 EACH	_____.	_____.
0566	646.5320 Marking Railroad Crossing Epoxy	7.000 EACH	_____.	_____.
0568	646.7320 Marking Chevron Epoxy 12-Inch	207.000 LF	_____.	_____.
0570	646.7520 Marking Crosswalk Epoxy Block Style 24-Inch	1,549.000 LF	_____.	_____.
0572	646.8120 Marking Curb Epoxy	152.000 LF	_____.	_____.



Proposal Schedule of Items

Page 22 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0574	646.8220 Marking Island Nose Epoxy	9.000 EACH	_____.	_____.
0576	646.9000 Marking Removal Line 4-Inch	4,260.000 LF	_____.	_____.
0578	646.9200 Marking Removal Line Wide	168.000 LF	_____.	_____.
0580	646.9300 Marking Removal Special Marking	23.000 EACH	_____.	_____.
0582	652.0125 Conduit Rigid Metallic 2-Inch	128.000 LF	_____.	_____.
0584	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	20,053.000 LF	_____.	_____.
0586	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	7,345.000 LF	_____.	_____.
0588	652.0240 Conduit Rigid Nonmetallic Schedule 40 4-Inch	700.000 LF	_____.	_____.
0590	652.0325 Conduit Rigid Nonmetallic Schedule 80 2-Inch	1,519.000 LF	_____.	_____.
0592	652.0335 Conduit Rigid Nonmetallic Schedule 80 3-Inch	1,692.000 LF	_____.	_____.
0594	652.0700.S Install Conduit into Existing Item	14.000 EACH	_____.	_____.
0596	653.0222 Junction Boxes 18x12x6-Inch	4.000 EACH	_____.	_____.
0598	653.0905 Removing Pull Boxes	37.000 EACH	_____.	_____.
0600	655.0230 Cable Traffic Signal 5-14 AWG	3,839.000 LF	_____.	_____.



Proposal Schedule of Items

Page 23 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

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	655.0240 Cable Traffic Signal 7-14 AWG	3,519.000 LF	_____.	_____.
0604	655.0260 Cable Traffic Signal 12-14 AWG	2,610.000 LF	_____.	_____.
0606	655.0610 Electrical Wire Lighting 12 AWG	15,819.000 LF	_____.	_____.
0608	655.0615 Electrical Wire Lighting 10 AWG	6,428.000 LF	_____.	_____.
0610	655.0620 Electrical Wire Lighting 8 AWG	9,642.000 LF	_____.	_____.
0612	655.0625 Electrical Wire Lighting 6 AWG	28,002.000 LF	_____.	_____.
0614	656.0201 Electrical Service Meter Breaker Pedestal (location) 001. John Nolen Drive & North Shore Drive Signals	1.000 EACH	_____.	_____.
0616	656.0201 Electrical Service Meter Breaker Pedestal (location) 002. John Nolen Drive & Broom Street Signals	1.000 EACH	_____.	_____.
0618	656.0201 Electrical Service Meter Breaker Pedestal (location) 003. John Nolen Drive & North Shore Drive Lighting	1.000 EACH	_____.	_____.
0620	657.0100 Pedestal Bases	24.000 EACH	_____.	_____.
0622	657.0255 Transformer Bases Breakaway 11 1/2- Inch Bolt Circle	42.000 EACH	_____.	_____.
0624	657.0405 Traffic Signal Standards Aluminum 3.5- FT	4.000 EACH	_____.	_____.
0626	657.0420 Traffic Signal Standards Aluminum 13-FT	14.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 24 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0628	657.0430 Traffic Signal Standards Aluminum 10-FT	6.000 EACH	_____.	_____.
0630	658.5070 Signal Mounting Hardware (location) 001. John Nolen Drive & North Shore Drive	1.000 EACH	_____.	_____.
0632	658.5070 Signal Mounting Hardware (location) 002. John Nolen Drive & Broom Street	1.000 EACH	_____.	_____.
0634	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	49.000 EACH	_____.	_____.
0636	678.0200 Fiber Optic Splice Enclosure	6.000 EACH	_____.	_____.
0638	678.0400 Fiber Optic Termination	2.000 EACH	_____.	_____.
0640	690.0150 Sawing Asphalt	998.000 LF	_____.	_____.
0642	690.0250 Sawing Concrete	2,549.000 LF	_____.	_____.
0644	715.0502 Incentive Strength Concrete Structures	21,190.000 DOL	1.00000	21,190.00
0646	715.0720 Incentive Compressive Strength Concrete Pavement	3,180.000 DOL	1.00000	3,180.00
0648	740.0440 Incentive IRI Ride	6,470.000 DOL	1.00000	6,470.00
0650	801.0117 Railroad Flagging Reimbursement	202,356.000 DOL	1.00000	202,356.00
0652	999.2000.S Installing and Maintaining Bird Deterrent System (station) 001. Station 88+50	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 25 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0654	999.2000.S Installing and Maintaining Bird Deterrent System (station) 002. Station 108+00	1.000 EACH	_____.	_____.
0656	999.2000.S Installing and Maintaining Bird Deterrent System (station) 003. Station 113+00	1.000 EACH	_____.	_____.
0658	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	3,500.000 HRS	5.00000	17,500.00
0660	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	9,720.000 HRS	5.00000	48,600.00
0662	SPV.0035 Special 001. Pea Gravel 3/8-Inch	34.000 CY	_____.	_____.
0664	SPV.0035 Special 002. Engineered Soil	388.000 CY	_____.	_____.
0666	SPV.0035 Special 201. HPC Masonry Structures	1,824.000 CY	_____.	_____.
0668	SPV.0045 Special 001. Temporary RRFB	800.000 DAY	_____.	_____.
0670	SPV.0060 Special 001. Dewatering Project 5992-11-21	1.000 EACH	_____.	_____.
0672	SPV.0060 Special 002. Dewatering Project 5992-11-22	1.000 EACH	_____.	_____.
0674	SPV.0060 Special 003. Dewatering Project 5992-11-23	1.000 EACH	_____.	_____.
0676	SPV.0060 Special 004. Dewatering Project 5992-11-24	1.000 EACH	_____.	_____.
0678	SPV.0060 Special 005. Dewatering Project 5992-11-25	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 26 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0680	SPV.0060 Special 006. Dewatering Project 5992-11-26	1.000 EACH	_____.	_____.
0682	SPV.0060 Special 007. Dewatering Project 5992-11-27	1.000 EACH	_____.	_____.
0684	SPV.0060 Special 008. Dewatering Project 5992-11-28	1.000 EACH	_____.	_____.
0686	SPV.0060 Special 009. Settlement Monitoring	3.000 EACH	_____.	_____.
0688	SPV.0060 Special 010. Precast Sign Post Base	71.000 EACH	_____.	_____.
0690	SPV.0060 Special 011. Sign Post Base For Concrete Installation	14.000 EACH	_____.	_____.
0692	SPV.0060 Special 012. Special Sign Base	1.000 EACH	_____.	_____.
0694	SPV.0060 Special 013. Inlet Covers Type H Special	84.000 EACH	_____.	_____.
0696	SPV.0060 Special 014. Inlet Covers Type H-S Special	50.000 EACH	_____.	_____.
0698	SPV.0060 Special 015. Manhole Covers Type J Special	21.000 EACH	_____.	_____.
0700	SPV.0060 Special 016. Construction Staking Project 5992-11-21	1.000 EACH	_____.	_____.
0702	SPV.0060 Special 017. Construction Staking Project 5992-11-22	1.000 EACH	_____.	_____.
0704	SPV.0060 Special 018. Construction Staking Project 5992-11-23	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 27 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0706	SPV.0060 Special 019. Construction Staking Project 5992-11-24	1.000 EACH	_____.	_____.
0708	SPV.0060 Special 020. Construction Staking Project 5992-11-25	1.000 EACH	_____.	_____.
0710	SPV.0060 Special 021. Construction Staking Project 5992-11-26	1.000 EACH	_____.	_____.
0712	SPV.0060 Special 022. Construction Staking Project 5992-11-27	1.000 EACH	_____.	_____.
0714	SPV.0060 Special 023. Construction Staking Project 5992-11-28	1.000 EACH	_____.	_____.
0716	SPV.0060 Special 024. Utility Line Opening (ULO)	34.000 EACH	_____.	_____.
0718	SPV.0060 Special 025. Remove and Reinstall Historical Monument	2.000 EACH	_____.	_____.
0720	SPV.0060 Special 026. Access Gate 3-Foot Polymer-Coated	5.000 EACH	_____.	_____.
0722	SPV.0060 Special 027. Catch Basins 6-FT X 6-FT	7.000 EACH	_____.	_____.
0724	SPV.0060 Special 028. Catch Basins 6-FT X 10-FT	1.000 EACH	_____.	_____.
0726	SPV.0060 Special 029. Manholes 6-FT X 10-FT	2.000 EACH	_____.	_____.
0728	SPV.0060 Special 030. Adjust Sanitary Sewer Access Structure	2.000 EACH	_____.	_____.
0730	SPV.0060 Special 031. Permanent Navigational Buoys	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 28 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0732	SPV.0060 Special 032. Furnish and Install Water Valve 12-Inch	2.000 EACH	_____.	_____.
0734	SPV.0060 Special 033. Fishing Dock Abutment	1.000 EACH	_____.	_____.
0736	SPV.0060 Special 034. Underdrain Cleanout 8-Inch	2.000 EACH	_____.	_____.
0738	SPV.0060 Special 035. Standpipe 12-Inch With Grate	2.000 EACH	_____.	_____.
0740	SPV.0060 Special 036. Concrete Supports	2.000 EACH	_____.	_____.
0742	SPV.0060 Special 201. Install Cast in Place Strut Channel	130.000 EACH	_____.	_____.
0744	SPV.0060 Special 301. Electrical Pull Box Type I	3.000 EACH	_____.	_____.
0746	SPV.0060 Special 302. Electrical Pull Box Type III	4.000 EACH	_____.	_____.
0748	SPV.0060 Special 303. Electrical Pull Box Type V	58.000 EACH	_____.	_____.
0750	SPV.0060 Special 304. Electrical Pull Box Type VII	18.000 EACH	_____.	_____.
0752	SPV.0060 Special 305. Concrete Bases Type GR	25.000 EACH	_____.	_____.
0754	SPV.0060 Special 306. Concrete Bases Type LB-2	45.000 EACH	_____.	_____.
0756	SPV.0060 Special 307. Concrete Bases Type LB-3R	45.000 EACH	_____.	_____.
0758	SPV.0060 Special 308. Concrete Bases Type LB-8R	2.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 29 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0760	SPV.0060 Special 309. Concrete Bases Type P	3.000 EACH	_____.	_____.
0762	SPV.0060 Special 310. Concrete Base Type Offset	1.000 EACH	_____.	_____.
0764	SPV.0060 Special 311. Transformer Bases 16-Inch Steel	6.000 EACH	_____.	_____.
0766	SPV.0060 Special 312. Pole 30-Foot 11 Gauge Staggered Twin Mount	2.000 EACH	_____.	_____.
0768	SPV.0060 Special 313. Pole 20-Foot, 7 Gauge	4.000 EACH	_____.	_____.
0770	SPV.0060 Special 314. Pole 30-Foot, 7 Gauge Twin Mount	1.000 EACH	_____.	_____.
0772	SPV.0060 Special 315. Pole 30-Foot, 11 Gauge Single Mount	10.000 EACH	_____.	_____.
0774	SPV.0060 Special 316. Pole 30-Foot, 11 Gauge Twin Mount	33.000 EACH	_____.	_____.
0776	SPV.0060 Special 317. USSL Luminaire and Mounting Bracket Type 1	10.000 EACH	_____.	_____.
0778	SPV.0060 Special 318. USSL Luminaire and Mounting Bracket Type 2	68.000 EACH	_____.	_____.
0780	SPV.0060 Special 320. Traffic Signal Trombone Arm 25-FT	2.000 EACH	_____.	_____.
0782	SPV.0060 Special 321. Traffic Signal Trombone Arm 12-FT	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 30 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0784	SPV.0060 Special 322. Traffic Signal Trombone Arm 18-FT	1.000 EACH	_____.	_____.
0786	SPV.0060 Special 323. Traffic Signal Trombone Arm 22-FT	2.000 EACH	_____.	_____.
0788	SPV.0060 Special 324. Traffic Signal Heads 12-Inch, 3-Section	34.000 EACH	_____.	_____.
0790	SPV.0060 Special 325. Traffic Signal Heads 12-Inch, 4-Section	2.000 EACH	_____.	_____.
0792	SPV.0060 Special 326. Traffic Signal Heads 16-Inch Pedestrian With Countdown	18.000 EACH	_____.	_____.
0794	SPV.0060 Special 327. Backplates Signal Face, 3-Section 12-Inch	34.000 EACH	_____.	_____.
0796	SPV.0060 Special 328. Backplates Signal Face, 4-Section 12-Inch	2.000 EACH	_____.	_____.
0798	SPV.0060 Special 329. Install City Furnished Traffic Signal Control Cabinet and Controller	2.000 EACH	_____.	_____.
0800	SPV.0060 Special 330. Optical Signal Preempt	2.000 EACH	_____.	_____.
0802	SPV.0060 Special 331. Traffic Signal Ethernet Switch	2.000 EACH	_____.	_____.
0804	SPV.0060 Special 332. No Right Turn Blank Out Sign	3.000 EACH	_____.	_____.
0806	SPV.0060 Special 333. Lighting Control Cabinet	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 31 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0808	SPV.0060 Special 334. Non-Intrusive Detection System	2.000 EACH	_____.	_____.
0810	SPV.0060 Special 335. Furnish & Install APS System (John Nolen Drive & North Shore Drive)	1.000 EACH	_____.	_____.
0812	SPV.0060 Special 336. Furnish & Install APS System (John Nolen Drive & Broom Street)	1.000 EACH	_____.	_____.
0814	SPV.0060 Special 337. Temporary Traffic Signals (John Nolen Drive & North Shore Drive)	1.000 EACH	_____.	_____.
0816	SPV.0060 Special 338. Temporary Traffic Signals (John Nolen Drive & Broom Street)	1.000 EACH	_____.	_____.
0818	SPV.0060 Special 339. Temporary Lighting, John Nolen Drive	1.000 EACH	_____.	_____.
0820	SPV.0060 Special 340. Temporary Fiber, John Nolen Drive	1.000 EACH	_____.	_____.
0822	SPV.0060 Special 341. Install 4" Bike Signal Head	6.000 EACH	_____.	_____.
0824	SPV.0060 Special 342. Fiber Optic Fusion Splice - 1 to 12 Per Location	24.000 EACH	_____.	_____.
0826	SPV.0060 Special 343. Fiber Optic Fusion Splice - 97 to 144 Per Location	576.000 EACH	_____.	_____.
0828	SPV.0060 Special 344. Fiber Optic Fusion Splice - >144 Per Location	390.000 EACH	_____.	_____.
0830	SPV.0060 Special 345. 24x24x12 Junction Box	6.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 32 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0832	SPV.0075 Special 001. Pavement Cleanup	500.000 HRS	_____.	_____.
0834	SPV.0090 Special 001. Concrete Curb & Gutter 24-Inch Type A	6,108.000 LF	_____.	_____.
0836	SPV.0090 Special 002. Concrete Curb & Gutter 24-Inch Type D	13,256.000 LF	_____.	_____.
0838	SPV.0090 Special 003. Concrete Curb & Gutter 36-Inch Type A	230.000 LF	_____.	_____.
0840	SPV.0090 Special 004. Concrete Curb & Gutter 24-Inch Special	57.000 LF	_____.	_____.
0842	SPV.0090 Special 005. Sign Post	143.000 LF	_____.	_____.
0844	SPV.0090 Special 006. Reflective Sign Post	759.000 LF	_____.	_____.
0846	SPV.0090 Special 007. Railroad Storm Sewer Box 3-FT X 6-FT	81.000 LF	_____.	_____.
0848	SPV.0090 Special 008. Storm Sewer Box 3-FT X 6-FT	153.000 LF	_____.	_____.
0850	SPV.0090 Special 009. Temporary Asphaltic Curb	110.000 LF	_____.	_____.
0852	SPV.0090 Special 010. Fence Chain Link Polymer Coated	2,787.000 LF	_____.	_____.
0854	SPV.0090 Special 011. Marking Stop Line Epoxy 24-Inch	268.000 LF	_____.	_____.
0856	SPV.0090 Special 012. Furnish and Install Watermain Pipe & Fittings 12-Inch	104.000 LF	_____.	_____.



Proposal Schedule of Items

Page 33 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28
Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0858	SPV.0090 Special 201. Piling CIP Concrete 18 X 0.50-Inch	6,070.000 LF	_____.	_____.
0860	SPV.0090 Special 301. Loop Detector Lead In Cable Special	4,967.000 LF	_____.	_____.
0862	SPV.0090 Special 302. Fiber Optic Cable 288-Count	6,489.000 LF	_____.	_____.
0864	SPV.0090 Special 303. Electrical Wire Lighting 14-3 UF Grounded	2,574.000 LF	_____.	_____.
0866	SPV.0090 Special 304. Cut in Bicycle Loop Detection	994.000 LF	_____.	_____.
0868	SPV.0090 Special 305. Boring and Jacking Casing Pipe Smooth Steel 12-Inch	153.000 LF	_____.	_____.
0870	SPV.0090 Special 306. Fiber Optic Cable 12-Count	1,002.000 LF	_____.	_____.
0872	SPV.0090 Special 307. Fiber Optic Cable 24-Count	29.000 LF	_____.	_____.
0874	SPV.0165 Special 001. Flat Stone Blocks	4,420.000 SF	_____.	_____.
0876	SPV.0165 Special 002. Directional Guidance Plates	2,908.000 SF	_____.	_____.
0878	SPV.0165 Special 003. Steel Reinforced Concrete Sidewalk 7-Inch	3,700.000 SF	_____.	_____.
0880	SPV.0165 Special 004. Stamping Asphalt	67.000 SF	_____.	_____.
0882	SPV.0165 Special 005. Pavement Support System	5,929.000 SF	_____.	_____.



Proposal Schedule of Items

Page 34 of 34

Proposal ID: 20250812006 **Project(s):** 5992-11-21, 5992-11-22, 5992-11-23, 5992-11-24, 5992-11-25, 5992-11-26, 5992-11-27, 5992-11-28

Federal ID(s): WISC 2025611, WISC 2025612, WISC 2025613, WISC 2025614, WISC 2025579, WISC 2025580, WISC 2025581, WISC 2024445

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0884	SPV.0165 Special 201. Cut Stone Boulders	4,253.000 SF	_____.	_____.
0886	SPV.0165 Special 202. Temporary Wall Wire Faced Mechanically Stabilized Earth	763.000 SF	_____.	_____.
0888	SPV.0165 Special 203. Longitudinal Grooving Bridge Deck	37,018.000 SF	_____.	_____.
0890	SPV.0180 Special 001. Enhanced Turbidity Barrier	4,400.000 SY	_____.	_____.
0892	SPV.0180 Special 002. Impermeable Membrane	219.000 SY	_____.	_____.
0894	SPV.0195 Special 001. Shoreline Revetment Stone	20,510.000 TON	_____.	_____.
Section: 0001			Total:	_____.
Total Bid:				_____.

PLEASE ATTACH ADDENDA HERE