HIGHWAY WORK PROPOSAL

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

Proposal Number: 014

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	2545-03-72	WISC 2023282	76th St (Sth 181); Intersection With Hampton Avenue	STH 181
Milwaukee	2545-09-71	WISC 2023283	C Milwaukee W Hampton Avenue; N 60th Street To N Teutonia Avenue	LOC STR
Milwaukee	2984-13-74	WISC 2023286	C Milwaukee W Center Street; Ints W/ W Lisbon Ave & N 60th St	LOC STR

ADDENDUM REQUIRED

ATTACHED AT BACK

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Proposal Guaranty Required: $250,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: March 14, 2023 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time May 24, 2024	
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)	(Bidder Signature)
(Print or Type Name, Notary Public, State Wisconsin)	(Print or Type Bidder Name)
(Date Commission Expires)	(Bidder Title)

Notary Seal

For Department Use Only

Type of Work:
Mill, Grade, Storm Sewer, Base, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Sidewalk, Landscape, Signing, Lighting, Signals, Pavement Marking.

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

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

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

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

(5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

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

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

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

B. Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

Effective with March 2010 Letting

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

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

STSP'S Revised June 28, 2022
SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 2545-03-72, 76th St (STH 181) Intersection with Hampton Avenue, Local Street, Milwaukee County; Project 2545-09-71, C Milwaukee W Hampton Avenue, N 60th Street to N Teutonia Avenue, Local Street, Milwaukee County; and Project 2984-13-74, C Milwaukee W Center Street, Ints w/ W Lisbon Ave & N 60th St, Local Street, Milwaukee County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2023 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 (20220628)

2. Scope of Work.

The work under this contract shall consist of 2545-03-72: pavement removal, grading, concrete base, concrete pavement, concrete curb and gutter, sidewalk, installation of concrete bases, monotube signal installation; 2545-09-71: HMA milling and resurfacing, concrete pavement, concrete curb and gutter, ADA curb ramps, concrete sidewalk, traffic signals, lighting, signs, traffic control, pavement markings, 2984-13-74: pavement removal, grading, concrete base, concrete pavement, concrete curb and gutter, sidewalk, curb ramps, installation of concrete bases, monotube signal installation, street lighting, pavement marking, restoration 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.

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment.

Construction ID 2545-03-72

Interim Completion and Liquidated Damages – N 76th Street shall have all work except traffic signal installation completed: November 16, 2023

Complete construction operations on N 76th Street to the stage necessary to reopen it to through traffic by November 16, 2023. Do not reopen until completing the following work: All work except traffic signal installation.

If the contractor fails to complete the work necessary to reopen N. 76th Street to traffic by November 16, 2023, the department will assess the contractor $2,185 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 17, 2023. 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.

Construction ID 2545-09-71

Interim Completion and Liquidated Damages – W. Hampton Avenue shall have all work except traffic signal installation and tree planted completed: November 16, 2023

All HMA items are to be placed and completed before November 1, 2023.

Complete construction operations on W. Hampton Avenue to the stage necessary to reopen it to through traffic by November 16, 2023. Do not reopen until completing the following work: All work except traffic signal installation and tree plantings.

If the contractor fails to complete the work necessary to reopen W. Hampton Avenue to traffic by November 16, 2023, the department will assess the contractor $2,185 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 17, 2023. 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.

Construction ID 2984-13-74

Interim Completion and Liquidated Damages – W Center Street shall have all work except traffic signal installation completed: November 16, 2023

Complete construction operations on W Center Street to the stage necessary to reopen it to through traffic by November 16, 2023. Do not reopen until completing the following work: All work except traffic signal installation.

If the contractor fails to complete the work necessary to reopen W. Center Street to traffic by November 16, 2023, the department will assess the contractor $2,185 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 17, 2023. 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 according to standard spec 108.11.

B Contractor Coordination

Coordinate the work according to standard spec 105.5.2.

Do not commence work under this contract until the required traffic control devices and markings are in place and the engineer approves the installations

Arrange and conduct weekly progress meetings. The contractor's superintendent or representative, designated materials representative, subcontractor's representatives for ongoing subcontract work or subcontract work expected to begin within the next three weeks shall attend. Provide and discuss the schedule and updates at the weekly progress meetings. Agenda items at the meeting shall include, but not be limited to, the following:

- Review of the contractor's and subcontractors' schedule. Indicate if the project is on, ahead or behind schedule. If behind indicate why, how much behind and how the project will get back on schedule.
- Utility conflicts and relocation schedule.
- Evaluation of progress to date.
- Outstanding Requests for Information (RFI's) or issues that may cause contract modifications.
- Shop drawing submittal status.
- Materials submittal status.
- Materials sampling and testing activities and results.
- Lane, road, and ramp closure schedules.
- Impacts to businesses and private properties.
- Impacts to bus routes, emergency services, postal services.
- Equipment status of orders and deliveries.

Provide proposed sequence of operations and methods of handling traffic. Submit revisions in traffic handling to the engineer for approval at least 48-hours in advance of making any changes in traffic operations.

Once the work has started on the contract, work continually until the contract work is complete. The contract will not be considered complete until all items on the contract are completed, including sodding and roadway finishing.

Obtain permission from the engineer a minimum of 48 hours prior to any construction schedule change.

If the contractor desires to work on Saturday, Sunday, or nationally recognized legal holidays, he must obtain approval from the engineer at least 24 hours in advance. If scheduling changes after approval has been obtained, notify the engineer as soon as possible, but not later than 3:00 PM of the prior day.

Except where noted, keep the intersection accessible at all times. Include any costs associated with staging operations at intersections that are to remain accessible at all times in the unit bid price for Traffic Control (Project).

Maintain or provide pedestrian access to adjacent properties, businesses, and at bus stops where necessary, as directed by the engineer.

At locations where pedestrian access will be maintained, provide temporary means to prevent grade differences greater than 1/4-inch. Bridge vertical differences using slopes of 12:1 or greater through temporary asphalt wedging or through other means approved by the engineer. Temporary asphalt wedging placed separately from mainline HMA paving operations to be paid for as temporary pedestrian surface asphalt. Work to maintain and remove temporary pavements incidental to temporary pedestrian surface asphalt

No extra cost will be allowed for “cold weather protection” as addressed in standard spec 415.13.

Store drums, buckets and other containers related to construction operations in a secure area to prevent vandalism, spills, and unwanted dumping. If an abandoned container is discovered on the project site, notify the WDNR at (800) 943-0003.

The labor and materials required to restore concrete sidewalk, after saw cutting, will be deemed incidental to the bid item 690.250, Sawing Concrete.

C Work Restrictions

C.1 General

Comply with all local ordinances which apply to work operations, including those pertaining to work during night-time hours. Furnish any and all ordinance variances issued by the municipality or required permits to the engineer in writing three working days before performing such work. Night-time and weekend work will not be allowed without written approval from the engineer and the City of Milwaukee at least three days in advance of the planned work during night-time and weekend hours.

Do not store equipment, vehicles, or materials on adjacent streets beyond the project limits without specific approval from the engineer. Park and store equipment and material only at work sites approved by the engineer.

Where the engineer in conjunction with the contractor’s work schedule has permitted lane closure(s), make a continuous effort to complete the work within said lane closure(s) in a timely manner. If, in the engineer’s judgment, the contractor’s operations fail to meet the approved schedule, permission for a full-time parking lane closure will be rescinded.

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

At locations that vehicular traffic and access will be maintained, provide temporary means to prevent grade differences greater than 2 inches between milled surfaces and existing or newly paved surfaces (both longitudinal and transverse) and temporary means to accommodate traffic across staged construction of concrete pavement. Bridge vertical differences using slopes of 12:1 or greater through milling of existing HMA pavement, through temporary asphalt wedging, through the use of wedge/tapered joint as part of mainline HMA paving, or through other means as approved by the engineer. Work to remove temporary pavements or to remove longitudinal wedge/tapered joints to be paid for as removing asphaltic surface butt joints. Temporary asphalt wedging placed separately from mainline HMA paving operations to be paid for as asphaltic surface temporary.

Maintain or provide pedestrian access to adjacent properties, businesses, and bus stops where necessary, as directed by the engineer. When closing or relocating crosswalks or sidewalks, provide detectable temporary facilities and include accessibility features consistent with existing pedestrian facilities. Construction of the new curb ramps at each intersection shall be performed in a manner to minimize pedestrian disruption to the extent practical. Provide temporary curb ramps and/or bridging between the curb and right-of-way line over new pavement and other obstructions on the sidewalk area at the entrances to buildings or as directed by the engineer. The cost to maintain pedestrian access shall be incidental to the following bid items: Concrete Sidewalk 5-Inch.

Maintain emergency access to the project area at all times.

Upon completion of the normal workday and when work is not in progress, provide a minimum 3:1 slope off the edge of existing pavements. Sloping shall consist of materials suitable for carrying a vehicle.

Add the following to standard spec 107.18 Environmental Protection:

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

Store drums, buckets and other containers related to construction operations in a secure area to prevent vandalism, spills, and unwanted dumping. If an abandoned container is discovered on the project site, notify the WDNR at (800) 943-0003.

Add the following to standard spec 108.9.4 Contract Time for Completion Date Contracts:

Work on Saturday, Sunday, or nationally recognized legal holidays will not be allowed without approval from the engineer and the City of Milwaukee at least three days in advance. If scheduling changes after approval has been obtained, notify the engineer as soon as possible, but not later than 3:00 PM of the prior day.

Northern Long-eared Bat (Myotis septentrionalis)

Northern long-eared bats (NLEB) have the potential to inhabit the project limits because they roost in trees, bridges and culverts. Tree clearing areas specified in plans are not considered suitable summer habitat for NLEB and no tree clearing restrictions apply to those locations. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

Tree clearing is limited to that which is specified in the plans. If additional trees with a 3-inch or greater diameter at breast height (dbh) need to be removed, no tree clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence or visual emergency survey. Notify the engineer if additional clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

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

D Schedule of Operations

The schedule of operations shall conform to the construction staging as shown in the construction staging plans, unless the engineer approves modifications to the schedule in writing.

Construction ID 2545-03-72

76th Street will be constructed in two stages. One lane of traffic in each direction will be maintained at all times.

Median and Intersection Access and Interim Completion Requirements

STAGE 1

Maintain left turn access during peak hours. Complete median construction prior to Monday, August 14th, 2023.

STAGE 2

Once work has begun on a corner, complete construction and restore all lanes in 10 calendar days. Complete any remaining construction with short term lane closures during off peak hours

Restore lanes at the end of each day following trench work.

Construction ID 2545-09-71

W. Hampton Avenue will be constructed in three stages. One lane of traffic in each direction will be maintained at all times

Stage 1

• Construction of the median areas on West Hampton Avenue for curb ramps, concrete curb and gutter, street lighting and signal equipment as shown in the plans. Contractor to minimize pedestrian disruption to extent possible.

Stage 2

• Construction of the south lanes of West Hampton Avenue for curb ramps, concrete curb and gutter, concrete sidewalk, concrete driveways, concrete pavement, storm sewer modifications, HMA milling and resurfacing, pavement markings and signal equipment as shown in the plans. Contractor to minimize pedestrian disruption to extent possible.

Stage 3

• Construction of the north lanes of West Hampton Avenue for curb ramps, concrete curb and gutter, concrete sidewalk, concrete driveways, concrete pavement, storm sewer modifications, HMA milling and resurfacing, pavement markings and signal equipment as shown in the plans. Contractor to minimize pedestrian disruption to extent possible.

Construction ID 2984-13-74

W. Center Street Intersections with W. Lisbon Avenue and N. 60th Street will be constructed in stages. All roadways at the intersection will have a minimum of one lane open in each direction at all times. Only close pedestrian ramps at one intersection corner at a time. Direct pedestrians around the curb ramp work area using temporary pedestrian traffic control according to the plans.

E Utility Relocation Schedule

Utility relocation work is anticipated to be completed in August 2023. Schedule road construction operations to account for utility relocation work occurring simultaneously with road construction. Contact each individual utility company to determine the current status of relocation work and their anticipated completion schedule. Refer to the Utilities section of these specifications for more information.

4. Traffic.

A General

Perform this work according to standard spec 643, the Manual on Uniform Traffic Control Devices (MUTCD), and as shown on the plans or as approved by the engineer.

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

Employ flaggers, signs, barricades, and drums as necessary to safeguard and direct traffic at all locations where construction operations may interfere with or restrict the smooth flow of traffic.

Use drums and barricades to direct vehicular and pedestrian traffic in the work zone and to protect and delineate hazards such as open excavations and abrupt drop-offs.

Coordinate traffic requirements under this project with other adjacent department or local municipality projects. Contractor is responsible for implementing and coordinating with other contractors all traffic control shown in the plans. Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

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

No operation may proceed until all traffic control devices for such work are in the proper location.

Have available at all times sufficient experienced personnel to promptly install, remove and reinstall the required traffic control devices to reroute traffic during the construction operations.

During all construction operations, maintain adequate turning provisions for vehicles, including buses and trucks, at the intersections that are to remain open.

All construction vehicles and equipment entering or leaving traffic lanes shall yield to through traffic.

The City of Milwaukee's Traffic Operations section will provide all posting of parking restrictions required to facilitate construction operations. Contact Mr. Cameron Potter at (414) 286-3276 three working days prior to the start of construction operations.

When an area of the roadway is temporarily closed to traffic, sign and delineate the portion of the roadway that is to remain open, according to Part 6 of the Manual on Uniform Traffic Control Devices (MUTCD), and the WisDOT manual titled "Guidelines for Construction, Maintenance, & Utility Operations".

Do not store equipment, vehicles or materials beyond the project limits without specific approval by the engineer.

Construction Contact Information

Designate an individual responsible for traffic control maintenance including access of local traffic, and 24-hour emergency traffic control repair. Provide the name and telephone number of this individual to the engineer.

Provide City of Milwaukee Police Department with a 24-hour emergency contact number for when traffic control maintenance is required.

In no case may any barricade, light, sign or other traffic control device be out of service for more than 2 hours. The cost to maintain and restore the above items is incidental to the bid item Traffic Control and no additional payment will be made.

Vehicle Access

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

Provide access for mail service, utility meter reading and garbage pick-up

Local access to residences and businesses within the project area shall be maintained to the maximum extent possible. No residential or commercial drive approach shall be closed without sufficient notice given to the occupants of the premise to remove their vehicles prior to removal or closing of the drive approach access. Reasonable access to abutting business locations shall be maintained at all times.

On-street parking will not be allowed during construction.

B Definitions

The following definitions shall apply to this contract:

Night-Time Periods

- 10:00 PM to 6:00 AM Monday, Tuesday, Wednesday, Thursday, and Friday

Weekend Periods

- 10:00 PM Friday to 6:00 AM Monday

C Traffic Control Description

Construction ID 2545-09-71

Pedestrian Work Zone Traffic Control - W. Hampton Avenue

With the number of residences and businesses located within the project limits, maintaining pedestrian access during construction is vital and required at all times. The construction work will require limiting the curb ramp construction at each intersection to one ramp at a time. This allows for pedestrian traffic to be maintained at the other locations within the intersections. Refer to the Traffic Control Curb Ramp Construction Sequence Detail for additional information. The curb ramp numbering sequences are as follows:

Sequence #1 – west median curb ramp cut through

Sequence #2 – east median curb ramp cut through

Sequence #3 – southeast quadrant curb ramps

Sequence #4 – southwest quadrant curb ramps

Sequence #5 – northwest quadrant curb ramps

Sequence #6 – northeast quadrant curb ramps

Stage 1

W. Hampton Avenue

- Westbound and eastbound left lane closures for median work.
- Curb ramp construction sequence #1 at all intersections. Maintain pedestrian access at all other locations.
- Switch pedestrian access to recently completed sequence #1 locations.
- Curb ramp construction sequence #2 at all intersections. Maintain pedestrian access at all other locations.
- Maintain westbound to southbound left turn lanes at signalized intersections.
- Maintain eastbound to northbound left turn lanes at signalized intersections.
- Maintain ingress and egress at driveways.

Stage 2

W. Hampton Avenue

- Eastbound traffic is crossed over the westbound side to complete project work.
- Parking lanes closed for westbound W. Hampton Avenue.
- Curb ramp construction sequence #3 at all intersections. Maintain pedestrian access at all other locations.
- Switch pedestrian access to recently completed sequence #3 locations.
- Curb ramp construction sequence #4 at all intersections. Maintain pedestrian access at all other locations.
- Maintain westbound to southbound left turn lane at signalized intersections.
- Maintain eastbound to northbound left turn lanes at signalized intersections.
- All north legs of minor intersections are restricted to right turn only onto W. Hampton Avenue.
- South legs of minor intersections – intermittent openings in the work zone to provide access to residential and business areas.

Stage 3

W. Hampton Avenue

- Westbound traffic is crossed over the newly completed eastbound side to complete project work
- Parking lanes closed for eastbound W. Hampton Avenue
- Curb ramp construction sequence #5 at all intersections. Maintain pedestrian access at all other locations

- Switch pedestrian access to recently completed sequence #5 locations
- Curb ramp construction sequence #6 at all intersections. Maintain pedestrian access at all other locations.
- Maintain westbound to southbound left turn lane at signalized intersections
- Maintain eastbound to northbound left turn lanes at signalized intersections
- All south legs of minor intersections are restricted to right turn only onto W. Hampton Avenue.
- North legs of minor intersections – intermittent openings in the work zone to provide access to residential and business areas.

5. 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 2545-03-72, N 76th Street; 2545-09-71, W. Hampton Avenue; 2984-13-74, W. Center Street; traffic and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Monday, July 3, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023 for Thanksgiving Day.

stp-107-005 (20210113)

6. Timely Decision Making Manual.

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

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

https://wisconsindot.gov/rdwy/admin/tdm.doc

stp-105-005 (20151210)

7. Utilities.

A General

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

Coordinate construction activities with a call to Digger's Hotline or a direct call to the utilities that have facilities in the area as required by statutes. Use caution to ensure the integrity of underground facilities and always maintain code clearances from overhead facilities.

There are underground and overhead utility facilities located within the project limits. Utility adjustments may be required for this construction project. The Contractor shall coordinate construction activities with a call to Digger's Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of underground and overhead facilities.

Note: Bidders are advised to contact each utility company listed in the plans prior to preparing their bid to obtain current information on the status of each utility company's work required in association with the project. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the signal poles, other utilities and any other physical structures and the construction equipment. During construction operations, keep all manholes accessible to utility companies for emergencies.

Construction ID 2545-03-72

A. AT&T Wisconsin

AT&T Wisconsin has underground communications facilities within the limits of the project. Caution the lighting conduits are planned in close proximity to AT&T manhole structure MH3006. AT&T Wisconsin has 4 manhole frame & covers within the project limits that would need to be adjusted to final paving grade during construction.

AT&T anticipates working during the construction and will take 1 working day per frame and cover (4 days total), and AT&T requires a 7 working day notice from the road contractor.

Contact Mr. Jay Bulanek of AT&T at (414) 491-2855; jb5175@att.com with concerns or questions.

B City of Milwaukee

B.1 City of Milwaukee - City Underground Conduit (CUC)

The City of Milwaukee has underground conduit facilities within the limits of the project. The City of Milwaukee has underground conduit to be relocated in the following locations;

- (NW corner) Station 9+68.5, 0.0'LT to (North median) Station 9+68.5, 44.5'LT
- (SW corner) Station 8+48.9, 30.0'LT to Station 8+48.9, 55.0'LT and Station 8+60.2, 30.0'LT to Station 8+60.2, 55.0'LT
- (SE corner) Station 8+60.9, 59.4'RT to Station 8+23.3, 48.2'RT and (east median) Station 8+63.4, 59.4'RT to Station 8+73.5, 62.2'RT

The City of Milwaukee CUC section anticipates starting work in March 2023 prior the construction date, and that all work by the City of Milwaukee will take 20 working days to complete.

Contact Mack Lee at (414) 286-0492 with comments and concerns.

For general questions regarding this utility contact Mr. Mohammad Abulughod of the City of Milwaukee at (414) 286-2767 office.

B.2 City of Milwaukee - Communications

City of Milwaukee has communications facilities within the limits of the project. The City of Milwaukee has copper facilities located throughout the project limits. There are no anticipated conflicts as the conduits that run east to west and north to south in the intersection appear to be outside of the curb adjustments.

Contact DPW/Communications Dispatch and Bryan Pawlak at (414) 286-3686 with any questions or concerns.

B.3 City of Milwaukee – Sewers

City of Milwaukee has storm sewer facilities and sanitary sewer facilities within the limits of the project.

No conflicts are anticipated on storm or sanitary sewer facilities.

Contact Zafar Yousuf at (414) 286-2467 with any questions or concerns.

B.4 City of Milwaukee – Street Lighting

City of Milwaukee has street lighting facilities within the limits of the project. Some street lighting facilities will be impacted by the proposed work. Due to the median island curb reconfiguration, temporary overhead roadway lighting will be required.

Contact the City of Milwaukee Street Lighting Section 10 days prior to the start of construction to install temporary overhead lighting. This work is anticipated to take 4 working days.

The City of Milwaukee Street Lighting section anticipates starting work 10 to 15 days prior to construction. That all work by the City of Milwaukee will take 4 working days before construction, 8 working days during construction, and 4 working days after construction.

Contact Neal Karweik, Manager, at (414) 708-4245 to coordinate street lighting work and for questions or concerns.

Report any accidental damages to street lighting facilities, as soon as possible to Street Lighting Shop Dispatcher (414) 286-5944. The contractor will be held liable for those costs.

Contact Ms. Lisa Hickman of the City of Milwaukee at (414) 286-3270 with only design/engineering concerns or questions. If you have questions or concerns about field work or work scheduling, please contact the managers noted above.

B.5 City of Milwaukee – Traffic Signals

City of Milwaukee has traffic signal facilities within the limits of the project.

There is a signalized intersection maintained by the City of Milwaukee in conflict with the proposed project, which requires the traffic signals to be reconstructed. All work will be done as part of the project and by the contractor as stated below.

Existing signal bases will be abandoned by the city for removal by contractor. The contractor shall install temporary overhead and temporary traffic signals. The contractor shall furnish and install bases, PVC conduit, cabling, and polymer concrete pull boxes. Contractor shall furnish and install fiber optic cable and inter-duct. All above ground signal work including installing traffic signal standards, monotube poles, monotube arms, traffic signal heads, signal cabinets, and any additional permanent traffic control equipment shall be furnished and installed by the paving contractor. Electrical service will be provided by the City of Milwaukee. The signal cabinet bases will be provided by the City of Milwaukee and installed by the contractor.

Traffic signal materials shall be installed on street lighting poles. The main contractor shall coordinate construction to ensure street lighting installation does not impede traffic signal installation.

Provide a 30-working day advance notice to Mr. Rudy Gutierrez of the City of Milwaukee's Traffic Signal Field Operations at (414) 286-5941 office, or (414) 708-5148 mobile, to coordinate the installation of temporary traffic signal materials as well as any City traffic signal concerns.

B.6 City of Milwaukee – Water Works

Milwaukee Water Works has facilities within the limits of the project. Inlet #102 (SW Corner) is directly above existing water main. The active 4" copper water main is inside an existing/discontinued 8" water main in N. 76th St. The elevation of the 8" water main is anticipated to be at 125.5 ft. at the centerline. Water main protection required, Item SPV.0060.005. Valve box adjustments (4) to be done as part of the contract.

Contact Mr. Dave Goldapp at (414) 286-6301 or (414) 708-2695 for coordination of the work.

C. Verizon Business

Verizon Business has communications facilities within the project limits. Verizon Business currently occupies a City of Milwaukee Light pole with small cell equipment, a fiber hand hole at the base of the pole and (2) conduits that run West from the pole, the West side of N. 76th St. Verizon Business will remove all the equipment from the existing small cell pole and dropping a new Verizon owned small cell pole on the West side of N. 76th St. The proposed pole will be replaced in the coordinates 43°06'20.7''N, 88°00'23.3''W.

Verizon anticipates to start work in March 2023 prior the construction date, and that all work will take 60 working days to complete.

Contact John Bartell at (920) 841-1263 with concerns or questions.

D. WE Energies – Electric

WE Energies – Electric has facilities within the project limits We Energies electric manhole to be adjusted during construction at the following locations:

- MH8671 at 10+41; 8.5RT. That work will take 5 working days to complete.

We Energies will require a separate 14 to 16 calendar day notice before the work site is anticipated to be available for each location of utility relocation and/or adjustment work. We Energies will also require a separate follow up notice, for each location, no less than 3 working days before the work site is anticipated to be available for relocation and/or adjustment work. No other conflicts are anticipated.

Contact Alex Dantinne at Alex.dantinne@we-energies.com or at (920) 621-6903 with concerns or questions.

E. WE Energies – Gas

WE Energies – Gas has facilities within the project limits. There are no anticipated conflicts, and no relocation of their facilities is required.

Contact Alex Dantinne at (920) 621-6903 with concerns or questions.

Construction ID 2545-09-71

A. AT&T - Communications

AT&T has overhead and underground facilities within the project limits. Existing facilities are located as follows:

- Overhead facilities along the south side of Hampton Avenue from approximately Station 285+12 RT to Station 291+23 RT, Station 294+20 RT to Station 300+47 RT, and Station 303+77 RT to Station 306+70 RT.
- Underground conduit along the north side of Hampton Avenue from approximately Station 300+47 LT to Station 355+77 LT and Station 365 +52 LT to Station 381+72 LT.
- Overhead facilities crossing Hampton Ave Drive at approximately Station 285+12, Station 288+06, Station 292+23, Station 294+20, and Station 306+70.
- Underground conduits crossing Hampton Ave at approximately Station 300+47, Station 303+77, Station 306+70, Station 303+99, Station 318+92, Station 322+51, Station 328+73, Station 336+55, Station 342+71, Station 347+07, Station 349+20, Station 355+96, Station 365+51, Station 370+40, Station 374+28, and Station 377+55.

Proposed facility adjustments to resolve conflicts are as follows:

Completed prior to construction:

- Overhead pole located at approximately Station 288+06, 34’ RT will be relocated to Station 288+04, 34’ RT.
- Overhead pole located at approximately Station 291+23, 34’ RT will be relocated to Station 291+25, 34’ RT.
- Overhead pole located at approximately Station 304+99, 34’ RT will be relocated to Station 305+01, 34’ RT.

Pole relocation will be done by We Energies – Electric and transfer of AT&T utilities shall take place after the poles are relocated. Once the poles are relocated AT&T’s facilities will be relocated within 45 days.

Manhole adjustments completed during construction:

- Manhole located at approximately Station 276+63, 1’ LT. in concrete surface, N 60th St south of median – HPKNS MH2B04.
- Manhole located at approximately Station 283+24, 1’ LT. in asphalt surface, N 57th St south of median – HPKNS MH2B05.
- Manhole located at approximately Station 289+84, 2’ LT. in asphalt surface, N 55th St south of median – HPKNS MH2B06.
- Manhole located at approximately Station 290+41, 4’ LT. in asphalt surface, N 55th St 50 ft. E of MH2B06 – HPKNS MH2B07.
- Manhole located at approximately Station 296+45, 3’ LT. in asphalt surface, N 53th St south of median – HPKNS MH2B08.
- Manhole located at approximately Station 302+91, 1’ RT. in asphalt surface, N 51st Blvd. south of median – HPKNS MH2B09.
- Manhole located at approximately Station 307+49, 8’ RT. in asphalt surface & Station 307+55, 3’ RT N 49th St. north of median – HPKNS MH2B10.
- Manhole located at approximately Station 316+12, 1’ RT in asphalt surface, N 47th St. north of median – HPKNS MH2B11.

- Manhole located at approximately Station 318+27, 1’ LT in asphalt surface, N 46th St., 65 ft. west of 46th St. – HPKNS MH2B12.
- Manhole located at approximately Station 322+08, 7’ LT in asphalt surface, N 45th St., north of median. – HPKNS MH2B13.
- Manhole located at approximately Station 328+93.5, 1’ LT in asphalt surface, N Sherman Blvd – NW quad. – HPKNS MH2B14.
- Manhole located at approximately Station 333+44, 11’ LT in asphalt surface, N 42nd St. – north of median – HPKNS MH2B15.
- Manhole located at approximately Station 336+37, 10’ LT in asphalt surface, N 41st St. – north of median – HPKNS MH2B16.
- Manhole located at approximately Station 336+57.5, 11’ LT in asphalt surface, N 41st St. – 20 ft. east of MH2B16 – HPKNS MH2B17.
- Manhole located at approximately Station 341+70, 7’ LT in asphalt surface, N Hopkins St.39th St. – HPKNS MH2B18.
- Manhole located at approximately Station 347+08, 7’ LT in asphalt surface, N Hopkins St. NE quad. – HPKNS MH2B19.
- Manhole located at approximately Station 349+20, 10’ LT in asphalt surface, N 37th St north of median – HPKNS MH2B20.
- Manhole located at approximately Station 350+13, 11’ LT in asphalt surface, N 37th St 90 ft East of MH2B20 – HPKNS MH2B21.
- Manhole located at approximately Station 355+96.5, 2’ RT in asphalt surface, N 35th St north of median – HPKNS MH2B22.
- Manhole located at approximately Station 365+67, 3’ RT in asphalt surface, N 32nd St south of median – HLTP MH1C87.
- Manhole located at approximately Station 369+14, 3’ LT in asphalt surface, N 31st St north of median – HLTP MH1C86.
- Manhole located at approximately Station 376+99, 15’ LT in asphalt surface, N 29th St north parking lane – HLTP MH1C85.

Manhole adjustments will take approximately 1 day per location.

Note: Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

AT&T contact is Jay Bulanek at (414) 491-2855 or jb5175@att.com.

B. Charter/Spectrum - Communications

Charter/Spectrum has overhead facilities within the project limits. Existing facilities are located as follows:

- Overhead facilities along the south side of Hampton Avenue from approximately Station 276+84 RT to Station 327+55 RT.
- Overhead facilities crossing Hampton Avenue at approximately Station 277+78, Station 285+12, Station 288+06, Station 294+20, Station 306+70, Station 313+36, Station 314+58, Station 325+39, Station 355+29, Station 365+43, and Station 376+63.

Spectrum facilities are on WE Energies poles along the project route.

Proposed facility adjustments to resolve conflicts are as follows:

Completed prior to construction:

- Overhead pole located at approximately Station 288+06, 34’ RT will be relocated to Station 288+04, 34’ RT.
- Overhead pole located at approximately Station 291+23, 34’ RT will be relocated to Station 291+25, 34’ RT.

- Overhead pole located at approximately Station 304+99, 34’ RT will be relocated to Station 305+01, 34’ RT.

Pole relocation will be done by We Energies – Electric and transfer of Charter/Spectrum utilities shall take place after the poles are relocated. Once the poles are relocated Charter/Spectrum facilities will be relocated within 45 days.

Note: Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

Charter Communications contact is Charles Brasile at (414) 908-4822 or (414) 430-5812 or Charles.brasile@charter.com.

C City of Milwaukee

C.1 City of Milwaukee - Communications

City of Milwaukee – Communications has copper and fiber optic cable in conduit the entire length of the project. There are several Police and Fire call boxes located throughout the project that will be removed and not replaced. They are as follows:

- Station 289+51.57, 43’ LT
- Station 292+82, 43’ LT
- Station 328+75.35, 52’ RT
- Station 336+11.34, 33’ RT
- Station 365+36, 61’ RT

Proposed facility adjustments to resolve conflicts are as follows, and will be completed prior to construction:

Call boxes will be removed prior to construction by the City of Milwaukee.

Note: Please provide the City of Milwaukee DPW Infrastructure a 10-day advance notification before project is to begin.

City of Milwaukee – DPW Infrastructure -communications Dispatch contact is Brian Pawlak at (414) 286-3686

C.2 City of Milwaukee - Sewers

City of Milwaukee – Sewers has facilities within the project limits. The existing facilities are located as follows:

- Sanitary sewer along the north and south sides of Hampton Avenue throughout the project corridor.

Proposed facility adjustments/relocations to resolve conflicts are as follows and will be completed during construction, unless otherwise noted:

- Adjust sanitary manholes to match the new finished pavement elevation. Perform this work in accordance with the requirements of Adjusting Manhole Covers.

Note: Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

City of Milwaukee Sewers contact is Zafar Yousuf at (414) 286-2467 or zyousu@milwaukee.gov.

C.3 City of Milwaukee – Underground Conduit

City of Milwaukee – Underground Conduit has facilities that run throughout the entire project.

CUC manholes are to be adjusted to the new finished pavement elevation. The contractor is to perform this work in accordance with the requirements of Adjusting CUC Manhole cover. The contractor is to install a new duct installed from an existing CUC manhole to the proposed traffic cabinet at Hopkins as shown on plans and in accordance with special provisions.

Note: Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

City of Milwaukee – Underground conduit contact is Karen Rogney (414) 286-3243 or karen.rogney@milwaukee.gov.

C.4 City of Milwaukee – Milwaukee Water Works

City of Milwaukee – Milwaukee Water Works has facilities that run throughout the entire project.

Water Valve boxes are to be adjusted to the new finished pavement elevation. The contractor is to perform this work in accordance with the requirements of Adjusting Water Valve Boxes. Prior to construction all valves will need to be located, marked, and inspected by the city.

Valve Adjustments			
LOCATION	**# OF VALVES**	**STATION**	**OFFSET**
SW CORNER OF N. 58TH ST. AND W. HAMPTON AVE.	1	279+00EB	19' RT
SOUTH LEG OF N. 58TH ST. AND W. HAMPTON AVE.	2	279+40 EB	35' RT
NORTH LEG OF N. 58TH ST. AND W. HAMPTON AVE.	2	279+85 WB	35' LT
INTERSECTION OF N. 57TH AND W. HAMPTON AVE.	1	282+10 WB	1' RT
INTERSECTION OF N. 57TH AND W. HAMPTON AVE.	1	283+30 WB	5' LT
INTERSECTION OF N. 57TH AND W. HAMPTON AVE.	1	283+20 WB	35' LT
INTERSECTION OF N. 57TH AND W. HAMPTON AVE.	1	283+30 EB	35' RT
INTERSECTION OF N. 56TH AND W. HAMPTON AVE.	1	286+75 EB	20'RT
INTERSECTION OF N. 56TH AND W. HAMPTON AVE.	1	287+10 EB	35' RT
INTERSECTION OF N. 56TH AND W. HAMPTON AVE.	1	286+50 WB	35' LT
INTERSECTION OF N. 55TH ST. AND W. HAMPTON AVE.	1	289+45 WB	0
INTERSECTION OF N. 55TH ST. AND W. HAMPTON AVE.	2	289+80 WB	35' LT
INTERSECTION OF N. 54TH ST. AND W. HAMPTON AVE.	1	291+50 EB	20' RT
INTERSECTION OF N. 54TH ST. AND W. HAMPTON AVE.	1	293+10 WB	35' LT
INTERSECTION OF N. 53RD ST. AND W. HAMPTON AVE.	1	295+55EB	20' RT
INTERSECTION OF N. 53RD ST. AND W. HAMPTON AVE.	1	295+80EB	35' RT
INTERSECTION OF N. 53RD ST. AND W. HAMPTON AVE.	2	296+00WB	0'
INTERSECTION OF N. 53RD ST. AND W. HAMPTON AVE.	1	296+25WB	35' LT
INTERSECTION OF N. 52ND ST. AND W. HAMPTON AVE.	1	298+75EB	20' RT
INTERSECTION OF N. 52ND ST. AND W. HAMPTON AVE.	2	299+10 EB	35' RT
INTERSECTION OF N. 52ND ST. AND W. HAMPTON AVE.	1	299+30WB	35' LT
INTERSECTION OF N. 51ST ST. AND W. HAMPTON AVE.	1	301+00EB	20' RT
INTERSECTION OF N. 51ST ST. AND W. HAMPTON AVE.	2	302+75EB	30' RT
INTERSECTION OF N. 51ST ST. AND W. HAMPTON AVE.	1	302+75WB	0

Valve Adjustments			
LOCATION	**# OF VALVES**	**STATION**	**OFFSET**
INTERSECTION OF N. 51ST ST. AND W. HAMPTON AVE.	1	303+30WB	5' LT
INTERSECTION OF N. 50TH ST. AND W. HAMPTON AVE.	1	305+30EB	30' RT
INTERSECTION OF N. 49TH ST. AND W. HAMPTON AVE.	1	308+00EB	20' RT
INTERSECTION OF N. 49TH ST. AND W. HAMPTON AVE.	2	308+30EB	35' RT
INTERSECTION OF N. 49TH ST. AND W. HAMPTON AVE.	1	308+30WB	0
INTERSECTION OF N. 49TH ST. AND W. HAMPTON AVE.	2	308+60WB	35' LT
INTERSECTION OF N. 48TH ST. AND W. HAMPTON AVE.	1	311+60WB	5' LT
INTERSECTION OF N. 48TH ST. AND W. HAMPTON AVE.	1	311+25EB	20' RT
INTERSECTION OF N. 48TH ST. AND W. HAMPTON AVE.	2	311+60EB	35' RT
INTERSECTION OF N. 47TH ST. AND W. HAMPTON AVE.	1	315+00WB	15' LT
INTERSECTION OF N. 47TH ST. AND W. HAMPTON AVE.	4	316+00WB	20' LT
INTERSECTION OF N. 46TH ST. AND W. HAMPTON AVE.	3	319+25WB	30' LT
INTERSECTION OF N. 46TH ST. AND W. HAMPTON AVE.	2	319+30 EB	35' RT
INTERSECTION OF N. 45TH ST. AND W. HAMPTON AVE.	3	322+00WB	20' LT
INTERSECTION OF N. 45TH ST. AND W. HAMPTON AVE.	3	323+75EB	5' RT
INTERSECTION OF N. 44TH ST. AND W. HAMPTON AVE.	1	325+50WB	10' LT
INTERSECTION OF N. 44TH ST. AND W. HAMPTON AVE.	1	325+75WB	35' LT
INTERSECTION OF N. 44TH ST. AND W. HAMPTON AVE.	2	325+60EB	35' RT
INTERSECTION OF N. SHERMAN BLVD. AND W. HAMPTON AVE.	2	329+00WB	20' LT
INTERSECTION OF N. SHERMAN BLVD. AND W. HAMPTON AVE.	1	328+80WB	5' RT
INTERSECTION OF N. SHERMAN BLVD. AND W. HAMPTON AVE.	2	328+75EB	20' RT
INTERSECTION OF N. SHERMAN BLVD. AND W. HAMPTON AVE.	3	329+75EB	30' RT
INTERSECTION OF N. SHERMAN BLVD. AND W. HAMPTON AVE.	2	330+00WB	25' LT
INTERSECTION OF N. 42ND ST. AND W. HAMPTON AVE.	2	333+25WB	25' LT
INTERSECTION OF N. 42ND ST. AND W. HAMPTON AVE.	2	336+75EB	10' RT

Valve Adjustments			
LOCATION	**# OF VALVES**	**STATION**	**OFFSET**
INTERSECTION OF N. 41ST ST. AND W. HAMPTON AVE.	3	339+50 WB	25' LT
INTERSECTION OF N. 40TH ST. AND W. HAMPTON AVE.	3	340+00EB	10' RT
INTERSECTION OF N. 40TH ST. AND W. HAMPTON AVE.	2	339+00 WB	20' LT
INTERSECTION OF N. 40TH ST. AND W. HAMPTON AVE.	2	339+50 WB	20' LT
INTERSECTION OF N. 39TH ST. AND W. HAMPTON AVE.	2	342+30 WB	20' RT
INTERSECTION OF N. 39TH ST. AND W. HAMPTON AVE.	2	342+50 WB	20' LT
INTERSECTION OF N. 39TH ST. AND W. HAMPTON AVE.	1	342+75 WB	25' LT
INTERSECTION OF N. 38TH ST. AND W. HAMPTON AVE.	2	346+00WB	20' LT
INTERSECTION OF N. 38TH ST. AND W. HAMPTON AVE.	1	346+00EB	35' RT
INTERSECTION OF N. HOPKINS ST. AND W. HAMPTON AVE.	1	347+00WB	15' LT
INTERSECTION OF N. HOPKINS ST. AND W. HAMPTON AVE.	2	347+25WB	10' LT
INTERSECTION OF N. HOPKINS ST. AND W. HAMPTON AVE.	1	347+25EB	25' RT
INTERSECTION OF N. 37TH ST. AND W. HAMPTON AVE.	2	349+10EB	35' RT
INTERSECTION OF N. 37TH ST. AND W. HAMPTON AVE.	3	349+50WB	20' LT
INTERSECTION OF N. 36TH ST. AND W. HAMPTON AVE.	1	352+60WB	25' LT
INTERSECTION OF N. 36TH ST. AND W. HAMPTON AVE.	1	352+80WB	25' LT
INTERSECTION OF N. 36TH ST. AND W. HAMPTON AVE.	1	352+30EB	35' RT
INTERSECTION OF N. 35TH ST. AND W. HAMPTON AVE.	4	355+50EB	35' RT
INTERSECTION OF N. 35TH ST. AND W. HAMPTON AVE.	2	356+00WB	35' LT
INTERSECTION OF N. 34TH ST. AND W. HAMPTON AVE.	2	358+75EB	35' RT
INTERSECTION OF N. 34TH ST. AND W. HAMPTON AVE.	1	359+00EB	20' RT
MID BLOCK OF W. HAMPTON BETWEEEN N. 34TH ST. AND N. 33RD ST.	1	362+00EB	25' RT
MID BLOCK OF W. HAMPTON BETWEEEN N. 34TH ST. AND N. 33RD ST.	2	363+00WB	25' LT
INTERSECTION OF N. 32ND ST. AND W. HAMPTON AVE.	3	365+25WB	25' LT
INTERSECTION OF N. 32ND ST. AND W. HAMPTON AVE.	3	366+00EB	30' RT
INTERSECTION OF N. 31ST ST. AND W. HAMPTON AVE.	2	368+75 EB	30' RT

Valve Adjustments			
LOCATION	**# OF VALVES**	**STATION**	**OFFSET**
INTERSECTION OF N. 31ST ST. AND W. HAMPTON AVE.	2	369+00EB	30' RT
INTERSECTION OF N. 31ST ST. AND W. HAMPTON AVE.	1	369+25WB	20' LT
INTERSECTION OF N. 30TH ST. AND W. HAMPTON AVE.	2	372+50WB	44' RT
INTERSECTION OF N. 29TH ST. AND W. HAMPTON AVE.	1	375+50WB	35' RT
INTERSECTION OF N. 29TH ST. AND W. HAMPTON AVE.	1	375+90WB	35' RT
INTERSECTION OF N. 29TH ST. AND W. HAMPTON AVE.	2	375+90WB	45' RT
MID BLOCK OF W. HAMPTON BETWEEEN N. 29TH ST. AND N TEUTONIA AVE.	1	379+75WB	35' RT
MID BLOCK OF W. HAMPTON BETWEEEN N. 29TH ST. AND N TEUTONIA AVE.	2	380+25WB	5' LT

TOTAL VALVES TO BE ADJUSTED 138

The City of Milwaukee Water Works will be relocating the following hydrants prior to construction.

Hydrant at the NE corner of W. Hampton Ave. and N. 45th St. at Station 322+89.43, 35’ LT conflicts with proposed curb ramp and sidewalk. Hydrant will be relocated to Station 323+01.5, 35’ LT avoid conflict with curb ramp and sidewalk.

Hydrant at the NW corner of W. Hampton Ave. and N. Sherman Blvd. at Station 328+67.8, 35.5 LT conflicts with proposed curb ramp and sidewalk. Hydrant will be relocated to Station 328+81.1, 74.2’ LT to avoid conflict with curb ramp and sidewalk.

Hydrant at the NE corner of W. Hampton Ave. and N. 36th St. at Station 352+89.7, 34’ LT conflicts with proposed curb ramp and sidewalk. Hydrant will be relocated to Station 352+98.3, 34’ LT avoid conflict with curb ramp and sidewalk.

Hydrant at NW corner of W. Hampton Ave. and N. 32nd St. at Station 365+23.1, 34’ LT conflicts with proposed curb ramp and sidewalk and will be removed.

Note: Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

City of Milwaukee – Milwaukee Water Works contact is MWW Control Center (414) 286-3710.

D. Milwaukee Metropolitan Sewerage District (MMSD)

D.1 General

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

Coordinate construction activities with a call to Digger’s Hotline or a direct call to MMSD that have facilities in the area as required by statutes. Use caution to ensure the integrity of underground facilities and always maintain code clearances from overhead facilities.

There are underground MMSD facilities located within the project limits. Adjustments may be required for this construction project. The Contractor shall coordinate construction activities with a call to Digger’s Hotline or a direct call to MMSD on the facilities in the area as required per statutes. Use caution to ensure the integrity of underground facilities.

Note: Bidders are advised to contact MMSD listed in the plans prior to preparing their bid to obtain current information on the status of work required in association with the project. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the signal poles, other

utilities and any other physical structures and the construction equipment. During construction operations, keep all manholes accessible to MMSD for emergencies.

D.2 Milwaukee Metropolitan Sewerage District (MMSD)

Milwaukee Metropolitan Sewerage District (MMSD) has underground facilities within the construction limits. MMSD does have surcharge level indicators, permanent, portable, and electrical conduit located within project limits. Locations are listed below:

MH 12308, Sta 281EB+8, 7'LT -Surcharge level indicator, no relocation needed.

MH 12331, Sta 282WB+62, 23'RT – Electrical conduit from west of manhole to electric box in terrace (conduit not shown in plans). Permanent flow meter (MS0407) and portable flow meter (M12331, no relocation needed.

MH 12330, Sta 287EB+96, 25' RT- Surcharge level indicator, no relocation needed.

MH 70505, Sta 302EB+64.5, 9.5'LT – Electric conduit from southwest/south of diversion chamber/MH to #5109 MMSD owned facility. Permanent flow meter, no relocation needed.

MH 12230, Sta 323WB+50, 0' LT/RT, Portable flow meter (CK0516) and permanent flow meter (MS0516). Electric conduit from west of manhole to electric box 12230 (323WB+29, 13.5' RT).

MH 12207, Sta 325WB+91.5, 3' LT - Surcharge level indicator, no relocation needed.

MH 12110, Sta 337WB+73.5, 13' LT – Portable flow meter (C12110), surcharge level indicator, no relocation needed.

MH BS0502A, Sta 365WB+8, 0' LT/RT – Permanent flow meter (BS0502), electric conduit located N/ NE of conveyance structure running north to NW handicap ramp on S 32nd St & Hampton and east across to S 32nd to NE handicap ramp. Depth unknown. No relocation needed.

MH 80024-1, Sta 366WB+12.5, 1.5' LT (not in correct location) – Surcharge level indicator

MH DC0504-2A, 368WB+61, 25' LT – Electric conduit located north of chamber running to 3726 W Hampton Ave (MMSD Owned Facility) – No relocation needed, 60" Near Service Collector MIS at north invert (NSC not shown on plans)

Proposed facility adjustments/relocations to resolve conflicts are as follows and will be completed during construction, unless otherwise noted:

- MMSD has 67 manholes within the project limits and shall be adjusted by the Contractor.

Notes:

Contractor to provide MMSD 7-day advance notification prior to handicap ramp excavation due to electrical conduit concerns. Damaged MMSD conduit will be restored at the contractor's expense.

Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

MMSD contact is Michael Lee, MMSD Inspector at (414) 225-2241 or (414) 617-1429.

E. TCA - Communications

TCA has underground facilities within the project limits. Existing facilities are located as follows:

- Underground facilities along the south side of Hampton Ave from approximately Station 351+92 RT to Station 381+72 RT.

No conflicts are anticipated.

TCA contact is Timothy Lapointe at (281) 352-3631 or TI0695@att.com .

F. WE Energies - Electric

WE Energies – Electric has underground facilities and overhead within the project limits. Existing facilities are located as follows:

- Overhead facilities along south side of Hampton Avenue from approximately Station 276+84 RT to Station 327+55 RT.
- Underground facilities along Hampton Avenue from approximately Station 327+55 to Station 381+72.

Proposed facility adjustments to resolve conflicts are as follows, and will be completed during construction:

Overhead pole located at approximately Station 288+06, 34' RT will be relocated to Station 288+04, 34' RT.

Overhead pole located at approximately Station 291+23, 34' RT will be relocated to Station 291+25, 34' RT.

Overhead pole located at approximately Station 294+20, 34' RT. We Energies requests to keep this pole in its current location and have the proposed driveway/access be constructed as two separate driveway/accesses allowing our pole to remain. Relocating this pole causes a new line angle on our overhead conductors which will force We Energies to try to obtain easements from private property owners for new pole guys, anchors, and the path our overhead conductors will follow.

Overhead pole located at approximately Station 296+50, 45' LT will be relocated to Station 296+50, 47' LT.

Overhead pole located at approximately Station 304+99 34' RT will be relocated to Station 305+01, 34' RT.

Overhead pole located at approximately Station 311+21, 34' RT will be relocated to Station 311+15, 34' RT.

Overhead pole located at approximately Station 316+91, 34' RT will be relocated to Station 316+94, 34' RT and a new guy pole will be set at Station 316+93WB, 35' LT along with a new anchor/sidewalk guy at Station 316+94WB, 43.5' LT.

Overhead pole located at approximately Station 318+92, 35' RT will be relocated to Station 318+89, 35' RT.

Overhead pole located at approximately Station 323+55, 34' RT will be relocated to Station 323+57, 34' RT.

Overhead pole located at approximately Station 325+39, 34' RT will be relocated to Station 325+42, 34' RT and the existing guy pole/anchors located at Station 325+35, 124' RT will be replaced.

Underground Facilities:

- Electric manhole covers within project limits will be adjusted to meet the proposed new pavement grades via coordination from the road contractor.

Notes:

- Contractor to provide We Energies a separate 14 to 16 calendar day notice before the work site is anticipated to be available for each location of utility relocation and/or adjustment work. We Energies will also require a separate follow up notice, for each location, no less than 3 working days before the work site is anticipated to be available for relocation and/or adjustment work.
- Anticipated Start Date: No later than April 18, 2023.

WE Energies – Electric contact is Todd Wiedoff at (262) 502-6818. For manhole adjustments please contact Paul Schilling at (414) 540- 5784.

G. WE Energies - Gas

WE Energies – Gas has underground facilities within the project limits. Existing facilities are located as follows:

- Underground facilities along the north and south side of Hampton Avenue throughout the project corridor.

WE Energies has a relocation plan it is as follows:

WE Energies – Highway stationing has been used where possible to locate new facilities.

WE Energies gas will be discontinued in place at the following locations:

329WB+76; 21LT to 329WB+81; 21LT to 40LT to 329WB+85; 44LT / 329WB+81; 26LT to 331WB+00; 28LT to 332WB+00; 31LT to 333WB+00; 34LT to 334WB+00; 35LT to 339WB+64; 35LT to 52LT / 340WB+40; 35LT to 343WB+60; 34LT to 344WB+36; 30LT / 330EB+11; 36RT to 330EB+14; 19RT to 333EB+45; 28RT to 333EB+57; 20.5RT to 342EB+64; 20.5RT to 342EB+69; 16RT to 343EB+00; 16RT to 343EB+05; 10.5RT to 345EB+26; 11RT to 346EB+83; 26RT to 347EB+88; 23.5RT to 355EB+30; 25RT / 333EB+45; 28RT to 333EB+34; 10LT to 75LT / 333EB+57; 20.5RT to 52RT / 335WB+90; 42LT to 35LT / 336EB+50; 20RT to 56LT / 336EB+66; 20RT to 46RT to 336EB+71; 46RT / 339WB+23; 35LT to 54LT / 339WB+33; 35LT to 26RT / 339EB+39; 20RT to 50.5RT /342EB+40; 20.5RT to 1.5LT to 342EB+43; 6.0LT to 48LT / 342EB+50; 20.5RT to 342EB+55; 29.5RT to 81RT /345EB+74; 13.5RT to 46.5RT to 345EB+72; 51RT to 63.5RT / 346WB+91; 67LT to 346WB+93; 68LT to 347WB+15; 1.5RT to 347WB+13; 6.5RT to 347WB+16; 14.5RT to 347WB+21; 17RT to 347WB+30; 42RT / 348EB+96; 23RT to 41RT to 348EB+87; 43.5RT to 107RT / 349EB+24; 24RT to 30RT to 349EB+21; 36RT to 83RT / 352WB+80; 55.5LT to 32.5RT / 352EB+17.5; 26RT to 46.5RT to 352EB+07; 56RT to 155RT

WE Energies gas will be installed at the following locations:

329WB+85; 44.5LT to 329WB+88; 48LT to 329WB+90; 42LT to 333WB+42; 51LT to 71LT to 333WB+35; 71LT / 333WB+42; 51LT to 41LT to 333WB+90; 41LT to 334WB+00; 42LT to 336WB+00; 42LT to 54LT / 336WB+00; 51LT to 336WB+58; 51LT to 42LT to 338WB+16; 42LT to 338WB+26; 41LT to 339WB+15; 41LT to 55LT to 339WB+73; 55LT to 41LT to 341WB+40; 41LT to 341WB+51; 42LT to 342WB+29; 42LT to 58LT to 342WB+85; 58LT to 41LT to 343WB+60; 41LT to 344WB+12; 37.5LT / 346WB+88; 72LT to 347WB+06; 78LT to 347WB+26; 29LT to 347WB+57; 29LT to 65RT / 352WB+80; 55LT to 352WB+83; 55LT to 40LT to 353WB+17; 40LT to 29RT / 355WB+84; 42LT to 29RT / 330EB+11; 37RT to 332EB+62; 40.5RT to 333EB+00; 38RT to 336EB+72; 39RT to 336EB+85; 38RT to 339EB+89; 38RT to 340EB+10; 40.5RT to 344EB+94; 40.5RT to 345EB+66; 38.5RT to 65.5RT to 346EB+20; 70RT to 38.5RT to 347EB+29; 38.5RT to 347EB+43; 40RT to 347EB+58; 40RT to 20RT to 349EB+37; 19RT to 23RT to 349EB+59; 23RT to 20RT to 355EB+03; 22.5RT to 51RT to 335EB+23; 51RT to 72RT / 333EB+55; 39RT to 54RT to 333EB+58; 54RT / 336EB+72; 39RT to 46RT / 339EB+35; 38RT to 52RT / 342EB+15; 48LT to 40RT / 342EB+46; 40.5RT to 82RT to 342EB+54; 82RT / 348EB+83; 19RT to 109RT to 348EB+88; 109RT / 348EB+83; 80.5RT to 349EB+38; 80RT / 352EB+02; 22RT to 156RT to 352EB+07; 156RT

WE Energies gas will be discontinued in place at the following locations:

355EB+30; 25RT to 73RT / 355EB+26; 25RT to 355EB+52; 25RT to 355EB+67; 10RT to 364EB+85; 10RT to 9RT / 358EB+53; 10RT to 70RT

WE Energies gas will be installed at the following locations:

-355EB+30; 73RT to 355EB+83; 73RT to 8.5RT / 355EB+75; 8.5RT to 356EB+19; 8.5RT to 4RT to 356EB+24; 4RT / 356EB+19; 8.5RT to 39RT to 359EB+93; 39RT to 49LT / 359EB+93; 9RT to 364EB+85; 9RT / 358EB+44; 39RT to 69RT to 358EB+54; 69RT

WE Energies gas will be discontinued in place at the following locations:

365EB+28; 78RT to 366EB+03; 78RT / 365EB+96; 130RT to 88RT to 366EB+03; 88RT to 29RT to 366EB+18; 13RT to 366EB+44; 12RT to 15RT to 368EB+20; 10.5RT to 368EB+28; 17.5RT to 370EB+36; 5.5RT (alignment switch) 370WB+36; 15RT to 377WB+16; 17RT / 369EB+24; 81RT to 15RT / 371WB+97; 45RT to 17RT / 372WB+90; 34RT to 17RT / 372WB+87; 17RT to 32LT / 371WB+64; 32LT to 375WB+44; 32LT / 375WB+58; 89RT to 17RT / 376WB+21; 89RT to 17RT

WE Energies gas will be installed at the following locations:

365EB+25; 78RT to 130RT to 365EB+97; 130RT / 365EB+28; 93RT to 369EB+23; 85RT to 90RT / 369EB+20; 85RT to 61RT to 370EB+36; 52RT (alignment switch) 370WB+36; 61RT to 370WB+40; 61RT to 53RT to 377WB+23; 53RT / 371WB+92; 53RT to 94RT to 371WB+96; 102RT / 375WB+26; 53RT to 33LT / 375WB+58; 92RT to 375WB+61; 92RT to 53RT / 376WB+22; 92RT to 376WB+19; 92RT to 53RT

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

Contact 1 (800) 261-5325 for gas emergencies, to identify if gas facilities are live and gas valve box adjustments.

Proposed facility adjustments to resolve conflicts are as follows, and will be completed during construction:

WE Energies Gas Valve adjustments during construction at the following locations:

-V24318 at 282EB+33.5; 35.5RT / V24324 at 296EB+02; 44.5LT / V24319 at 299WB+26; 46.5LT / Test Valve at 305EB+06; 51RT / V24288 at 309EB+29; 46LT / V24289 at 309WB+81; 44.5LT / V24382 at 325EB+58; 38LT / V24474 at 328EB+40; 39RT / V14162 at 328EB+67; 46RT / V24473 at 328WB+72; 44LT / V14148 at 329WB+88; 48.5LT / V14159 at 329EB+86; 51RT / Valve at 328WB+72; 43LT / Valve at 329WB+88; 48.5LT / Valve at 328EB+68; 46RT / Valve at 329EB+86; 51RT / Valve at 333EB+55; 48RT / Valve at 336EB+72; 42.5RT / Valve at 336WB+00; 43.5LT / Valve at 339EB+36; 46.5RT / Valve at 342WB+19; 42LT / Valve at 342EB+46; 50RT / Valve at 342WB+88; 41LT / Valve at 347WB+51; 29LT / Valve at 348EB+82; 45RT / Valve at 355EB+82; 49RT / Valve at 365WB+29; 44.5LT / Valve at 371WB+93; 59.5RT / Valve at 377WB+58; 44RT

Anticipated Start Date:

December 15, 2022 (Pending work plan, permit, and easement approval) Gas Valve adjustments during construction upon proper notice given

Note: WE Energies will require a separate 14 to 16 calendar day notice before the work site is anticipated to be available for each location of utility relocation and/or adjustment work. WE Energies will also require a separate follow up notice, for each location, no less than 3 working days before the work site is anticipated to be available for relocation and/or adjustment work. For gas valve adjustments please contact Adam Kelly at adam.kelly@we- energies.com or (414)-940-9127.

WE Energies – Gas contact is Alex Dantinne at (920) 621-6903 or Alex.Dantinne@we-energies.com.

Construction ID 2984-13-74

A. AT&T

AT&T Wisconsin has underground facilities in the project limits. There are no anticipated conflicts, and no relocation of their facilities is required.

Contact Mr. Jay Bulanek at (414) 491-2855 or jb5175@att.com with concerns or questions.

B. Charter/Spectrum

Charter/Spectrum has overhead facilities attached to WE-Energies poles within the project limits. There are no anticipated conflicts.

Contact Mr. Charles Brasile of Spectrum/Charter at (414) 908-1343 with concerns or questions.

C. City of Milwaukee

C.1 City Underground Conduit (CUC)

The City of Milwaukee City Underground Conduit utility has facilities within the project limits. There are no anticipated conflicts.

Contact Karen Rogney at (414) 286-3243 with comments and concerns.

C.2 Communications

The City of Milwaukee Communications utility has facilities within the project limits. There are no anticipated conflicts.

Contact Communication Dispatch at (414) 286-3686 with any questions or concerns.

C.3 Sewer

The City of Milwaukee has sewer facilities within the limits of the project. There are no anticipated conflicts.

Contact Zafar Yousuf at (414) 286-2467 with any questions or concerns.

C.5 Traffic Signals

There is an existing signalized intersections within the limits of the project.

Existing pull boxes and signal bases will be discontinued by the City for removal by contractor. The contractor shall install temporary overhead and temporary traffic signals. The contractor shall furnish and install bases, PVC conduit, cabling and polymer concrete pull boxes. All above ground signal work including installing traffic signal standards, monotube poles, monotube arms, traffic signal heads, signal cabinets, and any additional permanent traffic control equipment will be furnished and installed by the

paving contractor. Electrical service for all signals will be provided by the City of Milwaukee. The signal cabinet bases will be provided by the City of Milwaukee and installed by the contractor.

Prior to construction, the City of Milwaukee will install temporary overhead and temporary traffic signals as needed; and remove/relocate conflicting traffic signal equipment including traffic signal poles, standards, and cabinets. Additionally, all existing vehicle loop detectors within the project limits will be abandoned by City of Milwaukee forces prior or in coordination with paving operations. This work will take 30 working days to complete.

The City of Milwaukee forces will remove all temporary traffic signal facilities in coordination with paving operations.

Provide a 30-working day advance notice to Mr. Rudy Gutierrez of the City of Milwaukee's Traffic Signal Field Operations at (414) 286-5941 office, or (414) 708-5148 mobile, to coordinate the installation of temporary traffic signal materials as well as any City traffic signal concerns.

C.6 Water Works

The City of Milwaukee has water facilities within the limits of the project. No adjustments are planned for their water mains and water laterals. There are no anticipated conflicts.

Contact Mr. Josh Iwen at (414) 286-3640 for coordination of the work.

D. Milwaukee Metropolitan Sewerage District (MMSD)

MMSD has underground sewer facilities within the project limits. No conflicts are anticipated.

Contact Michael Lee of MMDS at (414) 225-2241 with concerns or questions.

D.1 General

Coordinate construction activities with a call to Digger's Hotline or a direct call to MMSD that have facilities in the area as required by statutes. Use caution to ensure the integrity of underground facilities and always maintain code clearances from overhead facilities.

There are underground MMSD facilities located within the project limits. Adjustments may be required for this construction project. The Contractor shall coordinate construction activities with a call to Digger's Hotline or a direct call to MMSD on the facilities in the area as required per statutes. Use caution to ensure the integrity of underground facilities.

Note: Bidders are advised to contact MMSD listed in the plans prior to preparing their bid to obtain current information on the status of work required in association with the project. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the signal poles, other utilities and any other physical structures and the construction equipment. During construction operations, keep all manholes accessible to MMSD for emergencies.

E. WE Energies – Electric

WE Energies - Electric has underground and Overhead facilities within the project limits. There are no anticipated conflicts.

Exercise caution when excavating near any gas facilities. It is imperative that the highway contractor contact WE Energies before removing any electrical underground cables, to verify that they have been discontinued and carry no electrical current. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut, or drill an unmarked facility without explicit consent from WE Energies. Contractor must call the WE Energies 24-hour Dispatch lines to arrange this verification.

WE Energies Electric Dispatch, 1(800) 622-4797

Contact Kristen Rongholt at (262) 502-6818 with questions or concerns.

F. WE Energies – Gas

WE Energies – Gas has facilities within the limits of the project. There are no anticipated conflicts.

There is to be exercised caution when excavating near any gas facilities. It is imperative that the highway contractor contact WE Energies before removing any gas facilities, to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut, or drill an unmarked facility without explicit consent from WE Energies. Call WE Energies 24-hour Dispatch lines to arrange this verification.

WE Energies Gas Dispatch, 1 (800) 261-5325

Contact Alex Dantinne at (920) 621-6903 with questions or concerns.

8. Notice to Contractor - Railroad Coordination - Wisconsin and Southern Railroad Company

The Wisconsin and Southern Railroad Company operates the track crossings located approximately 275' east of N. 29th Street on W. Hampton Avenue. This rail line provides freight deliveries to Benz Oil Company approximately two times per week. Benz Oil is located adjacent to the crossing on W. Hampton Avenue.

Contractor shall not place work zone traffic control devices within 25 feet of the rail crossings.

Contractor shall coordinate with WSOR for any additional requirements for maintaining the Work Zone Traffic Control area within the track crossing.

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 Wisconsin and Southern Railroad Company.

Notify evidence of the required coverage, and duration to Amanda Haggerty, Office Administrator; 1890 E Johnson Street, Madison, WI 53704; Telephone (608) 620-2048; E-mail: ahaggerty@watcocompanies.com.

Also send a copy to the following: Jason Kazmierski, SE Region Railroad Coordinator, 141 N. Barstow Street, Waukesha, WI 53188; Telephone (262) 548-6700; E-mail jason.kazmierski@dot.wi.gov.

Include the following information on the insurance document:

- Project ID: 2545-09-71
- Work Performed: Traffic Control

#	Route Name	City/County	Crossing ID	RR Subdivision	RR Milepost
1	Hampton Avenue	Milwaukee/Milwaukee	387303E	Milwaukee Sub	93.31
2	Hampton Avenue	Milwaukee/Milwaukee	387178U	Milwaukee Sub	94.13
3	Teutonia Avenue	Milwaukee/Milwaukee	387180V	Milwaukee Sub	94.22

A.2 Train Operation

#	Passenger Train Volume	Passenger Train Speed	Freight Train Volume	Freight Train Speed	Frequency	Switch Train Comment*
1	N/A	N/A	6	10	Daily	There are switch trains in addition to through trains
2	N/A	N/A	2	10	Weekly	There are switch trains in addition to through trains
3	N/A	N/A	2	10	Weekly	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

Todd Mulrooney, Superintendent of Engineering, Wisconsin and Southern Railroad Co.; 1890 East Johnson Street, Madison, WI 53704; Telephone (608) 620-2045; E-mail tmulrooney@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.

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. None.

A.5 Temporary Grade Crossing

If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 at least 40 days prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

stp-107-026 (202200602)

10. Work By Others.

Construction ID 2545-09-71

B.5 City of Milwaukee – Street Lighting

City of Milwaukee – Street Lighting has overhead facilities within the project limits.

Before Construction:

The City of Milwaukee Street lighting personnel will install temporary 2200 V overhead cable on wood poles on W. Hampton Avenue between N. 60th Street (Station 278+00) and N. 48th Street (Station 311+50). The contractor will be responsible for 240/480V overhead cable on wood poles for the remainder of the project limits (Station 312+00 to Station 376+00).

After Construction:

City of Milwaukee Street lighting personnel will make final connections to place contractor installed street lighting items in service.

Note: Contractor to provide the utility 14-day advance notification and 3-day reminder notification that the site is ready for adjustment.

City of Milwaukee – Street Lighting contact is Neal Karweik at (414) 286-5943 or (414) 708-4245.

Construction ID 2984-13-74

B.4 City of Milwaukee - Street Lighting

The City of Milwaukee has street lighting facilities within the limits of the project.

Contact Neal Karweik, Manager, at (414) 708-4245 to coordinate temporary street lighting work and for questions or concerns.

Contact Mark MacRae, Manager, at (414) 708-0434 to coordinate permanent street lighting work and for questions or concerns.

Report any accidental damages to street lighting facilities, as soon as possible to Street Lighting Shop Dispatcher (414) 286-5944. The contractor will be held liable for those costs.

Contact Ms. Lisa Hickman of the City of Milwaukee at (414) 286-3270 with only design/engineering concerns or questions. If you have questions or concerns about field work or work scheduling, please contact the managers noted above.

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

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

stp-105-001 (20140630)

12. Referenced Construction Specifications.

Construct the work enumerated below conforming to the City of Milwaukee standards. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

Some traffic signal and street lighting work is required to be executed according to City of Milwaukee Standards. The contact person for acquiring said standards is provided in the articles where the reference to City of Milwaukee Standards is made.

stp-105-002 (20130615)

13. 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 month 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 two weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

14. Weekly Coordination Meeting.

The contractor shall arrange and conduct weekly meetings between the department, local officials, utilities, and subcontractors to discuss the project schedule of operations, traffic control, erosion control and any unresolved conflicts. The first meeting shall be held prior to the start of work under this contract.

15. Protection of Concrete

Supplement standard spec 415.3.14 as follows:

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

Include the cost for providing the finisher(s), the necessary equipment, and materials in the contract unit price for each concrete item.

16. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

Motorized equipment shall be operated in compliance with all applicable local, state, and federals laws and regulations relating to noise levels. All motorized construction equipment will be required to have mufflers constructed according to manufacturer's specifications, and it will be required that mufflers and exhaust systems be maintained in good working order, free from leaks or holes.

Upon request the City of Milwaukee's Department of Neighborhood Services (DNS), may issue a construction noise variance, to work outside of the hours listed above.

Department of Neighborhood Services
4001 South 6th Street
(414) 286-2268

17. Concrete Identification Stamping

Stamp ends of all monolithic portland cement concrete surfaces with a stamp bearing the contractor's name and the year of construction. Make all letters 2-inches in height.

Include the cost of this work in the contract unit price for other Portland cement concrete items and no additional payment will be made.

18. Erosion Control.

Perform this work according to the requirements of standard spec 107.20 and as hereinafter supplemented.

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

The contractor shall prepare and submit an erosion control implementation plan (ECIP) for the project including borrow sites, material disposal sites, dust control, and dewatering according to Chapter TRANS 401 requirements. The erosion control implementation plan shall supplement information shown on the plans and shall not reproduce it. The erosion control implementation plan will identify how the contractor intends to implement the project's erosion control plan.

Provide the ECIP 14 calendar days prior to the pre-construction conference. Provide 1 copy of the ECIP to WisDOT and 1 copy of the ECIP to the WDNR Liaison (Ms. Kristina Betzold; WDNR Southeast Region Headquarters; 1027 W. St Paul Ave.; Milwaukee, WI 53233). Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-top soiling to minimize the period of exposure to possible erosion. Do not implement the ECIP until it has been approved by the department.

Re-topsoil graded areas, as designated by the engineer, immediately after grading is completed within those areas. Place sod, as designated by the engineer, within 5 calendar days after placement of topsoil.

When performing roadway cleaning operations, the contractor shall use equipment having vacuum or water spray mechanism to eliminate the dispersion of dust. If vacuum equipment is employed, it shall have suitable self-contained particulate collectors to prevent discharge from the collection bin into the atmosphere.

19. Tree and Planting Area Protection.

All cutting for the removal of sod and soil in order to establish a finished grade within 6 feet of existing trees must be done manually if necessary.

No construction equipment, cars, trucks, materials shall be parked or stored on any median or tree borders on this project or adjacent roadways.

Root foundations must remain adequate to withstand heavy windstorms.

Root systems of street trees shall not be cut for the installation of any type of cable by the contractor or city department. Contact the Forestry Division at (414) 708-2428 for directional boring specification.

Caution shall be used during the construction process to avoid damage to the roots, trunks, and branches of all street trees. Damage caused to any street tree or irrigation system will be repaired by the City of Milwaukee's Forestry Division and the costs of repair, rejuvenation, and/or value lost will be billed to the contractor or credited against the contract at the option of the city.

At locations where the contractor has not complied with the forestry special requirements stated in the special provisions above, and the maximum clearance was exceeded or a thin form was not used, a minimum credit to the city of $50.00 per location will be taken. The credit will increase in proportion to the excess distance beyond clearance allowed. The credit will be $50.00 for each 2-inch increment or part thereof in excess of the initial clearance allowed. Any damage to the tree's structure totaling 15 percent of the trees value will be billed on a prorated basis. If, in the opinion of the City of Milwaukee's Forestry Division, the tree has been damaged to the point that it warrants removal, the credit that will be taken will be equal to $100.00 per inch diameter of the tree. A field measurement will be taken to determine the tree size.

20. Notice to Contractor – Sod and Fertilizer.

Topsoil and sod are to be applied after sidewalk. Fertilizer is to be applied to sod five days after sod is placed.

21. Notice to Contractor – Restoration within Right-of-Way.

Excavation and restoration for installation of sidewalk will be limited to 9 inches, beyond the back (high side) of the sidewalk, unless otherwise shown on the plans. This includes installation of sod lawn. Contractor must stay within right-of-way unless a construction permit has been obtained.

22. Notice to Contractor – Survey.

Digital design file information/existing surface data, including design surface DTMs and/or coordinate system GPS information will not be available for this project. As such, machine grading will not be possible.

All survey work necessary to stake out and construct all portions of this project will be measured and paid for under the staking bid items designated in this contract.

23. Notice to Contractor – Milwaukee County Transit System

Construction ID 2545-03-72

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits: 76 (76th Street) and 11 (Hampton Avenue).

MCTS bus stops within/adjacent to this project:

- Northbound 76th & Hampton (SEC) #6456, Route 76
  - MCTS sign affixed to light pole (light pole owned by others)
- Southbound 76th & Hampton (NWC) #6330, Route 76
  - MCTS sign affixed to light pole (light pole owned by others)
- Eastbound Hampton & 76th farside (S/S of Hampton ~80-ft E/of 76th) #952, Rt 11
  - MCTS sign and post
  - MCTS bus shelter – B2 style 10-ft x 2.5-ft half-shelter
- Westbound Hampton & 76th (NEC slip lane island) #935, Rt 11
  - MCTS sign affixed to light pole (light pole owned by others)
  - MCTS bus shelter – B1 style 10-ft x 5-ft full shelter

Impacts to MCTS Routing

Invite MCTS to all coordination meetings between the contractor, the department, local officials and business stakeholders to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Notify MCTS at least 10 business days prior to beginning project work to provide advance notice of potential service impacts.

Impacts to MCTS Signs and Posts

Notify MCTS of work impacting MCTS signs and posts in advance 5 or more business days. MCTS signs include “Bus Stop” and turn disc signs. MCTS signs are mounted on MCTS posts; and on assets owned by others including streetlights, traffic regulators, crosswalk and street signposts. MCTS shall be responsible for MCTS sign and post removal and installation, with the contractor granting access to MCTS personnel to perform such work. Signs stating “No Parking Bus Stop” are the under the ownership and responsibility of City of Milwaukee.

Impacts to Bus Shelters

Contractor work may require bus shelter(s) to be temporarily removed. MCTS will be responsible for the removal and reinstallation of bus shelters, with the contractor granting access to MCTS personnel for the purposes of reinstallation before new pavement opens to vehicular traffic. Notify MCTS in advance 10 business days for each site-specific bus shelter location.

Non-detour Service Suspension at MCTS Bus Stops

Occasions may arise when work requires neither a detour nor the physical alteration of MCTS bus stop assets, but out of passenger safety requires MCTS to temporarily suspend service at a bus stop location. Notify MCTS in advance 5 business days of site-specific occasion, and MCTS will sign appropriately to instruct passengers to board at a secondary location. Notify MCTS upon completion of work. MCTS will resume service to any suspended bus stop locations when it is safe to do so.

MCTS contact:

Armond Sensabaugh
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1728
asensabaugh@mcts.org

Construction ID 2545-09-71

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits: 60 (60th St), Blue Line (60th St.-Hampton Ave.), 11 (Hampton Ave.), 30 (Sherman Blvd.), 35 (Hopkins St.), 19 (32nd St.), 12 (Teutonia Ave.), and Purple Line (Teutonia-Hampton Avenue).

Impacts to MCTS Routing

Invite MCTS to all coordination meetings between the contractor, the department, local officials and business stakeholders to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Notify MCTS at least 10 business days prior to beginning project work to provide advance notice of potential service impacts.

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MCTS contacts:

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

Armond Sensabaugh
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1728
asensabaugh@mcts.org

Construction ID 2984-13-74

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits; Route 22 (Center Street) and Route 60 (60th Street).

During construction of any pedestrian accommodations, at or adjacent to bus stops, MCTS will coordinate with the contractor to determine where temporary bus stops should be installed. MCTS crews will remove the existing bus stop signs/shelters and MCTS will install temporary signs. The removal of the sidewalk, at any existing bus stop location must occur in conjunction with the placement of the temporary surface that will provide access to the temporary bus stop location. Contact MCTS at least ten working days before relocation of bus stops is required:

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

Armond Sensabaugh
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205

24. Notice to Contractor – Contamination Beyond Construction Limits.

Construction ID 2545-03-72

The department completed a review of environmental documents and databases for soil and groundwater contamination at locations within this project where excavation is required. The review indicated that petroleum-contaminated soil and groundwater may be present beyond the project limits at the following locations:

- STH 181 (N. 76th St.) Station 102+00 to 103+80, beyond project limits left (Byron's Tire & Battery, 7623 W. Hampton Ave., WDNR BRRTS No. 03-41-518333, Closed LUST Site, WDNR BRRTS No. 02-41-576521, Open ERP Site).
- STH 181 (N. 76th St.) Station 102+00 to 103+80, beyond project limits right (Superamerica #4153, 4780 N. 76th St., WDNR BRRTS No. 03-41-307284, Closed LUST Site, WDNR BRRTS No. 03-41-151697, Closed LUST).
- STH 181 (N. 76th St.) Station 103+80 to 105+50, beyond project limits left (Amoco Station #19669, 4801 N. 76th St., WDNR BRRTS No. 03-41-003395, Closed LUST Site).
- STH 181 (N. 76th St.) Station 103+80 to 105+50, beyond project limits right (Regency Auto Mart Property, 4800 N. 76th St., WDNR BRRTS No. 03-41-546829, Closed LUST Site, WDNR BRRTS No. 02-41-552223, Closed ERP Site).

Contaminated soil and/or groundwater may be present at sites 1, 2, 3, and 4; however, the contamination is expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations near these locations to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soil and/or groundwater is encountered near 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:

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

Construction ID 2545-09-71

The department completed a review of environmental documents and databases for soil and ground water contamination at locations within this project where excavation is required. The review indicated that contaminated soil and groundwater may be present at the following locations:

Intersection of W. Hampton Avenue and N. Hopkins Street

Station 345WB+50 to 346WB+50, beyond project limits left (Former Shells Oil Co., 3800 W. Hampton Ave., WDNR BRRTS No. 03-41-002073, Closed LUST Site).

Station 346EB+25 to 346EB+90, beyond project limits right (Metro PCS, 4779-4793 N. Hopkins St., 1930s Sanborn maps indicate two gasoline USTs were present near the east side of the site).

Intersection of W. Hampton Avenue and N 32nd Street

Station 365 EB+80 to 365EB+25, beyond project limits right (Vacant Lot, 4769 N. 32nd St., 1929 and 1950Sanborn maps indicate one gasoline tank was present near the southeast corner of the intersection.

Contaminated soil and/or groundwater may be present at the sites listed above. The contamination is expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations near these locations to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soils and/or groundwater is 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:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, PO Box 798, Waukesha, WI 53187-0798
Phone:	(262) 548-6705
Fax:	(262) 548-6891
E-mail:	andrew.malsom@dot.wi.gov

107-100 (20050901)

25. Removing Trees, Item 204.9060.S.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Trees in each, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S	Removing Trees	EACH

stp-204-025 (20150630)

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

A Description

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

Perform work according to standard spec 460 and as follows.

B Materials

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

C Construction

C.1 Test Strip

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

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

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

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

During production for the test strip, obtain sufficient HMA mixture for three-part split samples from trucks prior to departure from the plant. Collect three split samples during the production of test strip material. Perform sampling from the truck box and three-part splitting of HMA according to CMM 836. These three samples will be randomly selected by the engineer from each *third* of the test strip tonnage (T), excluding the first 50 tons:

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

C.1.1.2 Density

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

C.1.2 Field Tests

C.1.2.1 Density

For contracts that include STSP 460-020 QMP Density in addition to PWL, a gauge comparison according to CMM 815.7 shall be completed prior to the day of test strip construction. Daily standardization of gauges on reference blocks and a project reference site shall be performed according to CMM 815.8. A standard count shall be performed for each gauge on the material placed for the test strip, prior to any additional data collection. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation according to Appendix A. The two to three readings for the five locations across the mat for each of two zones shall be provided to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset will be used to adjust raw density readings of the specific gauge and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer; therefore, a separate value shall be determined for each layer of each mix placed over a differing underlying material for the contract. This constitutes correlation of that individual gauge for the given layer. Two gauges per team are not required to be onsite daily after completion of the test strip. Any data collected without a correlated gauge will not be accepted.

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

The target maximum density to be used in determining core density is the average of the three volumetric/mix Gmm values from the test strip multiplied by 62.24 lb/ft^3. In the event mix and density portions of the test strip procedure are separated, or if an additional density test strip is required, the mix portion must be conducted prior to density determination. The target maximum density to determine core densities shall then be the Gmm four-test running average (or three-test average from a PWL volumetric-only test strip) from the end of the previous day's production multiplied by 62.24 lb/ft^3. If no PWL production QV volumetric test is to be taken in a density-only test strip, a non-random QV test will be

taken according to 460.2.8.3.1.4 as modified in HMA Pavement Percent Within Limits (PWL) QMP and if non-conforming to C.2.1 herein, follow corrective action outlined in 460.2.8.2.1.7(4) as modified in HMA Pavement Percent Within Limits (PWL) QMP.

Exclusions such as shoulders and appurtenances shall be tested and reported according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. However, unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

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

Theoretical maximum specific gravities of each mixture sample will be obtained. Bulk specific gravities of both gyratory compacted samples and field cores shall be determined. The bulk specific gravity values determined from field cores shall be used to calculate a correction factor (i.e., offset) for each QC and QV nuclear density gauge. The correction factor will be used throughout the remainder of the layer.

C.2 Acceptance

C.2.1 Volumetrics

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

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

[1] Asphalt content more than -0.5% below the JMF will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction.

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

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

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

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

C.2.2 Density

Compact all layers of test strip HMA mixture according to Table 460-3.

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

C.2.3 Test Strip Approval and Material Conformance

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

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

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

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

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

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

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

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

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

D Measurement

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

E Payment

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

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

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

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

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

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

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

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x ($65/ton)*

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

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

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL

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

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27. HMA Pavement Percent Within Limits (PWL) QMP.

A Description

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

B Materials

Conform to the requirements of standard spec 450, 455, and 460 except where superseded by this special provision. The department will allow only one mix design for each HMA mixture type per layer required for the contract, unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip in accordance with HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics and HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density articles at no additional cost to the department.*Replace standard spec 460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater with the following:*

460.2.8.2.1.3.1 Contracts under Percent within Limits

(1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.

(2) Obtain random samples and perform tests according to this special provision and further defined in Appendix A: *Test Methods & Sampling for HMA PWL QMP Projects*. Obtain HMA mixture samples from trucks at the plant. For the sublot in which a QV sample is collected, discard the QC sample and test a split of the QV sample.

(3) Perform sampling from the truck box and three-part splitting of HMA samples according to CMM 836. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per sublot. All QC samples shall provide the following: QC, QV, and Retained. The contractor shall take possession and test the QC portions. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. Additional sampling details are found in Appendix A. Label samples according to CMM 836. Additional handling instructions for retained samples are found in CMM 836.

(4) Use the test methods identified below to perform the following tests at a frequency greater than or equal to that indicated:

- Blended aggregate gradations in accordance with AASHTO T 30
- Asphalt content (AC) in percent determined by ignition oven method according to AASHTO T 308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6
- Air voids (V_a) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R35.

(5) Lot size shall consist of 3750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three sublot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

(6) Conduct field tensile strength ratio tests, without freeze-thaw conditioning cycles, on each qualifying mixture in accordance with CMM 836.6.14. Test each full 50,000-ton production increment, or fraction of an increment, after the first 5,000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are below the spec limit, notify the engineer. The engineer and contractor will jointly determine a corrective action.

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

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

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

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

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

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

(4) For any additional non-random tests outside the random number testing conducted for volumetrics, the data collected will not be entered into PWL calculations. Additional QV tests must meet acceptance limits or be subject to production stop. If the department's non-random test does not conform to the acceptance limits, the retained sample will be tested by the BTS lab. If the BTS results also do not meet the acceptance limits, the material will be considered unacceptable as described in (5) below.

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

Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:

460.2.8.3.1.2 Personnel Requirements

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

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

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

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

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

460.2.8.3.1.4 Department Verification Testing Requirements

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

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

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

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (Va) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
- Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

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

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

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

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

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

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

i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.

ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested for Gmm, Gmb, and Asphalt Content by the department's regional lab for the remaining 4 sublots of the lot which the F- and t-tests indicate non-comparable datasets. The department's regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at $2,000/lot under the HMA Regional Lab Testing administrative item.

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

i. If referee testing results in an increased calculated pay factor, the department will pay for the cost of the additional referee testing.

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

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

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

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

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination

(1) The engineer will determine the target maximum density using department procedures described in CMM 815. The engineer will determine density as soon as practicable after compaction and before placement of subsequent layers or before opening to traffic.

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

(3) A lot is defined as 7500 lane feet with sublots of 1500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. The contractor is required to complete three tests randomly per sublot and the department will randomly conduct one QV test per sublot. A partial quantity less than 750 lane feet will be included with the previous sublot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded in accordance with CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

(4) The three QC locations per sublot represent the outside, middle, and inside of the paving lane. The QC density testing procedures are detailed in Appendix A.

(5) QV nuclear testing will consist of one randomly selected location per sublot. The QV density testing procedures will be the same as the QC procedure at each testing location and are also detailed in Appendix A.

(6) An HTCP-certified nuclear density technician (NUCDENSITYTEC-I) shall identify random locations and perform the testing for both the contractor and department. The responsible certified technician shall ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly, or at the completion of each lot.

(7) For any additional tests outside the random number testing conducted for density, the data collected will not be entered into PWL calculations. However, additional QV testing must meet the tolerances for material conformance as specified in the standard specification and this special provision. If additional density data identifies unacceptable material, proceed as specified in CMM 815.11.

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

460.3.3.3 Analysis of Density Data

(1) Analysis of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV).

(2) As random density locations are paved, the data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. A rolling window of 3 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-4, then lots 3-5, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025.

i. If the F- and t-tests indicate variances and means compare, the QC and QV data sets are determined to be statistically similar and QC data will be used for PWL and pay adjustment calculations.

ii. If the F- and t-tests indicate variances or means do not compare, the QV data will be used for subsequent calculations.

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

(4) Density resulting in a PWL value less than 50 or not meeting the requirements of 460.3.3.1 (any individual density test result falling more than 3.0 percent below the minimum required target maximum density as specified in standard spec Table 460-3) is unacceptable and may be subject to remove and replace at no additional cost to the department, at the discretion of the engineer.

i. Replacement may be conducted on a sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material will replace the original data for the sublot.

ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]

iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 815.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

D Measurement

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

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

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

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

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

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

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

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

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x ($65/ton)*

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

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

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL

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

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

AC Binder Relative to JMF	Pay Adjustment / Sublot
-0.4% to -0.5%	75% [1]
More than -0.5%	50% [1] [2]

[1] Any material resulting in an asphalt binder content more than 0.3% below the JMF AC content will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

[2] Any material resulting in an asphalt binder content more than 0.5% below the JMF AC content shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

Note: PWL value determination is further detailed in the PWL Production Spreadsheet Instructions located in the *Project Info & Instructions* tab of the HMA PWL Production spreadsheet.

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28. Appendix A.

Test Methods & Sampling for HMA PWL QMP Projects.

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

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

WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip

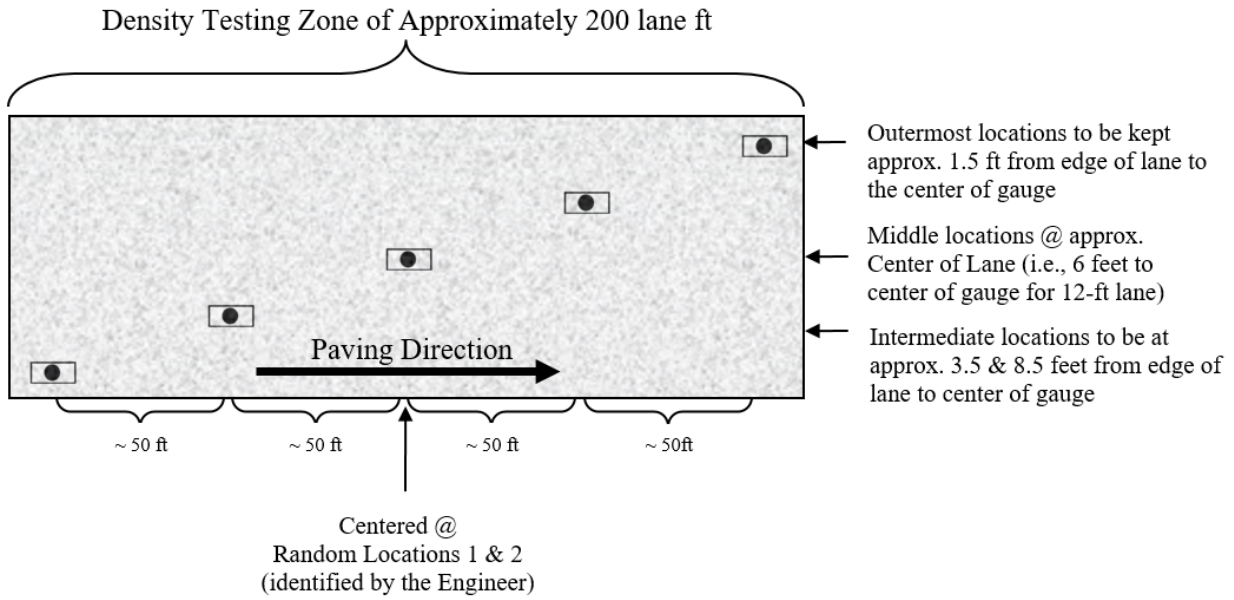


Figure 1: Nuclear/Core Correlation Location Layout

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

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

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

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

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

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

(a) (b)

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

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

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

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

Each core 100 or 150 mm (4 or 6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. The contractor is responsible for thoroughly drying cores obtained from the mat according to AASHTO R79 as modified by CMM 836.6.10 prior to using specimens for in-place density determination according to AASHTO T 166 as modified by CMM 836.6.5.

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

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

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

For nuclear density testing of the pavement beyond the test strip, QC tests will be completed at three locations per sublot, with a sublot defined as 1500 lane feet. The three locations will represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown by the dashed longitudinal lines in Figure 3 and random numbers will be used to identify the specific transverse location within each third according to CMM 815). Longitudinal locations within each sublot shall be determined with 3 independent random numbers. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive or disincentive. Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Figure 2 above. Each location requires a minimum of two readings per gauge. The density gauge orientation for the first test will be with the source rod towards the direction of paving. QV nuclear testing will consist of one randomly selected location per sublot. The QV is also comprised of two one-minute readings oriented 180 degrees from one another. For both QC and QV test locations, if the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge. The sublot density testing layout is depicted in Figure 4, with QC test locations shown as solid lines and QV as dashed.

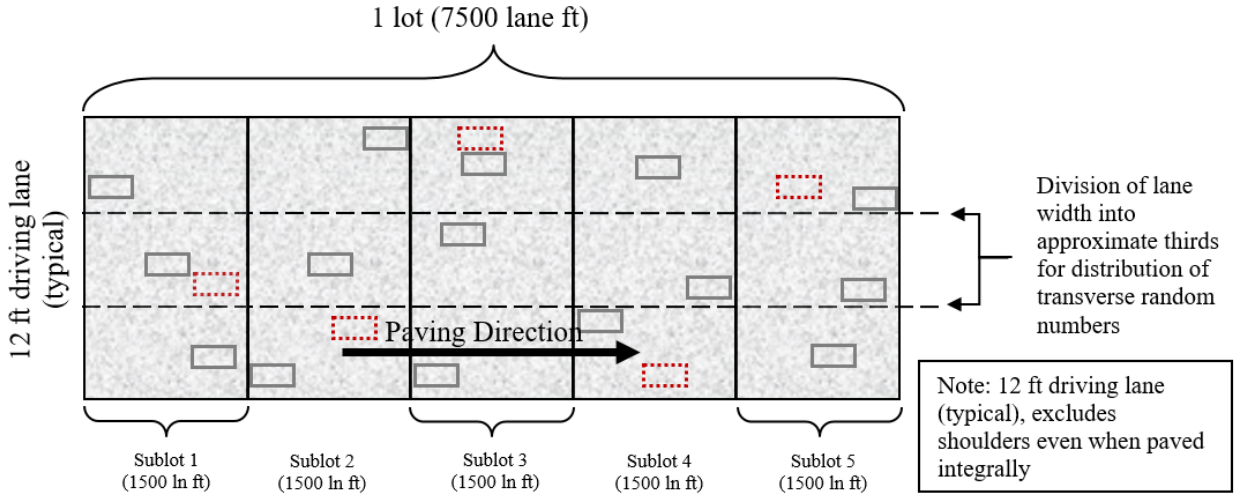


Figure 4: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

Raw nuclear density data must be shared by both parties at the end of each shift. Paving may be delayed if the raw data is not shared in a timely manner. QC and QV nuclear density gauge readings will be statistically analyzed according to Section 460.3.3.3 of the HMA PWL QMP SPV. (Note: For density data, if F- and t-tests compare, QC data will be used for the subsequent calculations of PWL value and pay determination. However, if an F- or t-test does not compare, the QV data will be used in subsequent calculations.)

Investigative cores will be allowed on the approaching side of traffic outside of the footprint locations. Results must be shared with the department.

The QV density technician is expected to be onsite within 1 hour of the start of paving operations and should remain on-site until all paving is completed. Perform footprint testing as soon as both the QC and QV nuclear density technician are onsite and a minimum of once per day to ensure the gauges are not drifting apart during a project. Footprint testing compares the density readings of two gauges at the same testing location and can be done at any randomly selected location on the project. Both teams are encouraged to conduct footprint testing as often as they feel necessary. Footprint testing does not need to be performed at the same time. At project start-up, the QV should footprint the first 10 QC locations. Individual density tests less than 0.5% above the lower limit should be communicated to the other party and be footprint tested. Each gauge conducts 2 to 3 1-minute tests according to CMM 815 and the final results from each gauge are compared for the location. If the difference between the QC and QV gauges exceeds 1.0 pcf (0.7 percent) for an average of 10 locations, investigate the cause, check gauge moisture and density standards and perform additional footprint testing. If the cause of the difference between gauge readings cannot be identified, the regional HMA Coordinator will consult the RSO, the regional PWL representative and the BTS HMA unit to determine necessary actions. If it is agreed that there is a gauge comparison issue, perform one of the following 2 options:

New Gauge Combination

- All 4 gauges used on the test strip must footprint 10 locations on the pavement. Pavement placed on a previous day may be used.
- The results of the footprint testing will be analyzed to see if a better combination of acceptable gauges is available.
- If a better combination is found, those gauges should be used moving forward.
- If a better combination cannot be found, a new gauge correlation must be performed. (see below).

Re-correlation of Gauges

- Follow all test strip procedures regarding correlating gauges except the following:
    - The 10 locations can be QC or QV random locations.
    - The locations used may have been paved on a previous day.
- Retesting with gauges must be done immediately prior to coring.
- New gauge offsets will be used for that day's paving and subsequent paving days. New gauge offsets will not be used to recalculate density results from prior days.

Density Dispute Resolution Procedure

Density results may be disputed by the contractor on a lot by lot basis if one of the following criteria is met:

- The lot average for either QC or QV is below the lower specification limit.
- The lot average for QC is different from the lot average for QV by more than 0.5%.

In lieu of using density gauges for acceptance of the lot, the lot will be cored in the QV locations. The results of the cores from the entire lot will be entered in the spreadsheet and used for payment. If the pay factor increases, the contractor will only receive the additional difference in payment for the disputed lot. If the pay factor does not increase, the department will assess the contractor $2,000 for the costs of additional testing.

Notify the engineer in writing before dispute resolution coring. Immediately prior to coring, QC and QV will test the locations with nuclear density gauges.

Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next day after completion of the lot, except if the next day is not a working day, then they shall be cut within 48 hours of placement. Prepare cores and determine density according to AASHTO T166 as modified in CMM 836.6.5. Dry cores after testing. Fill core holes according to Appendix A and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing. If a core is damaged at the time of coring, immediately take a replacement core 1 foot ahead of the existing testing

location in the direction of traffic at the same offset as the damaged core. If a core is damaged during transport, record it as damaged and notify the engineer immediately.

Sampling for WisDOT HMA PWL QMP Production

Sampling of HMA mix for QC, QV and Retained samples shall conform to CMM 836 except as modified here.

Delete CMM 836.4 Sampling Hot Mix Asphalt and replace with the following to update sublot tonnages:

Sampling Hot Mix Asphalt

At the beginning of the contract, the contractor determines the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (sublot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP SPV. A test sample is obtained randomly from each sublot. Each random sample shall be collected at the plant according to CMM 836.4.1 and 836.4.2. The contractor must submit the random numbers for all mix sampling to the department before production begins.

Example 1

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

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

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

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

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

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

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

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

QC, QV, and retained samples shall be collected for all test strip and production mixture testing using a three-part splitting procedure according to CMM 836.5.2.

Calculation of PWL Mainline Tonnage Example

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

Solution:

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

stp-460-055 (20220107)

29. HMA Pavement Longitudinal Joint Density.

A Description

This special provision incorporates longitudinal joint density requirements into the contract and describes the data collection, acceptance, and procedure used for determination of pay adjustments for HMA pavement longitudinal joint density. Pay adjustments will be made on a linear foot basis, as applicable per pavement layer and paving lane. Applicable longitudinal joints are defined as those between any two or more traffic lanes including full-width passing lanes, turn lanes, or auxiliary lanes more than 1,500 lane feet, and those lanes must also include the 460.2005 Incentive Density PWL HMA Pavement bid item. This excludes any joint with one side defined as a shoulder and ramp lanes of any length. If echelon paving is required in the contract, the longitudinal joint density specification shall not apply for those joints. Longitudinal joints placed during a test strip will be tested for information only to help ensure the roller pattern will provide adequate longitudinal joint density during production. Longitudinal joint density test results collected during a test strip are not eligible for pay adjustment.

Pay is determined according to standard spec 460, HMA Pavement Percent Within Limits QMP special provisions, and as modified within.

B Materials

Compact all applicable HMA longitudinal joints to the appropriate density based on the layer, confinement, and mixture type shown in Table B-1.

TABLE B-1 MINIMUM REQUIRED LONGITUDINAL JOINT DENSITY

Layer	Percent of Target Maximum Density			
	Unconfined		Confined	
	LT and MT	HT	LT and MT	HT
Lower (on crushed/recycled base)	88	89	89.5	90.5
Lower (on Concrete/HMA)	90	90	91.5	91.5
Upper	90	90	91.5	91.5

C Construction

Add the following to standard spec 460.3.3.2:

(5) Establish companion density locations at each applicable joint. Each companion location shares longitudinal stationing with a QC or QV density location within each sublot and is located transversely with the center of the gauge 6-inches from the final joint edge of the paving area. Sublot and lot numbering remains the same as mainline densities, however, in addition to conventional naming, joint

identification must clearly indicate “M” for inside/median side of lane or “O” for outside shoulder side of lane, as well as “U” for an unconfined joint or “C” for a confined joint (e.g., XXXXX-MC or XXXXX-OU).

(6) Each joint will be measured, reported, and accepted under methods, testing times, and procedures consistent with the program employed for mainline density, i.e., PWL.

(7) For single nuclear density test results greater than 3.0% below specified minimums per Table B-1 herein, perform the following:

a) Testing at 50-foot increments both ahead and behind the unacceptable site

b) Continued 50-foot incremental testing until test values indicate higher than or equal to -3.0 percent from target joint density.

c) Materials within the incremental testing indicating lower than -3.0 percent from target joint density are defined as unacceptable and will be handled with remedial action as defined in the payment section of this document.

d) The remaining sublot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

Note: If the 50-foot testing extends into a previously accepted sublot, remedial action is required up to and inclusive of such material; however, the results of remedial action must not be used to recalculate the previously accepted sublot density. When this occurs, the lane feet of any unacceptable material will be deducted from the sublot in which it is located, and the previously accepted sublot density will be used to calculate pay for the remainder of the sublot.

(8) Joint density measurements will be kept separate from all other density measurements and entered as an individual data set into Atwood Systems.

(9) Placement and removal of excess material outside of the final joint edge, to increase joint density at the longitudinal joint nuclear testing location, will be done at the contractor’s discretion and cost. This excess material and related labor will be considered waste and will not be paid for by the department. Joints with excess material placed outside of the final joint edge to increase joint density or where a notched wedge is used will be considered unconfined joints.

(10) When not required by the contract, echelon paving may be performed at the contractor’s discretion to increase longitudinal joint density and still remain eligible to earn incentive. The additional costs incurred related to echelon paving will not be paid for by the department. If lanes are paved in echelon, the contractor may choose to use a longitudinal vertical joint or notched wedge longitudinal joint as described in SDD 13c19. Lanes paved in echelon shall be considered confined on both sides of the joint regardless of the selected joint design. The joint between echelon paved lanes shall be placed at the centerline or along lane lines.

(11) When performing inlay paving below the elevation of the adjacent lane, the longitudinal joint along the adjacent lane to be paved shall be considered unconfined. Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

D Measurement

(1) The department will measure each side of applicable longitudinal joints, as defined in Section A of this special provision, by the linear foot of pavement acceptably placed. Measurement will be conducted independently for the inside or median side and for the outside or shoulder side of paving lanes with two applicable longitudinal joints. Each paving layer will be measured independently at the time the mat is placed.

E Payment

Add the following as 460.5.2.4 Pay Adjustment for HMA Pavement Longitudinal Joint Density:

(1) The department will administer longitudinal joint density adjustments under the Incentive Density HMA Pavement Longitudinal Joints and Disincentive Density HMA Pavement Longitudinal Joints items. The department will adjust pay based on density relative to the specified targets in Section B of this special provision, and linear foot of the HMA Pavement bid item for that sublot as follows:

PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

PERCENT SUBLOT DENSITY ABOVE/BELOW SPECIFIED MINIMUM	PAY ADJUSTMENT PER LINEAR FOOT
Equal to or greater than +1.0 confined, +2.0 unconfined	$0.40
From 0.0 to +0.9 confined, 0.0 to +1.9 unconfined	$0
From -0.1 to -1.0	$(0.20)
From -1.1 to -2.0	$(0.40)
From -2.1 to -3.0	$(0.80)
More than -3.0	*REMEDIAL ACTION* [1]

[1] Remedial action must be approved by the engineer and agreed upon at the time of the pre-pave meeting and may include partial sublots as determined and defined in 460.3.3.2(7) of this document. If unacceptable material is removed and replaced per guidance by the engineer, the removal and replacement will be for the full lane width of the side of which the joint was constructed with unacceptable material.

(2) The department will not assess joint density disincentives for pavement placed in cold weather because of a department-caused delay as specified in standard spec 450.5.2(3).

(3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.

The department will pay incentive for longitudinal joint density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL

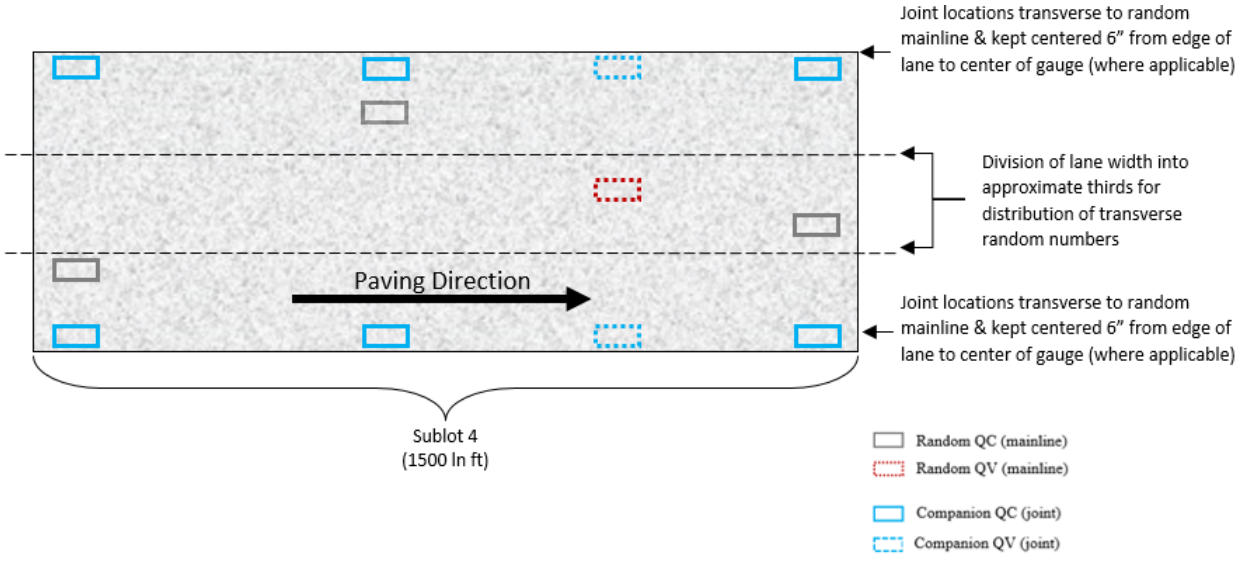
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

Appendix

WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

Each QC and QV density location must have a companion density location at any applicable joint. This companion location must share longitudinal stationing with each QC or QV density location and be located transversely with the center of the gauge 6-inches from the edge of the paving area.

For HMA Pavement Percent Within Limits QMP projects, this appears as follows:



Further Explanation of *PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY*

Table

	Confined				
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	Pay Adjust
Mainline Target (SS 460-3)	91.0	92.0	93.0	93.0	-
Confined Target (mainline - 1.5)	89.5	90.5	91.5	91.5	-
Equal to or greater than +1.0	≥ 90.5	≥ 91.5	≥ 92.5	≥ 92.5	$0.40
From 0.0 to +0.9	90.4 - 89.5	91.4 - 90.5	92.4 - 91.5	92.4 - 91.5	$0
From -0.1 to -1.0	89.4 - 88.5	90.4 - 89.5	91.4 - 90.5	91.4 - 90.5	($0.20)
From -1.1 to -2.0	88.4 - 87.5	89.4 - 88.5	90.4 - 89.5	90.4 - 89.5	($0.40)
From -2.1 to -3.0	87.4 - 86.5	88.4 - 87.5	89.4 - 88.5	89.4 - 88.5	($0.80)
More than -3.0	< 86.5	< 87.5	< 88.5	< 88.5	REMEDIAL ACTION

	Unconfined				
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	Pay Adjust
Mainline Target (SS 460-3)	91.0	92.0	93.0	93.0	-
Unconfined Target (Mainline -3.0)	88.0	89.0	90.0	90.0	-
Equal to or greater than +2.0	≥ 90.0	≥ 91.0	≥ 92.0	≥ 92.0	$0.40
From 0.0 to +1.9	89.9 - 88.0	90.9 - 89.0	91.9 - 90.0	91.9 - 90.0	$0
From -0.1 to -1.0	87.9 - 87.0	88.9 - 88.0	89.9 - 89.0	89.9 - 89.0	($0.20)
From -1.1 to -2.0	86.9 - 86.0	87.9 - 87.0	88.9 - 88.0	88.9 - 88.0	($0.40)
From -2.1 to -3.0	85.9 - 85.0	86.9 - 86.0	87.9 - 87.0	87.9 - 87.0	($0.80)
More than -3.0	< 85.0	< 86.0	< 87.0	< 87.0	REMEDIAL ACTION

stp-460-075 (20210113)

30. 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)

31. 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, 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)

32. Forestry – City of Milwaukee.

All new trees will be planted in the Spring of the year.

All newly planted trees will have nine care cycles beginning in May through October.

If constructed per the referenced plans, the following guidelines are recommended:

1) **Sidewalk Construction**:

   A. The root system on the walk side of the tree shall be cut not deeper than 9” below the finished grade of the new walks, and not more than 5” from the edge of the new walk. Roots in the walk area shall be removed only to a depth 9” below grade of the new walk.

   B. When replacing walks adjacent to the following trees, a slip or thin form must be used. Additionally, soil disturbance in the tree border should be limited to not more than ¼” beyond the edge of the new walk: Station 311+86N/S; Station 340+87N/S

   C. Adjacent to the following trees, the new walk should be arced: Station 281+08N/S; Station 282+02N/S; Station 293+98N/S; Station 315+06N/S; Station 324+25N/S; Station 332+40N/S; Station 278+40S/S; Station 324+99S/S; Station 337+63S/S

   D. Where the sidewalks are to be narrowed, all old sidewalks should be removed prior to any root cutting. If necessary, the root system should be cut within ¼” of the edge of the proposed new walk, and not more than 9” below the finished grade of the new walk.

   E. Sidewalks are to be removed, and roots cut, by use of **hand implements only**.

2) **Carriage Walk Construction**:

   A. When constructing or replacing carriage walks, **roots shall not be cut by means of mechanical root cutting machines**. If root removal is essential to carriage walk replacement, **roots shall be manually cut with hand implements**. Roots shall be removed not deeper than 9” below the finished grade of the new carriage walk.

3) **Curb, Gutter and Road Construction**:

A. The root system on the curb side shall be cut not more than **2 inches** behind the back edge of the new curb, and not more than **18 inches** in depth when constructing the new curb and gutter.

B. The root system on the curb side shall be cut not more than ¼" from the back edge of the new curb, and a ¼" slip or thin form, or slip form paver, shall be used for the following trees: Station 332+52S/S.

C. Exposed tree roots shall be covered with mulch and watered from a period immediately following curb and gutter removal until the area is backfilled following construction.

4) General:

A. All cutting for the removal of sod and soil in order to establish a finished grade within 6 feet of existing trees must be done manually if necessary.

B. No construction equipment, cars, trucks, or materials shall be parked or stored on any median or tree border on the project site or adjacent roadways.

C. Root foundations must remain adequate to withstand heavy windstorms.

D. Root systems of street trees shall not be cut for the installation of any type of cable by the contractor or city department. Contact the Forestry Division at (414) 708-2428 for directional boring specifications.

E. Caution should be used during the construction process to avoid damages to the roots, trunks, and branches of all street trees. Damage caused to any street tree or irrigation system will be repaired by the Forestry Division and the costs of repair, rejuvenation, and/or value lost will be billed to the contractor or credited against the contractor at the option of the city.

F. At locations where the contractor has not complied with the Forestry Special Requirements stated above, and maximum clearance was exceeded or a thin form was not used, a minimum credit to the city of $50.00 per location will be taken. The credit will increase in proportion to the excess distance beyond clearance allowed. The credit will be $50.00 for each two-inch increment or part thereof in excess of the initial clearance allowed. Any damage to the tree's structure totaling fifteen percent of the trees value will be billed on a prorated basis. If, in the opinion of the Forestry Division, the tree has been damaged to the point that it warrants removal, the credit that will be taken with be equal to **$100.00** per inch diameter of the tree. A field measurement will be taken to determine the tree size.

33. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of $500.00 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.

stp-632-005 (20070510)

34. Signs Type II Reflective SH, Item 637.2220; Signs Type II Reflective F, Item 637.2230.

A Description

Furnish and install signs according to the plans and standard spec 637, except as follows:

B Materials

According to the plans and standard spec 637, except as follows:

The contractor shall affix the installation date sticker on back of sign in lower right corner. Stickers will be provided at pre-construction meeting or by the Inspector.

C Construction

According to the plans and standard spec 637, except as follows:

The contractor shall be responsible for recording the location, type, and installation date of the signage using the provided Sign Installation Log (L-101).

D Measurement

The department will measure Signs Type II Reflective SH and Signs Type II Reflective F by the square foot unit of measure.

E Payment

Payment includes furnishing Signs Type II Reflective SH and Signs Type II Reflective F.

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

ITEM NUMBER	DESCRIPTION	UNIT
637.2220	Signs Type II Reflective SH	SF
637.2230	Signs Type II Reflective F	SF

Payment is full compensation for furnishing labor, equipment, coordination, and all materials and incidentals necessary to complete the work.

The Sign Installation Log (L-101) shall be complete and submitted for all signing locations prior to finalization of sign item payments.

35. Notice to Contractors – Traffic Signals.

Construction ID 2545-09-71

There are six existing signalized intersections within the limits of the project at the following intersections with Hampton Avenue:

- North 51st Street
- North Sherman Boulevard
- North Hopkins Street
- North 37th Street
- North 35th Street
- North 32nd Street

Existing pull boxes and signal bases will be abandoned by the city for removal by contractor. The contractor shall install temporary overhead and temporary traffic signals, with the exceptions of North 51st Street and North Sherman Boulevard, which already have temporary signals operating. The contractor shall furnish and install bases, PVC conduit, cabling, and polymer concrete pull boxes. All above ground signal work including installing traffic signal standards, monotube poles, monotube arms, traffic signal heads, signal cabinets, and any additional permanent traffic control equipment shall be furnished and installed by the paving contractor. Electrical service for all signals will be provided by the City of Milwaukee. The signal cabinet bases will be provided by the City of Milwaukee and installed by the contractor.

Traffic signal materials shall be installed on street lighting poles. The main contractor shall coordinate construction to ensure street lighting installation does not impede traffic signal installation.

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

The following applies to disposal of High Pressure Volume (HVS) luminaires. Disposal of LED will be done by the City of Milwaukee after the contractor delivers the material to the City under the bid item Remove Poles.

A Description

This special provision describes the detachment and packaging of HVS removed under this contract for disposal as hazardous materials.

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://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/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.

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://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/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 is full compensation for detachment, handling, packaging, labeling and scheduling disposal with the hazardous waste vendor; and scrapping and disposal of all other materials.

37. Temporary Traffic Signals for Intersections (Location), Item 661.0201.

Modify standard spec 661.0201 with the following:

661.2.1 General

The City of Milwaukee will furnish control cabinet, signal controller, and NEMA monitor.

The City of Milwaukee will provide the temporary electrical service for temporary traffic signals.

The City of Milwaukee-Traffic is the applicable electrical utility

All wood poles are paid for under the temporary street light item.

38. Connect Storm Sewer to Existing Structure, Item SPV.0060.001.

A Description

The work includes removing the existing storm sewer pipe from existing structures and installing the new storm sewer pipe and coring an existing structure for connecting a new storm sewer pipe to an existing structure as shown in the plans and preparing the structure for connection modifications.

B Materials

For concrete connections furnish grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for class III ancillary concrete as specified in standard spec 716.

C Construction

Excavate the existing structure to the required connection point. Reuse existing connection points in structures if possible. Otherwise core new connection points into structures and connect new storm sewer pipe. Pack hemp around the pipe through the structure and place grade A concrete per the construction detail.

D Measurement

The department will measure Connect Storm Sewer to Existing Structure as a unit for 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.0060.001	Connect Storm Sewer to Existing Structure	EACH

Connect Storm Sewer to Existing Structure, as measured above, is full compensation for furnishing all materials, equipment required, excavation, and removing; for disposing of all materials; for removing existing pipe from existing structure; for coring new pipe connection locations in existing structures; for repair of existing connections that were removed and not usable for new connection.

39. Expose Existing Utility, Item SPV.0060.002

A Description

The work includes exposing existing utilities and intercepting conduit as shown in the plans and preparing the exposed location for rerouting modifications.

B Materials

Furnish granular backfill that conforms to standard spec 209.

C Construction

General

Obtain engineer approval prior to performing the work, submitting all requests for exposing existing utilities in writing. Coordinate utility exposures with the engineer and notify the utility owner or their agents of this work two working days in advance so that they may be present when the work commences.

Excavation

Expose all utility locations within a given location to a minimum depth of 18-inches below the bottom of each utility. Excavate in a manner that protects the integrity of the utilities and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand digging. Notify the utility owner promptly if damage or interruption of service occurs. Repair all damage caused to such utilities resulting from negligence or carelessness at own expense.

Identify horizontal locations of each exposed utility. The utility location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the utility shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

Backfilling

Upon completion of the utility exposure, restore the location in kind to its original condition. Use granular backfill, conforming to standard spec 209, to backfill the exposed utility locations to the subgrade elevation except for areas located within local streets. All granular material placed to an elevation of 18-inches above each exposed utility shall consist substantially of sand with all particles retained on a 1-inch (25.0 mm) sieve removed. The remaining granular material shall conform to the specifications for backfill for trench excavation. Alternate restoration methods may be used upon written approval from the engineer.

Documentation

Provide documentation to the engineer and include sketches of the utility locations tied to known features in the plans. Document the size and/or diameter, composition, and a description of each utility and the location of the elevation with respect to each utility noted. Supply digital photographs of the uncovered utility to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Expose Existing Utility as a unit for each location, acceptably completed. A location may have multiple utilities located within the same exposure area. An exposure area will include all utilities within 6 lateral feet of each other, and payment will only be made for one unit regardless of the number of utilities exposed. Payment is based on a single unit of work for each 6-foot increment of exposure measured vertically from the existing ground elevation located above the existing utility to a point 18 inches below the exposed utility.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Expose Existing Utility	EACH

Expose Existing Utility, as measured above, is full compensation for furnishing all excavation, and removing; for disposing of all materials; for locating all utilities within each respective location; for providing documentation and photographs of utility locations to the engineer; for furnishing all maintenance of the location during construction; for furnishing all traffic control, safety barriers, and steel plating required.

40. Curb Ramp Grading, Shaping and Finishing, Item SPV.0060.003.

A Description

This special provision describes excavating, grading, filling, shaping, compacting, and finishing as necessary to construct each curb ramp location conforming to standard spec 205, 208, 211, 305, 625, 627, 629, and 630, as the plans show, and as follows.

B Materials

Furnish materials as the plans show and engineer directs conforming the standard specs for the following:

- Common excavation 205.2
- Borrow 208.2
- Base Aggregate Dense 305.2
- Topsoil or Salvaged Topsoil 625.2
- Fertilizer 629.2
- Sod Lawn 631.2
- Sod Water 631.2

C Construction

Construct the final subgrade and base for the curb ramp at the locations on the plans and as the engineer directs. Restore disturbed areas with topsoil or salvaged topsoil, fertilizer, seed, and mulch.

Dispose of all surplus and unsuitable material as specified in standard spec 205.3.12.

D Measurement

The department will measure Curb Ramp Grading, Shaping, and Finishing as each individual plan 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.0060.003	Curb Ramp Grading, Shaping, and Finishing	EACH

Payment is full compensation for all excavating, grading, placing borrow, base aggregate, shaping, and compacting, and for providing and placing topsoil or salvaged topsoil, fertilizer, seed, and mulch at each curb ramp location.

Sidewalk removal, construction staking, curb ramp detectable warning field, and concrete sidewalk will be paid under respective contract bid items.

SER-602-001 (20170629)

41. Adjusting Water Valve Boxes, Item SPV.0060.004.

A Description

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

B Materials

All material for the adjustment of these facilities shall meet City of Milwaukee specifications and will be provided by the City of Milwaukee by contacting Andray DeCordova, Milwaukee Water Works, at (414) 708-3209 (or Tim Garczynski, Milwaukee Water Works at (414) 286-6301). If there is contractor damage, the materials must still be provided by the City of Milwaukee, however, in this case, the Contractor will be charged for all materials. Materials furnished by the City of Milwaukee and not used on the project shall be delivered back to DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th Street.

C Construction

The contractor, or authorized project representative, shall contact Milwaukee Water Works prior to the start of construction. The city will locate, mark, inspect and repair all water service boxes and water valve boxes within the limits of the project prior to commencement of work on the project. All water service boxes and water valve boxes within the project limits shall be adjusted to proposed elevations by the contractor using materials meeting city specifications. Throughout the duration of the project, the

contractor must ensure that all water service boxes, and water valve boxes are adequately located and identified by blue paint, and that at all times, all water appurtenances remain accessible for operation by city forces. Exercise caution working adjacent to water facilities to avoid damage and ensure accessibility. Upon completion of the contract, the city will inspect all water facilities to ensure the water boxes are clean, properly aligned, and accessible. The contractor shall be responsible to make identified repairs and adjustments, and if any repairs or adjustments are made by the city, the cost will be charged to the contractor.

D Measurement

The department will measure Adjusting Water Boxes 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.0060.004	Adjusting Water Valve Boxes	EACH

Payment is full compensation for all excavation, backfilling, disposal of surplus materials, water box adjustments, water box clean-out, and restoration of the work site; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

42. Water Main Protection, Item SPV.0060.005.

A Description

This special provision describes protecting existing water mains from newly constructed storm drainage facilities. No structures will be allowed over the existing water main or hydrant branch with less than 18” of vertical out-to-out clearance. Alternate drainage structures shall be used to provide minimum sewer-water clearances required by Wisconsin DNR.

B Materials

Contractor shall furnish and install materials as detailed on the construction plans and in the Construction section below.

C Construction

Construct drainage structure located above and across an existing water main, by utilizing materials and joints that are watertight. For all catch basins and inlets that have less than 24” out-to-out of horizontal clearance, the following water main protections shall be made:

- The catch basins and inlets shall be altered to provide 18” of vertical clearance to the water mains or hydrant branches.
- The catch basins and inlets shall be wrapped with 2 layers of 8 mil polyethylene around the base and extending 1ft vertically on all sides of the drainage structure.

D Measurement

The department will measure Water Main Protection 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.0060.005	Water Main Protection	EACH

Payment is full compensation for protecting existing water mains; and for all excavation, backfilling, disposal of surplus materials, restoration of the work site, and for furnishing all labor, equipment, materials, tools and incidentals necessary to complete the work.

43. Field Facilities Office Space, Item SPV.0060.006.

A Description

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

The field office shall be located within one half mile of the project limits.

B Materials

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

Replace standard spec 642.2.1(4) with the following:

Provide and maintain suitable interior sanitary facilities conforming to State and local health requirements, in clean and good working condition, and stock with sanitary supplies for the duration of the contract. Furnish office space in an existing office building or existing building converted to office space with a minimum of 600 square feet. The facility shall have no fee parking with a minimum parking for 10 cars. The space shall include a meeting room with a minimum of 150 square feet. The exterior door(s) shall have locks in good working order and keys provided for all field staff. The office space shall be located within 2 miles of the construction project.

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

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

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

C Construction

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

D Measurement

The department will measure the Field Facilities Office Space as each office, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.006	Field Facilities Office Space	EACH

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

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

44. Section Corner Monuments, Item SPV.0060.007

A Description

Coordinate with Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner (Public Land Survey System- PLSS) monument.

B Materials

SEWRPC will provide a pre-cast concrete monument or brass disk to be used to mark the PLSS corner.

Furnish base aggregate dense materials that conform to standard spec 305 and concrete, asphalt, topsoil or other materials depending on the surface surrounding the corner.

C Construction

SEWRPC will perpetuate existing section corner monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process. The engineer will contact SEWRPC at (262) 953-4295 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner monument perpetuation.

Contractor must excavate and completely remove the existing monument. Contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. Contractor is responsible to coordinate the materials and methodology to complete the construction of the surface surrounding the monument. This may include but is not limited to a 2' x 2' "box out" or 24" diameter core hole in concrete, asphalt pavement/paving rings, coring to facilitate poured in place monuments, topsoil, seed and mulching or other materials or methodologies as agreed to by the contractor and SEWPRC.

Contact Information:

Attn: Rob Merry
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607
Phone (262) 547-6721
Cell (262) 953-4295
Fax (262) 547-1103
E-mail: rmerry@sewrpc.org

D Measurement

The department will measure Section Corner Monuments Special by the 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.0060.007	Section Corner Monuments	EACH

Payment is full compensation for all excavating; removal of existing monument, for placing and compacting backfill material; for disposing of surplus materials; for concrete or asphalt material, finishing of roadway or other surfaces, for all coordination with SEWRPC; and for furnishing all labor, tools, and equipment.

SER-621.1 (20170530)

45. Survey Project 2545-09-71, Item SPV.0060.008.

This special provision describes modifying standard specs 105.6 and 650 to define the requirements for construction staking for this contract. Conform to sections 105.6 and 650 and as follows.

The department will not perform any construction staking for this contract. Obtain engineer's approval before performing all survey required to lay out and construct the work under this contract.

Replace standard spec 650.1 with the following:

This section describes the contractor-performed construction staking required under individual contract bid items to establish the horizontal and vertical position for all aspects of construction including:

- subgrade
- base
- curb and gutter
- curb ramps
- storm sewer
- pavement
- pavement markings (temporary and permanent)
- supplemental control
- slope stakes
- utilities
- traffic control items

B Vacant

C Construction

Add the following to standard spec 650.3.1 (5):

Confirm with engineer before using global positioning methods to establish the following:

1. Concrete pavement vertical locations.
3. Curb, gutter, and curb & gutter vertical locations.

Replace standard spec 650.3.1.1(2) with the following:

(6) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes:

- Raw data files
- Digital stakeout reports
- Control check reports
- Supplemental control files (along with method used to establish coordinates and elevation)
- Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Add the following to standard spec 650.3.3.3.6.2 as paragraph four:

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

D Measurement

Replace standard spec 650.4 with the following:

The department will measure Survey Project (Project ID) as each unit of work, acceptably completed.

E Payment

Replace standard spec 650.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.008	Survey Project 2545-09-71	EACH

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract and for adjusting stakes to ensure compatibility with existing field conditions. The department will not make final payment for this item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. Re-staking due to construction disturbance and knock-outs will be performed at no additional cost to the department.

46. Temporary No Parking Signs, Item SPV.0060.010.

A Description

This special provision describes providing, installing, maintaining, and removing Temporary No Parking signs.

B Materials

Furnish materials under this item according to the details as shown on the plans.

Temporary No Parking signs shall be fabricated using 18”x24” 4mm white corrugated (polypropylene twinwall) plastic sign base to print R7-1 regulation; use R7-1D, R7-1L or R7-1R where necessary. Provide a 0.4-inch thick base with a 0.035-inch wall thickness and 0.4-inch cell size. Prepare the sign base as the sheeting manufacturer recommends.

Sign shall be affixed to using 9-gauge galvanized electric fence wire.

C Construction

Install Temporary No Parking Signs according to the plans. Plan changes must be approved by a City of Milwaukee Traffic Engineer.

Any No Parking signage attached to city street trees shall be of a temporary method (nails or spikes are not allowed).

Please contact Mr. Cameron Potter at (414) 286-3276 with questions.

D Measurement

The department will measure Temporary No Parking Signs 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.0060.010	Temporary No Parking Signs	EACH

Payment is full compensation for providing, installing, maintaining, and removing Temporary No Parking signs; and for furnishing all labor, equipment, tools, and incidentals necessary to complete the work.

47. Inlet Cover Type MS 55, Item SPV.0060.101

A Description

Perform work under these items according to the requirements of standard spec 611 and the details as shown on the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Inlet Cover, Type MS 55 by the unit in place, furnished, installed, and 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.0060.101	Inlet Cover Type MS 55	EACH

Payment is full compensation for furnishing and installing the inlet covers and catch basin; and for installing and adjusting each cover.

48. Inlet Cover Type MS 57, Item SPV.0060.102.

A Description

Perform work under these items according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Furnish materials under these items according to the requirements of standard spec 611 and the details as shown on the plans.

C Vacant

D Measurement

The department will measure Inlet Cover, Type MS 57 by the unit in place, furnished, installed, and 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.0060.102	Inlet Cover Type MS 57	EACH

Payment is full compensation for furnishing and installing the inlet covers and catch basin; and for installing and adjusting each cover.

49. Manhole Cover Type MS-58A, Item SPV.0060.103

A Description

Perform work under these items according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Furnish materials under these items according to the requirements of standard spec 611 and the details as shown on the plans.

C (Vacant)

D Measurement

The department will measure Manhole Cover Type MS 58-A by the unit in place, furnished, installed, and 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.0060.103	Manhole Cover Type MS-58A	EACH

Payment is full compensation for removing and salvaging the existing covers, providing new covers, including frames, lids, and for installing and adjusting each cover. Old covers removed remain the City of Milwaukee's property.

50. Internal Sanitary Manhole Seals, Item SPV.0060.104.

A Description

The work under this item consists of furnishing and installing internal manhole chimney seals for each sanitary manhole identified on the plans.

B Material

The contractor shall furnish and install frame-to-chimney seals on all sanitary manholes within the limits of this contract. The seals shall be as specified in the *Standard Specification for Sewer and Water Construction in Wisconsin (Sixth Edition with addendum) Chapter 8.42.0*

C Construction

The inside diameter of the manhole frame and the manhole chimney shall be field measured, and a determination as to whether the inside face of the frame is vertical or tapered shall be made in order to obtain the proper size and shape rubber seal.

Internal rubber chimney seals shall be installed no sooner than 24 hours following chimney back plastering.

The surfaces against which the sleeve is to be compressed shall be circular, clean, reasonably smooth and free of any loose materials and excessive voids. Any flaws in these surfaces shall be repaired with the approved low-shrink mortar or ground smooth. A bead of butyl rubber caulk conforming to ASSHTO M-198 Type B shall be applied to the lower sealing surface of sleeve.

The seal shall be installed according to the manufacturer's instructions. (Refer to the plan data for configuration of chimney seal.)

D Measurement

The item Install Sanitary Manhole Seals, furnished and installed at the locations indicated on the plans, will be measured and paid for as units in place, and accepted according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.104	Internal Sanitary Manhole Seals	EACH

Internal Sanitary Manhole Seals, measured as provided above, will be paid for at the contract unit price each, for the furnishing and installing internal rubber chimney seals and for all labor, tools, equipment and incidentals necessary to complete the work for each sanitary manhole.

51. Storm Inlet Type 45A, Item SPV.0060.112.

A Description

Perform work under these items according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Furnish materials under these items according to the requirements of standard spec 611 and the details as shown on the plans.

C (Vacant)

D Measurement

The department will measure Storm Inlet Type 45A by the unit in place, furnished, installed, and 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.0060.112	Storm Inlet Type 45A	Each

Payment is full compensation for providing materials, including masonry, making sewer connections to new or existing facilities, and other fittings; for excavating, backfilling, disposing of surplus material, and for cleaning out and restoring the work site; except that the department will pay for covers, including frames, grates and lids separately.

52. Install Precast Control Cabinet Base, Item SPV.0060.201.

A Description

This special provision describes the installation of precast control cabinet bases furnished by the City of Milwaukee, for traffic signal control cabinets as shown on the plans.

B Materials

The 36”x21.25”x20” pre-cast concrete foundation for traffic signal cabinets will be furnished by the City of Milwaukee. The contractor shall contact Mr. Rudy Gutierrez, Electrical Services Manager (414) 286-5941 office, (414) 708-5148 mobile; or the Electrical Services Dispatcher at (414) 286-3687 to coordinate pickup of the concrete foundation at the City of Milwaukee Electrical Services headquarters located at 1540 West Canal Street Milwaukee, WI 53233.

C Construction

Install concrete traffic cabinet bases according to the plans. Plan changes must be approved by a City of Milwaukee Electric Services Manager or Traffic Engineer. The primary contacts are Mr. Rudy Gutierrez, Electrical Services Manager (414) 286-5941 office, (414) 708-5148 mobile.

D Measurement

The department will measure Install City Precast Controller 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
SPV.0060.201	Install City Precast Controller Base	EACH

Payment is full compensation for installing city furnished controller base; for excavation, backfilling and disposal of surplus material.

53. ATC Controller and Cabinet Installed, Item SPV.0060.205.

A Description

Furnish and install an ATC Traffic Signal Controller and NEMA TS2 Type 1 Traffic Signal Control Cabinet.

B Materials

Furnish equipment and assemble the cabinet conforming to the latest revision of NEMA Standards Publication TS 2-2003, Traffic Controller Assemblies with NTCIP requirements, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard.

The cabinet shall be designed for TS2 Type 1 operation and shall conform to the design shown in DWG TF5016TWI02.

All equipment, materials, and cabinet features shall be the same type, make, and model on all cabinets delivered under any one order.

Furnish an Econolite Cobalt-C shelf mount controller with the latest ASC/3 software installed.

Furnish any equipment and materials not specifically described but required in order to perform the intended functions in the cabinet.

C Construction

Conform all work to the Wisconsin State Electrical Code (WSEC). Conform all work to standard spec 651, as supplemented or modified in this specification.

C.1 Definitions

Vendor – the firm under contract with the City of Milwaukee for furnishing the fully equipped and operational traffic signal cabinet

Construction contractor – the firm under contract with the City of Milwaukee or another agency to construct a roadway facility. The construction contractor will install the traffic signal cabinet or may designate a subcontractor, such as an electrical subcontractor, to represent them with regards to the signal cabinet installation

Owner – City of Milwaukee

Manufacturer – the firm that builds or produces the traffic signal equipment other than the cabinet. For example, the “controller manufacturer”

C.2 Terminal Facility

Fully wire the terminal facility with 16 load switch sockets: 8 phases of vehicular, 4 phases of pedestrian, and 4 phases of overlap operation; 8 flash transfer relay sockets; 1 flasher socket; and 2 terminal facility Bus Interface Unit (BIU) rack slots. The use of printed circuit boards is not acceptable on the terminal facility, except printed circuit boards are acceptable for the BIU interface with the load bay. Position the 16 load switch sockets in two horizontal rows of 8 sockets each. Support the load switches and flasher by a bracket or shelf extending at least 3 inches from the terminal facility.

Label all terminals, load switches, and flash transfer relay sockets. Label reference designators by silk-screening on the front and rear of the terminal facility to match drawing designations.

Provide rack mounted BIU’s. Provide a dual-row, 64-pin female DIN 41612 Type B connector for each BIU rack position. Provide card guides for both edges of the BIU. Terminal and facilities BIU mounting shall be an integral part of the terminal facility.

Provide a 16-channel, 8-position, TS2 detector rack, with an integrally mounted BIU mounting. Racks shall be addressable. Power a detector rack by the cabinet power supply. Fasten the loop detector rack towards the left side of the lower shelf.

For BIU rack connectors, provide pre-wired address pins or jumper plugs corresponding to the requirements of the NEMA TS2 Standard. The address pins or jumper plugs shall control the BIU mode of operation. BIUs shall be capable of being interchanged with no additional programming.

For the terminal facility, contain all field wires within one or two rows of horizontally-mounted heavy duty terminal blocks. Terminate all field output circuits on an unfused terminal block with a minimum rating of 10 amps. Use mechanical connector lugs rated for copper wire.

Angle the lower section of the terminal block out from the back of the cabinet at approximately a 45-degree angle.

Identify all field input/output (I/O) terminals by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS2 Standard.

All field flash sequence programming at the field terminals shall be able to be accomplished with the use of only a screwdriver.

Wire field terminal blocks to use three positions per vehicle or overlap phase (green, yellow, red).

Wire one RC network in parallel with each flash transfer relay coil.

Permanently label all logic-level, NEMA-controller and MMU input and output terminations on the terminal facility. Identity the function of each terminal position on the cabinet drawings.

Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32-inch screw as minimum.

Functions to be terminated shall be as specified in the listing of Input/Output Terminals in Section 5 of the NEMA TS2 Standard.

Conform all terminal facility and cabinet wiring to the WSEC. The green/walk, yellow, and red/don't walk load switch outputs shall be minimum 16-gauge wire. The MMU (other than AC power), controller I/O, and logic ground shall be minimum 22-gauge wire. All wire colors shall be consistent.

C.3 Vehicle Detection Interface Panel

Provide a 16-position interface panel. Interface panel shall allow for the connection of 16 independent field loops. The panels shall have barrier strip type terminals using 8-32 screws and be rated for 20-inch pounds of torque. Provide a ground bus terminal between each loop pair terminal to provide a termination for the loop lead-in cable ground wire. Secure the interface panels to a mounting plate attached to the left interior side wall of the cabinet. The panel shall also include inputs for up to 4 preempts.

Provide a cable consisting of 20 AWG twisted pair wires to enable connection to and from the interface panel to a detector rack. The twisted pair wires shall be color-coded wires. Provide a cable of sufficient length to allow the detector rack to be placed on either shelf.

Identify all termination points by a unique number silk screened on the panel.

C.4 Conductors and Cabling

All conductors in the cabinet shall be copper 22 AWG or larger. All 14 AWG and smaller wire shall conform to MIL-W-16878/1, Type B, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation without clear nylon jacket and rated to 105 degrees Celsius. All 12 AWG and larger wire shall be UL or NRTL listed THHN/THWN 90 degrees Celsius, 600V, 0.020 inches thick PVC insulation, and clear nylon jacketed.

Provide controller and MMU cables of sufficient length to allow the units to be placed on either cabinet shelf in the operating mode. Connecting cables shall be sleeved in a braided nylon mesh. Exposed tie-wraps and interwoven cables are unacceptable.

Provide the cabinet configuration with up to 6 SDLC RS-485 Port 1 communication cables to allow full capabilities of that cabinet. Each communication cable connector shall be a 15-pin metal shell D subminiature type. The cable shall be a shielded cable suitable for RS-485 communications. Secure all connecting cables and wire runs by mechanical clamps. Stick-on type clamps are not acceptable.

Pre-wire the terminal facility for a Type 16 MMU.

All wiring shall be neat in appearance. Stow excess cable behind the terminal facility or below the shelves in order to allow easy access to the terminal facility and cabinet components. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.

Wire the grounding system in the cabinet into three separate circuits: AC Neutral, Earth Ground, and Logic Ground.

Optoisolate all pedestrian pushbutton inputs from the field to the controller through the BIU and operate at 12 VAC.

Hook or loop all wire, size 16 AWG or smaller, at solder joints around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.

C.5 Cabinet Switches

The above switches shall function as follows:

Off: Signals Dark

Signal: Signals On and operating as follows:

Auto	Hand
Flash: Signals Flash	Signals Flash
Normal: Signals Normal	Signals Advance by use of hand control

Provide manual detector switches. Provide four pedestrian detector switches. The switches shall be spring loaded and automatically return to the center position. Wire the pedestrian switches to the T&F BIU slot 1. The switches shall operate as follows:

Position	Function
Up	Detector Disabled
Center	Detector Enabled
Down	Detector Called

C.6 Bus Bar

Provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

C.7 Circuit Breakers

House in the power panel the following vertically mounted, single pole, 120 volts AC, 60 Hertz circuit breakers, with the ON position being up:

One 30-amp signal breaker. This breaker shall supply power for all cabinet functions not powered through one of the other breakers or fuses listed below. Streetlights will be powered from outside the cabinet in the meter breaker pedestal. This breaker shall feed a signal bus supplied through a solid state bus relay and a radio interference line filter. The bus relay, in all cases, shall be a solid state contactor and shall not be jack mounted. Breakers shall be thermal magnetic type, UL or NRTL listed, with a minimum of 22,000 amp interrupting capacity.

One 15-amp auxiliary breaker. This breaker shall supply power to the fan and heater**.**

One 10-amp breaker. This breaker shall supply power for control equipment: controller, MMU, and cabinet power supply.

One 20-amp circuit breaker for future use.

Power the cabinet light through the GFI fuse, not a circuit breaker.

C.8 Radio Interference Suppressor

Equip each control cabinet with a single radio interference suppressor (RIS) of sufficient ampere rating to handle the load requirements. Install the RIS at the input power point. The RIS shall minimize interference in both the broadcast and the aircraft frequencies and shall provide a maximum attenuation of 50 DB over a frequency range from 200 KHZ to 75 MHZ, when used in connection with normal installations. The RIS shall be hermetically sealed in a substantial metal case filled with a suitable insulating compound. The terminals shall be nickel-plated brass studs of sufficient external length to provide space to connect two #8 AWG wires and shall be so mounted that they cannot be turned in the case. Ungrounded terminals shall be properly insulated from each other and shall maintain a surface leakage distance of not less than 6.35 mm between any exposed current conductor and any other metallic parts. The terminals shall have an insulation factor of 100-200 megaohms dependent upon external conditions. The RIS shall be rated at minimum 50 amperes. Design the RIS for operation on 115 VAC +/- 10%, 60HZ, single-phase circuits, and to meet the standards of UL or a NRTL and Radio Manufacturer's Association.

C.9 Bus Relay

Provide a normally open, 60 amp, solid state relay.

C.10 Surge Protector

Install a plug-in type EDCO SHA-1250, or Atlantic/Pacific approved equal, surge protector across the load terminal of the 10-amp circuit breaker. Install a General Electric Varistor, catalog #V130PA20A, at the load terminals of the circuit breaker from the hot line to the grounded current carrying neutral conductor

C.11 Power receptacles

Mount a 120 VAC 20 amp**,** NEMA 5-20R GFCI convenience outlet at each of these two locations:

On the interior right side wall above the power panel. The outlet shall be fully operational, and fuse protected.

Near the power panel where it will not interfere with power panel maintenance**.** This outlet is to be wired by field installation personnel.

C.12 Suppressors and RC Network

Provide a suppressor for each 120 VAC circuit that serves an inductive device, such as a fan motor or a mechanical relay, to protect the controller's solid state devices from excessive voltage surges. Such suppressors shall be in addition to the surge protector at the input power point. Wire one RC network in parallel with each inductive device.

C.13 Auxiliary Devices

C.13.1 Load Switches

Provide 16 solid state load switches conforming to the requirements of section 6.2 of the NEMA TS2 Standard.

C.13.2 Flashers

Provide one solid state flasher conforming to the requirements of section 6.3 of the NEMA TS2 Standard.

C.13.3 Flash Transfer Relays

Provide 4 flash transfer relays conforming to the requirements of section 6.4 of the NEMA TS2 Standard.

C.13.4 Inductive Loop Detector Units

Provide 8 inductive loop detector units conforming to the requirements of section 6.5 of the NEMA TS2 Standard for 2-channel, rack mount detector units, type C.

C.13.5 Cabinet Power Supply

Provide one cabinet power supply with each cabinet conforming to the requirements of section 5.3.5 of the NEMA TS2 Standard. Provide LED indicators for the 12 VDC, 12 VAC, and 24 VDC outputs. Provide jack plugs on the front panel for access to the +24 VDC for test purposes.

C.14 Bus Interface Units (BIU)

Provide three BIUs conforming to the requirements of section 8 of the NEMA TS2 Standard.

Provide two BIUs with the main panel and one BIU with one of the detector racks.

C.15 Malfunction Management Unit (MMU)

Provide one shelf-mountable, 16 channel, solid-state MMU with Ethernet capability. The MMU shall meet the requirements of Section 4 of the NEMA TS2 Standard. The MMU shall be an Eberle Design Inc. Model MMU2-16LE or preapproved equal.

The MMU shall be capable of the following:

Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don’t Walk) on the same channel.

Determining if the field signal input states detected as active or inactive by the MMU correspond with the data provided by the Controller Unit.

Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.

Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected/permissive left and right turn movements).

Event logging for the following; AC Line log, Prior/Previous Faults log, and Monitor Reset Log. All log entries shall include a date and time stamp.

All monitor functions shall be capable of being programmed through the front panel, without the need for computers or special programs cards.

A built-in Diagnostic Wizard shall be provided that displays detailed diagnostic information regarding the fault being analyzed. This mode shall provide a concise view of the signal states involved in the fault, pinpoint faulty signal inputs, and provide guidance on how the technician should isolate the cause of the malfunction.

The MMU shall have an LCD display that allows for viewing of log files and field indications, as well as the viewing and setting of date and time and configuration parameters.

C.16 Documentation

C.16.1 Cabinet Intersection Wiring Diagrams

For each individual cabinet ordered, within 10 calendar days after receipt of the procurement order, furnish to the City of Milwaukee's electrical lead electrician two sets of 22X34-inch detailed printed cabinet intersection wiring diagrams for information only.

At the time of the cabinet delivery, furnish to the City of Milwaukee's electrical lead electrician two sets of printed 22X34-inch cabinet intersection wiring diagrams and one set of .dgn CAD files per cabinet. Printing the 22X34-inch sheet in smaller sizes is not acceptable. Leave a third drawing in the signal cabinet. After cabinet acceptance is complete, if any cabinet wiring changes were made, revise the cabinet wiring diagrams, leave one drawing in the signal cabinet, and furnish to the City of Milwaukee's electrical lead electrician two sets of as-built printed cabinet wiring diagrams and one set of as-built .dgn CAD files per cabinet. If no changes were made from time of cabinet delivery, notify the City of Milwaukee's lead electrical technician in writing.

C.16.2 Manuals

At the time of the cabinet delivery, furnish to the City of Milwaukee's electrical lead electrician one set of installation, operations, and maintenance manuals per cabinet including each type of equipment in the cabinet. The manuals shall as a minimum include the following information: a) table of contents, b) operating procedure, c) step-by-step maintenance and trouble-shooting information for the entire assembly, d) schematic diagrams, e) pictorial diagrams of parts locations, f) itemized parts lists with parts numbers, g) theory of operation, and h) maintenance checklists.

The itemized parts lists shall include the manufacturer's name and parts number for all components (such as IC, diodes, switches, relays, etc.) used. The list shall include cross-references to parts numbers of other manufacturers who make the same replacement parts.

For each of the traffic signal controller and MMU, in addition to the above manual requirements, furnish one reference manual for the processor and components proposed to perform the controller and MMU functions. Include a complete set of schematics for the controller, MMU, and any auxiliary circuit boards either in the reference manual or in a separate volume. In addition, furnish a written narrative describing the controller and MMU operation and front panel configuration, and a conceptual flow chart illustrating the control logic for comparison with these specifications. The narrative shall include a discussion of any limitation or exceptions to the performance described in these specifications, and a discussion of any control capabilities provided in addition to that required in these specifications.

C.17 Cabinet Delivery

The construction contractor will provide the traffic signal specifications and plans, including the sequence of operation, to the vendor. The vendor shall determine the required cabinet equipment and assembly requirements from the plans and specifications and provide the owner a list of procurement items. The contractor will order the procurement items. The City of Milwaukee will provide the signal timing to the vendor a minimum of two weeks before the scheduled cabinet delivery date.

For cabinets to be installed in the field by the construction contractor, provide the list of procurement items to the City of Milwaukee a minimum of 60 days before the cabinet is scheduled to be installed in the field. The vendor is responsible for coordinating with the project construction contractor to determine the scheduled cabinet installation date. Cabinets shall be completed, delivered, and accepted within 50 calendar days after the initiation of the procurement request. The City of Milwaukee reserves the right to require up to five cabinets per month to be completed, delivered, and accepted.

If the City of Milwaukee makes a modification to any cabinet order before the entire cabinet is completely built in the vendor's shop, the delivery time does not change. If the owner accepts a vendor requested cabinet order or other modification at any time, the delivery time does not change. All cabinet modifications will be made without additional cost to the owner, except if an additional equipment item is added that is under procurement contract, the established price in the procurement contract will be paid the vendor.

Deliver cabinets to City of Milwaukee Electrical Services headquarters located at 1540 West Canal Street Milwaukee, WI 53233. Final wiring/terminations in all cabinets that are to be city owned will be performed by city forces. Coordinate final cabinet wiring with the City of Milwaukee's Traffic Signal Field Operations unit.

Delivery will be received by the owner. Schedule the delivery directly with the construction contractor. The vendor is responsible for arranging the unloading of the cabinet. Notify the electrical shop of the intent to deliver a minimum of two business days ahead of the desired delivery time. The owner will provide the vendor a list of names, phone numbers, and email addresses for contact information.

The vendor is notified that delivery times and schedules may be changed or delayed at any time for any reason. The vendor may be required to store completed cabinets at their facility for extended periods of time.

C.18 Acceptance Testing

Complete on-site traffic signal acceptance testing in the presence of the owner. The acceptance testing will occur after the signal cabinet is fully installed at the project intersection by the construction contractor and before the traffic signal is turned on. The construction contractor and the owner will determine the time for the acceptance testing. In addition to the cabinet as specified in this specification, add-on accessory items, traffic signal interconnect, system communication, and closed loop system operation are included in the acceptance testing.

Provide an IMSA certified Traffic Signal Bench Technician, Level II, or an IMSA certified Traffic Signal Field Technician, Level II, with a minimum of three years' experience in construction and operation of traffic signal cabinets similar to the cabinets specified in this specification. Alternatively, provide a technician or electrician with a minimum of three years' experience in construction and operation of traffic signal cabinets similar to the cabinets specified in this specification. The technician shall be on-site during the entire acceptance testing and shall be capable and equipped to make in-field revisions / repairs to the signal cabinet to conform to this specification.

Upon successful completion of the acceptance testing as determined by the owner, a 30-day conditional acceptance of the signal cabinet will be provided to the vendor. Should the cabinet within the 30-day conditional acceptance period fail to perform in any way as determined by the owner, the vendor shall repair the cabinet to bring it into conformance with this specification and the acceptance testing shall be repeated. Repair times shall conform to the warranty service response times in this specification. The acceptance testing shall be repeated. Upon successful completion of the retesting, a new 30-day conditional acceptance period shall begin. After the signal cabinet runs 30 days without failure, the cabinet will be fully accepted by the owner.

The vendor will be allowed up to two 30-day conditional acceptance periods. If the cabinet fails during the second 30-day period, an entirely new cabinet shall be furnished and made operational in the field by the vendor at no cost to the owner and a new acceptance testing procedure shall begin. Cabinet replacement times shall conform to the warranty service response times in this specification. The original cabinet becomes the property of the vendor.

The owner reserves the right to perform its own tests on the traffic signal cabinet at any time using the owner's control equipment. Should an individual traffic signal cabinet be found to not meet the requirements of these specifications, the vendor shall pick up the traffic signal cabinet from the owner or from the field, perform at their shop repairs / revisions as necessary to bring the traffic signal cabinet into conformance with these specifications, and deliver the repaired / revised traffic signal cabinet back to the designated location, all at no additional cost to the City of Milwaukee.

C.19 Certification

Provide a written certification with the cabinet delivery that the equipment meets the requirements of the plans and specifications and will fully run the sequence of operation and the signal timing, including closed loop system operation if applicable. The certification shall be on the vendor's company letterhead, shall be addressed to both the City of Milwaukee and the construction contractor, and shall be signed by a company officer authorized to legally obligate the company.

C.20 Warranty

The warranty shall start upon delivery of the cabinet and all supplied equipment to the owner designated location. Provide a warranty and guarantee statement which stipulates that the cabinet and all supplied equipment, including add-on accessory items, to be, individually and as a cabinet system, free from defects in materials and workmanship for a period of at least one year from the date of final cabinet acceptance in the field, or in the case of a cabinet that is to be delivered to the owner for use by the owner, from the date of delivery of an accepted cabinet to the owner. All warranty beyond the one year construction bond needs to be from the manufacturer or vendor. Final cabinet acceptance in the field is after a successful 30-day conditional acceptance period is completed. Delivery of a cabinet for testing does not constitute acceptance of the cabinet. Turn over to the City of Milwaukee warranties and

guarantees that are offered by the manufacturer as a customary trade practice. Name the City of Milwaukee as the obligee on all manufacturers' warranties and guarantees. Shipping costs, both to the factory or an Authorized Repair Depot, and return, shall be paid by the vendor.

The warranty shall provide for full repair or replacement, as determined by the owner, of the failed item or cabinet system, including removal and making the item or system fully operational in the cabinet, at no cost to the owner. Vendor warranty service response times after notification by the owner:

- 4 hours to have qualified service personnel on site at the intersection.
- 12 hours to have the signal safely operational, including all phases and enough detection to run the intersection phasing (minimum 8 detectors).
- 48 hours on business days to restore the signal to full original operations.

If a malfunction in the controller unit, MMU, module, or any auxiliary equipment occurs during the warranty period, the vendor shall, within 24 hours after notification (excluding Saturday and Sunday), furnish and make fully operational in the cabinet, an identical, programmed, controller unit, MMU, module, or auxiliary equipment, for use while the warranted unit is being repaired or replaced. The isolation of any malfunction during the warranty period shall be the responsibility of the vendor.

The City of Milwaukee reserves the right to make repairs to malfunctioning cabinets and equipment that are under warranty, up to and including complete replacement of the cabinet, when in the owner's determination the safety of the traveling public is best served. Such repair work will not in any way void or limit the vendor's warranty and guarantee specified above. The owner will notify the vendor in writing of the repair.

The vendor shall within five business days after notification replace, at the electrical shop, all cabinets, equipment, and supplies used by the owner in making repairs, with new parts meeting the requirements of this specification.

If any cabinet has three or more equipment or cabinet system failures, resulting from poor workmanship, within the first six months of operation after owner acceptance, an entirely new cabinet exactly matching the existing cabinet shall be furnished and made fully operational by the vendor at no additional cost to the owner. Any traffic control, including but not limited to signing, channelizing devices, temporary signals, police control, and flaggers, that becomes necessary as determined by the owner in order to safely replace the cabinet is the full responsibility of the vendor. The original cabinet becomes the property of the vendor.

Provide, at no additional cost, firmware/software maintenance, problem resolution phone technical support, problem resolution technical support in the supplier's facility, firmware/software patches, and firmware/software upgrades for a minimum of three years. The lead for technical support and primary owner contact for support shall be a qualified person employed by the vendor's local office who is personally familiar with the owner's software and signal operations. Help desks and manufacturer's representatives may be utilized by the lead technical support person as resources but are not acceptable for lead technical support.

Maintain an inventory of the firmware/software version on each controller provided. Notify the City of Milwaukee's electrical shop supervisor or lead electrician in writing when a firmware/software patch or upgrade is available. The owner will direct the vendor when to load the patch or upgrade for each controller. Load the patch or upgrade and provide a usable copy of the patch or upgrade to the owner. Alternatively, when requested by the owner, provide the patch or upgrade to the owner for installation by the owner.

D Measurement

The department will measure ATC Controller and Cabinet Installed (Location) as each unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.205	ATC Controller and Cabinet Installed	EACH

Payment is full compensation for furnishing and installing the traffic signal controller and control cabinet; for furnishing and installing all other items necessary (such as, wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

54. Fiber Optic Patch Panel, Item SPV.0060.212.

A Description

Furnish and install a fiber optic patch panel according to the following standards.

B Materials

Furnish a Fiber Optic Patch Panel with cable lengths as specified in the plans. The patch panel shall have 6 steps, 12 count single-mode OS2 fiber, ST connectors, and a pigtail end. The cable shall be for indoor or outdoor use and shall be riser cable. The body of the patch panel shall be black in color. No pull kit should be pre-installed.

C Construction

Have a certified fiber optic technician perform work for fiber optic terminations, splicing and testing. Have a certified fiber optic technician supervise all fiber optic cable installation. Test the panel and demonstrate that all equipment is operational to the inspector. Ensure termination does not exceed attenuation limits specified in standard spec 678.3.4.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.212	Fiber Optic Patch Panel	EACH

Payment is full compensation for furnishing and installing fiber optic patch panel and for testing the equipment.

55. Ethernet Switch, Item SPV.0060.213.

A Description

Furnish and install an Ethernet switch according to the following standards.

B Materials

Furnish an Ethernet Switch with a compatible power supply.

Environmental: This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS2 specifications.

Mounting: This equipment must be DIN Rail mountable.

Interfaces: This equipment must support a minimum of 12 Ethernet interfaces, with a minimum of three being shared or dedicated SFP interfaces for pluggable optical connections and support for PoE+ on four or more interfaces.

Management: This equipment must be a managed switch with the ability to support 802.1Q VLAN Tagging, 802.1D Spanning Tree Protocol, and 802.1p Quality of Service. Multicast, broadcast, and flooding storm control should be features.

LEDs: This equipment must have a power input status LED, a ring status LED, and LEDs showing the port link and speed status per port.

Memory: This equipment must have a minimum of 128MB of DRAM, and a minimum of16MB of flash memory.

C Construction

Install Ethernet switch into field cabinet. Connect switch to the devices as directed by the engineer. Contact Scott Reinbacher at (414) 286-3232 for more information.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.213	Ethernet Switch	EACH

Payment is full compensation for furnishing and installing Ethernet switch and making necessary connections.

56. Electrical Service Pedestal, Item SPV.0060.215.

A Description

Install meter breaker pedestal.

B Materials

Furnish 120/240V meter breaker pedestal conforming to state standard spec 656.2.3, except do not supply service.

C Construction

Install service pedestal at location shown in plans. Install grounding electrodes as required by local utility and install appropriate grounding conductors.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.215	Electrical Service Pedestal	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

57. EVP 1 Channel 1 Direction Infrared Detector, Item SPV.0060.218.

A Description

Furnish and install an Emergency Vehicle Preemption (EVP) 1 Channel 1 Direction Infrared Detector.

B Materials

Furnish a 1 Channel 1 Direction Infrared Detector.

C Construction

Install detector as shown in the plans and according to manufacturer’s recommendations.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.218	EVP 1 Channel 1 Direction Infrared Detector	EACH

Payment is full compensation for furnishing and installing the EVP detector.

58. EVP Phase Selector Card 4 Channel, Item SPV.0060.221.

A Description

Furnish and install an Emergency Vehicle Preemption (EVP) Phase Selector Card 4 Channel.

B Materials

Furnish a 4 channel phase selector card. The selector card shall be capable of functioning with a GPS radio unit as well as infrared system detectors simultaneously.

C Construction

Install phase selector card into the appropriate slot in the controller cabinet and make all necessary wiring connections to EVP detectors.

D Measurement

The department will measure this item by the each unit of measure.

E Basis of Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.221	EVP Phase Selector Card 4 Channel	EACH

Payment is full compensation for furnishing and installing the phase selector card; making necessary connections.

59. EVP Confirmation Light, Item SPV.0060.223.

A Description

Furnish and install an Emergency Vehicle Preemption (EVP) Confirmation Light Assembly.

B Materials

Furnish a typical confirmation light assembly and LED flood light.

C Construction

Install confirmation lights as described in the plans.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.223	EVP Confirmation Light	EACH

Payment is full compensation for furnishing and installing the EVP confirmation light assembly.

60. Vehicular Video Detection System-2 Cameras, Item SPV.0060.225.

A Description

This specification 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 as shown in the plans, including but not limited to cameras, processors, video monitor, mounting hardware, and power cable.

B Materials

This specification sets forth the requirements for a system that detects vehicles on a roadway and provides detection outputs to a traffic signal controller. The materials shall also include all brackets, risers, mounting hardware, cable, terminations, interface panels, and all other incidentals for the installation of the equipment. This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS2 specifications.

The video detection system shall include two video detectors with a high-definition camera of at least 720p resolution with a 10x optical zoom with real time iris and shutter speed control by the integrated processor. The faceplate shall be glass with a hydrophilic coating on the exterior and with an indium tin oxide heater applied to the inner surface.

All communications to the video sensor shall be broadband-over-power via three conductor cable. No coaxial cable shall be used.

The video detection system shall include an interface panel that manages communication between sensors, remote access to the sensors, and the cabinet itself. The interface panel shall provide connection points for four video sensors. Each sensor connection shall have a power switch and a resettable fuse. All communications to the detection system shall be to a single IP address.

All incidental mountings required for pole or mast arm mounted units to install the detector are included in this item.

C Construction

The video detection system shall be installed by supplier factory-certified installers and as recommended by the supplier and documented in installation materials provided by the supplier.

In the event, at installation or turn on date, a noticeable obstruction is present in line with the detection zone(s), the contractor shall be obligated to advise the engineer before setting the zone.

All cables associated with the video detection system shall be routed to the controller. Each lead shall be appropriately marked as to which street or avenue it is associated. Provide 6 feet of cable slack.

The video detection system, as shown in the traffic signal plans, shall be complete, in place, tested, and in full operation.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.225	Vehicular Video Detection System-2 Cameras	EACH

Payment is full compensation for furnishing and installing video detection system; making necessary connections; and testing video detection.

61. Electrical Riser, Item SPV.0060.228.

A Description

Fabricate and install an electrical riser.

B Materials

Furnish C-condulets, reducer bushings, banding, 1” aluminum conduit, ½” aluminum conduit, 1” terminal adaptor, weather head, and sealant as shown in electrical riser detail.

C Construction

Install materials as shown in electrical riser detail.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.228	Electrical Riser	EACH

Payment is full compensation for fabricating and installing an electrical riser.

62. Pedestrian Countdown Signal Face 12-Inch, Item SPV.0060.267.

A Description

Furnish and install Pedestrian Countdown Signal Face 12-Inch according to the following standards.

B Materials

Furnish a 12-Inch Light Emitting Diode (LED) Pedestrian Countdown Module that meets ITE PTCSI-STD Part 2 from March 2004 or current Institute of Transportation Engineer (ITE) standards. The countdown digits shall be displayed with an LED color/type of Portland Orange. The unit shall be able to operate when exposed to temperatures between -40 to 165 degrees Fahrenheit. The operating voltage shall be between 80 to 135VAC, and the wattage drawn shall be 7W.

C Construction

Install Pedestrian Countdown Signal Face 12-Inch as shown in the plans. Install following standard spec 658.3.

D Measurement

The department will measure this item by the each (EACH) unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.267	Pedestrian Countdown Signal Face 12-Inch	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

63. Voice Instruction Audible Push Button, Item SPV.0060.268.

A Description

Furnish and install a Voice Instruction Audible Pushbutton

B Materials

The Voice Instruction Audible Pushbutton shall be a 2-wire pushbutton that meets ADA requirements. The pushbutton shall be capable of providing audio cues with sound emanating from both the front and back of the unit. Sound shall be synchronized between units and automatically adjust to ambient sound levels. Changing settings and firmware updates shall be done wirelessly over Bluetooth. The switch operating life shall be greater than 20 million operations. The pushbutton station shall have an MUTCD compliant sign on its faceplate.

C Construction

Install a Voice Instruction Audible Pushbutton as shown on plans. Follow requirements outlined in MUTCD Section 4E.9 through 4E.12. Pushbutton plates shall provide direction of travel with single or double arrow as required and shall be properly focused upon installation.

D Measurement

The department will measure Voice Instruction Audible Push Button 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.0060.268	Voice Instruction Audible Push Button	EACH

Payment is full compensation for furnishing and installing voice instruction audible pushbutton, focusing arrows.

64. Voice Instruction Audible Control Unit, Item SPV.0060.269.

A Description

Furnish and install a Voice Instruction Audible Control Unit.

B Materials

The Voice Instruction Audible Control Unit shall be a rack mount card able to be used in a 300 series cabinet. An interconnect panel shall provide enough connection for 16 or more pushbuttons. The panel shall have a separate power supply connection. No polarity requirement shall be needed for the pushbuttons. The control unit shall have LCD display showing status information. Setup shall be performable via Ethernet or Wi-Fi using a PC or by using an app. Any connection option should allow access to setup and configuration of the control unit and any attached voice instruction audible pushbutton.

C Construction

Install a Voice Instruction Audible Control Unit into the controller cabinet's detector rack. Mount the panel to the side of the cabinet in the side panel access. Terminate all pushbutton connections to the panel. Complete setup of the system and demonstrate the pushbuttons are correctly wired and configured.

D Measurement

The department will measure Voice Instruction Audible Control Unit 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.0060.269	VOICE Instruction Audible Control Unit	EACH

Payment is full compensation for furnishing and installing voice instruction audible control unit; making necessary connections; and configuring the system.

65. Remove Traffic Signal Face, Item SPV.0060.278.

A Description

Remove traffic signal face according to current City of Milwaukee standards.

B (Vacant)

C Construction

Remove signal equipment according to current City of Milwaukee Standards.

D Measurement

The department will measure this item by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.278	Remove traffic Signal Face	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

66. Round Aluminum Sign Post System in Soft Surface 10-Foot, Item SPV.0060.281.

A Description

Work under this item consists of furnishing and installing sign post, post anchor and sign mounting hardware at the locations shown on the plans. All sign posts shall be round tubular aluminum and installed as shown in the plans.

B Materials

Furnish a round aluminum 2” Schedule 40 6061-T6 Extruded Aluminum post with a length of 10 feet, a V-loc Soft-Soil 30” with cleanout bar post anchor for 2 3/8” round post (TAPCO SKU 034-00085, Traffic Safety Supply Company SKU DP00239, Custom Products Corporation Item RPORZVRB23VR2B or approved equal), 5/16” x 1 ¼” Stainless Steel Fender Washers and one- or two-sided sign mounting Z-brackets that fit 2 3/8 inch post or approved equal, as shown in plans.

C Construction

Install Round Aluminum Sign Post System in Soft Surface as shown in plans.

D Measurement

The department will measure the Round Aluminum Sign Post System in Soft Surface by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.281	Round Aluminum Sign Post System in Soft Surface 10-Foot	EACH

Payment is full compensation for furnishing and placing the Round Aluminum Sign Post System in Soft Surface 10-Foot.

67. Round Aluminum Sign Post System in Concrete Surface 7-Foot, Item SPV.0060.284.

A Description

Work under this item consists of furnishing and installing sign post, post anchor, anchoring cement and sign mounting hardware at the locations shown on the plans. All sign posts shall be round tubular aluminum and installed as shown in the plans:

B Materials

Furnish a round aluminum 2-inch Schedule 40 6061-T6 Extruded Aluminum post with a length of 7 feet, a V-loc Concrete 8-inch post anchor for 2 3/8-inch round post (TAPCO SKU 037-00012B, Traffic Safety Supply Company SKU DP00241, Custom Products Corporation Item RPORZVR12382OR or approved equal), 5/16-inch x 1 ¼-inch Stainless Steel Fender Washers, one- or two-sided sign mounting Z-brackets that fit 2 3/8-inch post and pourable hydraulic cement for setting of concrete post anchor, as shown in plans.

C Construction

Install Round Aluminum Sign Post System in Concrete Surface as shown in plans.

D Measurement

The department will measure the Round Aluminum Sign Post System in Concrete Surface by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.284	Round Aluminum Sign Post System in Concrete Surface 7-Foot	EACH

Payment is full compensation for furnishing and placing the Round Aluminum Sign Post System in Concrete Surface 7-Foot.

68. Round Aluminum Sign Post System in Concrete Surface 10-Foot, Item SPV.0060.285.

A Description

Work under this item consists of furnishing and installing sign post, post anchor, anchoring cement and sign mounting hardware at the locations shown on the plans. All sign posts shall be round tubular aluminum and installed as shown in the plans:

B Materials

Furnish a round aluminum 2-inch Schedule 40 6061-T6 Extruded Aluminum post with a length of 10 feet, a V-loc Concrete 8-inch post anchor for 2 3/8-inch round post (TAPCO SKU 037-00012B, Traffic Safety Supply Company SKU DP00241, Custom Products Corporation Item RPORZVR12382OR or approved equal), 5/16-inch x 1 ¼-inch Stainless Steel Fender Washers, one- or two-sided sign mounting Z-brackets that fit 2 3/8-inch post and pourable hydraulic cement for setting of concrete post anchor, as shown in plans.

C Construction

Install Round Aluminum Sign Post System in Concrete Surface as shown in plans.

D Measurement

The department will measure the Round Aluminum Sign Post System in Concrete Surface by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.285	Round Aluminum Sign Post System in Concrete Surface 10-Foot	EACH

Payment is full compensation for furnishing and placing the Round Aluminum Sign Post System in Concrete Surface 10-Foot.

69. Sign Mounting Hardware on Existing Pole (Concrete, Aluminum, or Steel), Item SPV.0060.288.

A Description

Work under this item consists of furnishing and installing Mounting Hardware on Existing Pole (concrete, aluminum or steel pole) with current City of Milwaukee practices.

B Materials

201 Stainless Steel Banding ¾” x 0.20., Stainless Steel Flared Leg Sign Mount Bracket for ¾” banding, 201 Stainless Steel Wing Seal (buckle) for ¾” banding, 5/16” x 1-¼” Stainless Steel Fender Washers, 5/16”-18 x 3/4” Stainless Steel Hex Head Bolt.

C Construction

Install and orient Mounting Hardware on Existing Pole (Concrete, aluminum or steel) as shown on the plans.

D Measurement

The department will measure the Installing Mounting Hardware on Existing Pole (Concrete, aluminum or steel) by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.288	Sign Mounting Hardware on Existing Pole (Concrete, aluminum or steel)	EACH

Payment is full compensation for furnishing labor, equipment, coordination, and all materials and incidentals necessary to complete the work.

70. Street Name Sign Mounting Hardware on Existing Pole, Item SPV.0060.290.

A Description

Work under this item consists of furnishing and installing Street Name Mounting Hardware on Existing Pole (concrete, aluminum, steel or wood pole) with current City of Milwaukee practices.

B Materials

Street Name Sign Wing L-Bracket, 201 Stainless Steel Banding ¾" x 0.20., 201 Stainless Steel Wing Seal (buckle) for ¾" banding.

C Construction

Install and orient Mounting Hardware on Existing Pole (Concrete, aluminum, steel or wood) as shown on the plans.

D Measurement

The department will measure the Installing Street Name Sign Mounting Hardware on Existing Pole by the each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.290	Street Name Sign Mounting Hardware on Existing Pole	EACH

Payment is full compensation for furnishing labor, equipment, coordination, and all materials and incidentals necessary to complete the work.

71. Pull Boxes 13-Inch x 24-Inch x 24-Inch, Item SPV.0060.302.

A Description

This special provision describes furnishing and installing pull boxes at the locations shown on the plans according to standard spec 653.

B Materials

Furnish gray in color fiberglass/polymer concrete pull box of rectangular composite enclosure with Tier 15 Rating (15,000 lb. Design Load) & (22,500 lb. Test Load), and nominal 13" wide x 24" long and 24" total depth, flared wall style #CHB132424 as by Highline Products or #B12132424A as by Hubbell Power Systems or approved equal. Cover shall be Tier 15 Rating (15,000 lb. Design Load) & (22,500 lb. Test Load), bolted cover with logo "Street Lighting" #CHC1324HL1 as by Highline Products or #C12132402A41 as by Hubbell Power Systems or approved equal. The pull box shall be listed and labeled by (UL) or other Nationally Recognized Testing Laboratory.

Furnish self-curing caulking to provide a permanent bond and made of flexible rubber that is not affected by sunlight, water, oils, mild acids, and alkali. Use mildew-resistant and non-flammable, gray caulk.\

C Construction

Conform to standard spec. 611 and City of Milwaukee standards. The pull box shall be installed on top of 12-inches of No.2 Coarse Aggregate fill and set flush with finished grade and backfilled around.

Voids between conduit and pull box shall not exceed ½ inch. Caulk the interior and exterior of pull box. Cure caulking according to manufacturer's specifications before backfilling.

Secure pull box with stainless steel pentahead bolts and washers to lock the cover.

D Measurement

The department will measure Pull Boxes 13-Inch x 24-Inch x 24-Inch as each individual pull box, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.302	Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH

Payment for the Pull Boxes bid items is full compensation for providing and installing all materials including pull boxes, covers, bolts, washers, caulking; for excavating, bedding, backfilling, and restoration of ground to original condition including sand, aggregate, concrete, or other required materials; and for disposing of surplus materials.

72. Pull Boxes 17-Inch x 30-Inch x 24-Inch; Item SPV.0060.303.

A Description

This special provision describes furnishing and installing Fiberglass/Polymer Concrete Pull Box at the locations shown on the plans according to standard spec 653.

B Materials

Furnish fiberglass/polymer concrete pull box of rectangular composite enclosure with Tier 15 Rating (15,000 lb. Design Load) & (22,500 lb. Test Load), and nominal 17” wide x 30” long and 24” total depth, flared wall style #CHB173024 as by Highline Products or #B12173024A as by Hubbell Power Systems or approved equal. Cover shall be Tier 15 Rating (15,000 lb. Design Load) & (22,500 lb. Test Load), bolted cover with logo “ Street Lighting” #CHC1730HL1 as by Highline Products or #C12173002A41 as by Hubbell Power Systems, or approved equal. The pull box shall be listed and labeled by (UL) or other Nationally Recognized Testing Laboratory.

C Construction

Conform to standard spec. 673.3 and City of Milwaukee standards. The pull box shall be installed on 12-inches of crushed stone, set flush with grade and backfilled.

D Measurement

The department will measure Fiberglass/Polymer Concrete Pull Box 17-Inch x 30-Inch x 24-Inch as each individual pull box, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.303	Pull Boxes 17-Inch x 30-Inch x 24-Inch	EACH

Payment is full compensation for furnishing and installing all materials, including pull box, end bells, crushed aggregate, excavation, backfilling, and for disposing of surplus material.

73. Remove Poles, Item SPV.0060.310

A Description

This special provision describes removing an existing concrete, wood, steel, and aluminum pole and delivering them to the City of Milwaukee Street Lighting yard. All work shall be according to standard spec 651.

B Materials

Existing poles, including luminaire(s), bracket arm(s), clamp(s), conduit, cabling, and any other equipment mounted to the poles.

C Construction

Disconnect all cables and wiring that is mounted on or in the poles and carefully removes the bracket arm(s), clamp(s), luminaire(s), and poles.

Contractor is responsible to protect and deliver the removed aluminum street lighting equipment (poles, arms, mounting brackets, LED luminaires) to 1540 West Canal Street, Milwaukee, Wisconsin. The contractor should make arrangements for the delivery of this material between the hours of 7:30 AM and 2:30 PM and call 24 hours in advance (telephone #414-286-5944). No delivery will be accepted after 2:30 PM.

Dispose of High Pressure Sodium (HPS) luminaires and all other material appropriately away from the project area.

D Measurement

The department will measure Remove Poles as each individual aluminum pole returned, including attached hardware, or stub removed, salvaged and stored, or disposed non-aluminum including attached hardware, and for delivery to the City of Milwaukee according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.310	Remove Poles	EACH

Payment is full compensation for disconnecting any necessary wiring, removing the poles and equipment mounted on the poles; storing the poles and any equipment attached to them and delivering them to the City of Milwaukee, or disposing of poles; and for all labor, tools, equipment, transportation, excavating, backfilling, disposing of surplus materials, and incidentals necessary to complete the work.

The department will pay separately for the detachment and disposal of High Pressure Sodium (HPS) units.

74. Pole Type A-31, SPV.0060.313.

A Description

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following:

B Materials

1. GENERAL: The concrete poles to be furnished are shown on the print of drawing that form a part of this specification and are attached hereto. The dimensions given are not intended to be exact or precision measurements. Slight variations in dimensions and design that are immaterial to strength and appearance will be permitted, but all such variations shall be approved by the Street Lighting Division.

Manufacturer	Catalog Number
StressCrete	E-370-BPD-G-S35-AG
Traditional Concrete or approved equal	City of Milwaukee A-31, drawing E-54-56

2. DESCRIPTION: The pole shall be concrete, one-piece with dimensions, taper and cross section as shown in the drawings. The butt section shall be square in shape or as indicated in the drawings. The pole shall be manufactured as a prestressed and reinforced centrifugally spun pole as set forth in A.S.T.M. C1089-88 unless otherwise directed.

3. MATERIALS:

   3.1 Concrete Aggregates: Concrete aggregates shall meet all the requirements of A.S.T.M. C33. All aggregate employed in the manufacture of the concrete poles shall be white crystalline stone. The texture and color of the aggregates shall be approved by Street Lighting Division.

   The aggregates shall be of adequate strength in resisting crushing stresses and impervious to moisture; of such character as not to deteriorate or change as a result of continued exposure for years to the weather; and of such character that it crushes into masses approximately cubical in form, not in flakes. Aggregates shall all pass a 3/8-inch sieve, with a minimum size passing a #100 sieve.

3.2 Cement: The cement shall be fresh and free from lumps and shall conform to specifications of the American Society of Testing Materials, serial designation C-150, Type I or Type III.

3.3 Water: The water employed shall be free from acids, alkalis, oil, or organic matter.

3.4 Materials Proportion: The materials combined to produce the concrete shall be proportioned by weight.

3.5 Steel: The surface of all steel shall be free from dirt, oil, or grease. The steel used as either reinforcing or prestressing shall be adequately sized to meet the strength requirements of the finished poles, as herein specified. Longitudinal reinforcement, prestressing and spiral wrap shall comply with the latest version of the applicable ASTM standards. All prestressed wire shall be stressed to not less than 60% or more than 70% of its tensile strength.

3.6 Test of Materials: Any and all of the above materials shall be subject to test at any time before use, as may be directed, and samples for this purpose shall be furnished by the contractor upon request.

3.7 POLE STRENGTH: All poles furnished shall withstand a 90 mph wind load plus 3S gust factor and a 400 lbs working load.

3.7.1 The pole design shall allow for a maximum load of not less than twice the working load.

3.7.2 The elastic limit at which any pole will actually fail to withstand any additional stress without permanent injury shall not be less than 2-1/2 times the working load.

4. LOADING AND STABILITY: All the square poles furnished under this specification shall support two bracket mounted 36 inch, 40 pound arms each with an one hundred pound fixture of an EPA of 5. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS handbook.

   The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

   The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table

5. CABLE RACEWAY: Each concrete pole shall have a hollow raceway at least 1 1/2 inches in diameter and continuous in a straight line, without appreciable offset, throughout its entire length.

   5.1 The raceway shall be free from sharp projections or edges that might injure the insulated wire or cable sheath.

   5.2 Dimensions and locations for lateral opening in the raceway are shown on the drawings.

   5.3 All poles shall be furnished with hand hole. The hand hole shall be located on the face 90 degrees from the lateral opening in the butt of pole and shall have the minimum dimensions of 3-1/2" x 10-1/2". The cover shall be heat-treated cast aluminum, or other material as approved by the city, fastened to non-ferrous insert in the pole. The cover shall be secured to the pole using 1/4"-20 NC by 3/4" long 18-8 stainless button head Torx T27H tamper proof screws.

   5.4 Two lateral openings into the raceway, of dimensions and locations as shown on the drawings, shall be provided in the butt of the pole.

6. CONCRETE:

   6.1 Strength: The concrete strength shall meet the following requirements when tested according to A.S.T.M. C39.

   a. Release of Prestressing Steel: Concrete cylinders made according to A.S.T.M. C31 shall attain a minimum strength of 3,500 p.s.i. at the time that prestressing is released.

   b. Twenty-Eight Days: Concrete cylinders made according to A.S.T.M. C31 shall attain a minimum strength of 8,000 p.s.i. at twenty-eight days.

   6.2 Admixture: All poles shall be manufactured with quality HSF (high silica fume) cement to reduce porosity in the concrete and increase compressive strength.

   6.3 The city may sample and test the concrete at any time. Concrete samples made according to A.S.T.M. C31 shall be furnished by the contractor upon request of the city.

6.4 Process and Surface Finish: The finished concrete used in the manufacture of poles shall be a very dense product, free from undesirable air pockets or voids.

a. The concrete shall be compacted by the centrifugal process so that the surface is dense, with the coarse and fine aggregate evenly distributed. If requested to do so by the Purchasing Division - DOA, a sample shall be produced that is representative of the pole cross-section and at least three inches in length. The sample shall be submitted to the city for approval with respect to color, texture and finish. The concrete mix from which the sample was made shall be noted and submitted with the sample. A representative sample of all aggregates used also shall be submitted.

b. The mixture of aggregates shall be essentially uniform over the entire exterior surface of concrete poles furnished.

c. Size of the duct shall be controlled so that the prestressed and/or reinforcing rods are not embedded in "slurry" (i.e., water-cement-sand mix that collects in the pole core during the spinning process).

d. Following the casting operation, the pole shall be cured with low-pressure steam for as long as needed to reach the necessary strength to allow handling and release of prestressing wires. Poles shall remain in storage for as long as needed for the concrete to reach the required compressive strength. Poles shall meet the design strength before shipment is allowed.

e. To assure that poles are not prematurely exposed to freeze-thaw action and deicer, adequate curing of the concrete for development of sufficient strength to resist scaling and for reduction of water content of the concrete shall be the responsibility of the manufacturer.

f. The finished surface must be polished so that the color and surface smoothness are uniform over the entire surface. The face surface shall be sealed with a siloxane penetrating sealer and a high molecular weight acrylic copolymer or other sealing compounds that will yield equivalent degree of protection from water, salt, and/or other chemical infiltration and does not discolor or fade.

g. The entire lot of concrete poles to be furnished under this specification shall be uniformly consistent in color and finish.

h. Treatment with diluted acid to obtain the desired finish is not permitted.

i. The finished surface of all poles shall be free from visible pits, fins, grooves, patches, or other surface markings not specifically enumerated herein.

j. The top of the pole shall be flat and perpendicular to the longitudinal axis of the pole so that the pole cap will have a positive seat.

k. Chloride accelerators shall not be used in the manufacturing process.

7. REINFORCEMENT: The reinforcing cage, spiral reinforcement and prestressing steel shall be placed in position and maintained in place during the centrifugal manufacturing process. The longitudinal reinforcement, prestressing and spiral reinforcement shall continue throughout the entire length of the pole.

7.1 COVER: All steel shall be covered at all points by at least 1/2 inch of concrete, except where it may be necessary in the process of manufacture to have the rods and/or wire extend beyond the ends of the poles. In such case, the rods and/or wires shall be cut off afterward, even with the face of the molded product, unless otherwise noted on the drawings included herein.

Where the above minimum coverage cannot be maintained next to cable entrance, wire outlet, etc., the reinforcing shall be protected with a suitable sleeve.

Drawings of the reinforcing cage, spiral reinforcement and prestress steel that the manufacturer proposes to use in the manufacture of concrete poles, showing the size, shape and arrangement of reinforcing prestressing spiral reinforcement, ties, method of holding cage in place, etc. SHALL BE SUBMITTED TO Street Lighting Dept.

8. WATERPROOFING: The top and bottom of the poles shall be properly coated with bitumastic waterproofing material.

8.1 Waterproofing material shall be of such quality and consistency that it will not crack or chip when subjected to extremely cold weather, and that it will not flow when subjected to extremely hot weather.

9. ACCESSORIES:

   9.1 Pole cap: Each pole, when the design calls for a pole cap, shall have a removable aluminum pole cap, firmly and securely fastened in proper position by the contractor.

   9.2 Miscellaneous: All pipes, bolts, nut wire, washers, pole caps, casting, fittings, and appurtenances of any sort are to be furnished by the contractor and made of approved rust-proof metal of such design, composition, and dimensions as may be approved by the city before the contractor begins manufacture.

10. MARKING: Every pole shall bear an impressed marking, or other type of marking acceptable to the city, of the type of pole, contractor's insignia, and casting date (month and year). Type of pole and contractor's insignia shall have letters at least 1 inch tall. The casting date shall have digits not less than ½ inch tall. All markings shall be located in line with the cable entrance in the butt of the pole and shall be placed 15 inches to 20 inches above the ground line.

11. COLOR PIGMENTS: Poles with a colored finish shall be furnished where specified. The coloring is to be done by mixing a pigment into the concrete before casting. The color of the pole shall be uniform throughout the body of the pole, shall not fade and shall be maintenance free. The type of coloring pigment shall be indicated with the bid and a sample which represents the finished colored pole shall be furnished for approval of the Street Lighting Dept. at 841 N. Broadway, Room 920, Milwaukee WI 53202.

12. INSPECTION:

   12.1 General inspection for acceptance of the concrete poles shall be made upon delivery at job-site in Milwaukee. Decision as to the compliance with the specification and the quality of the poles shall be made by the city.

   12.2 Tests and inspections for compliance of any of the specified characteristics of the poles also may be made upon the finished product after delivery, at any time before installation.

13. REJECTION:

   13.1 Poles failing to meet the requirements of this specification will be rejected by the city, and the contractor shall immediately remove the same, and furnish at their own expense, poles in conformity with this specification. The contractor shall pay all freight charges for all material furnished under this contract and all unloading and handling charges for any material that may be rejected by the city, including freight charges for return or disposal of such rejected material.

   13.2 The cost of testing poles that are subsequently rejected for non-compliance with the specification shall be charged to the contractor.

14. PEA GRAVEL

   The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter. The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs.	not over 10% by weight

   (Flat and elongated particles are those having a length more than five times the average thickness)

   Grading requirements of the pea gravel are as follows:

Passing 3/8 inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%
Passing No.8 sieve	0% to 5%

   Each unit will require approximately 0.25 cubic yard of pea gravel.

C Construction

The direct bury pole is to be set as illustrated in the plans. The excavated holes are to be 14 or 16 inches in diameter and to a depth of 6 feet 6 inches depending on manufacturers' pole butt length. The holes can be bored, hydrovaced, or hand dug but all shall be cylindrical. If any part of the hole is within 3 feet of a buried utility, the holes must be hand dug or hydrovaced. No other method of setting poles is acceptable. The poles should be parallel and perpendicular to the horizon once set.

In some cases, the poles are to be installed in areas of concrete walk. Prior to concrete removal, the concrete should be saw cut to allow adequate room for pole and cable installation. Saw cutting for removal should be square or rectangular in shape. The contractor shall be responsible for disposing all debris from excavation and removed from site.

There is to be a minimum 6-inch bed of tamped pea gravel for the pole to set on. Then pea gravel is to be backfill around the pole and be tamped every 12 inches and filled to within 3 inches of finished grade.

In areas where concrete walk was removed, felt paper is to be installed around the base of pole and 3 inches of concrete installed. Concrete shall be the standard 5 bag mix, and the finished surface should match adjacent grades.

Grass areas that were disturbed during construction shall be filled with 3 inches of topsoil and sod to match the adjacent finished grade. Addresses are to be stenciled to the pole as shown on the plan.

Pole is to be wired as shown on the plans. A riser cables in pole shall be 50 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the hand hole. The ground wires shall be spliced inside the hand hole and grounded to the housing of each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

D Measurement

The department will measure Pole Type A-31 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.0060.313.	Pole Type A-31	EACH

Payment is full compensation for the pole, riser cable or cables, pea gravel, and all connections.

75. Poles Type 22-AL Direct Bury, Item SPV.0060.315

A Description

The minimum requirements for a 22 ft. direct bury aluminum street lighting pole assembly. All parts not specifically mentioned, which are necessary, or which are regularly furnished in order to provide this pole, shall be furnished, and shall conform in strength, quality of material and workmanship to that usually provided by the engineering practice indicated in this specification. All work shall be according to standard spec 651.

The aluminum street lighting pole assembly to be furnished under this specification is to be round and tapered. The pole assembly shall be complete with shaft, pole cap, hardware, and base coating. All screws and fasteners shall be stainless steel or other approved materials.

The direct bury 22 ft. aluminum street lighting pole assembly shall be according to this specification and City of Milwaukee (DPW-Infrastructure Services Division) Drawing #B-86-31A revised date March 13, 2012.

Minor deviations on the rest of the pole assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by the City of Milwaukee Street Lighting Engineering.

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following.

B Materials

B.1 Pole

The 22 ft. aluminum pole shaft shall be tapered from the top of the pole to the ground line. Horizontal and vertical stability shall be obtained by welding a 4" channel across the bottom of the shaft in line with the cable entrance holes. The channel is to extend 1" past the shaft wall. Dimensions from the pole top to the bracket mounting plate and the ground line to the top of the pole shall be rigidly adhered to.

Cable entrance holes shall be provided on both sides of the pole and shall be 2" diameter (minimum) shall be located 12" below ground line and shall have grommets installed to prevent damage to the cable. They shall be 90 degrees from the mounting brackets.

The pole cap may be either cast, stamped, spun, etc., and have provisions to affix the cap firmly to the shaft.

The base coating shall be painted, sprayed or dipped. Both the inside and outside of the shaft shall be coated from the bottom of the shaft to a point 2" ± above the ground line. The base coating shall be a Polyamide Epoxy Pittsburgh Aquapon or equal, applied un-thinned and shall be applied before installing the grommets in the cable entrance holes. The channel welded to the bottom of the shaft must be coated with the same material as above.

The hand hole shall be 4" x 6" nominal. A ¼”-20 tapped hole and ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screw shall be provided in the shaft opposite the hand hole for grounding purposes. Hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the bracket arms and in the same plane with the cable entrance holes.

The 22 ft. aluminum pole assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. The pole design shall meet the latest revision of the AASHTO specifications for this pole as defined in the STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements.

Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin. The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.

All Welding shall be according to the latest applicable A.S.M.E. Standards.

The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

B.2 Pea Gravel

Passing No.8 sieve	0% to 5%

Each unit will require approximately 0.25 cubic yard of pea gravel.

The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter. The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs. (Flat and elongated particles are those having a length more than 5 times the average thickness)	not over 10% by weight

Grading requirements of the pea gravel are as follows:

Passing 3/8-inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%

B.3 Riser Cable

Pole is to be wired as shown on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable shall be 30 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the metal housing. The ground wires shall be spliced inside the metal housing and grounded to the housing and each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

C Construction

The direct bury pole is to be set as illustrated in the plans. The holes are to be 12 or 14 inches in diameter and to a depth of 5 feet. The holes can be bored, hydrovac, or hand dug but all shall be cylindrical. If any part of the hole is within three feet of a buried utility, the holes must be hand dug or hydrovac. No other method of setting poles is acceptable. The poles should be parallel and perpendicular to the horizon once set.

In some cases, the poles are to be installed in areas of concrete walk. Prior to concrete removal, the concrete should be saw cut to allow adequate room for pole and cable installation. Saw cutting for removal should be square or rectangular in shape. The contractor shall be responsible for disposing all debris from excavation and removed from site.

There is to be a minimum 6-inch bed of tamped pea gravel for the pole to set on. Then pea gravel is to be backfill around the pole and be tamped every 12 inches and filled to within 3 inches of finished grade.

In areas where concrete walk was removed, felt paper is to be installed around the base of pole and 3 inches of concrete installed. Concrete shall be the standard 5 bag mix, and the finished surface should match adjacent grades.

Grass areas that were disturbed during construction shall be filled with 3 inches of topsoil and sod to match the adjacent finished grade. Addresses are to be stenciled to the pole as shown on the plan.

D Measurement

The department will measure Poles Type 22-AL Direct Bury 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.0060.315	Poles Type 22-AL Direct Bury	EACH

Payment is full compensation for the pole, riser cables, pea gravel, and all connections.

76. Poles Type 25-AL-BD., Item SPV.0060.320.

A Description

The minimum requirements for a 25’-0” bolt down aluminum street lighting pole assembly. All parts not specifically mentioned, which are necessary, or which are regularly furnished in order to provide this pole, shall be furnished, and shall conform in strength, quality of material and workmanship to that usually provided by the engineering practice indicated in this specification. All work shall be according to standard spec 651.

The aluminum street lighting pole assembly to be furnished under this specification is to be round and tapered. The pole assembly shall be complete with shaft, pole cap, hardware, and base coating. All screws and fasteners shall be stainless steel or other approved materials.

The bolt down 25’-0” aluminum street lighting pole assembly shall be according to this specification and City of Milwaukee (DPW-Infrastructure Services Division) Drawing #B-14-13.

Minor deviations on the rest of the pole assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by the City of Milwaukee Street Lighting Engineering.

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following.

B Materials

B.1 Pole

The 25’-0” aluminum pole shaft shall be tapered from the top of the pole to the mounting plate. Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.

The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11” bolt circle. The mounting slots shall be sized for 1 inch mounting bolts. The base shall be welded to the shaft, so the arms bisect the angle between mounting holes at 45 degrees.

The poles shall be built as a double bracket unit and supplied with one cover plate per pole.

The pole cap is to be cast aluminum and be secured to the pole by three equally spaced ¼”-20 hex head stainless steel screws.

B.2 Hand Hole and Grounding

The hand hole shall be 4" x 6" nominal. A ¼”-20 NC taped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate.

B.3 Loading and Stability

The 25’-0” assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.

All welding shall be according to the latest applicable A.S.M.E. Standards.

The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in in materials and workmanship and will be fit for the particular purpose intended.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

B.4 Riser Cable

Pole is to be wired as shown on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable shall be 30 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the metal housing. The ground wires shall be spliced inside the metal housing and grounded to the housing and each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

C Construction

Install the bolt down pole as specified in the plan and details. After razing the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.

D Measurement

The department will measure Poles Type 25-AL-BD 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.0060.320	Poles Type 25-AL-BD	EACH

Payment is full compensation for the pole, riser cables, and all connections.

77. Poles Type 30-AL-BD, Item SPV.0060.321.

A Description

This special provision describes providing Poles Type 30-AL-BD.

The minimum requirements for a 30’-0” bolt down aluminum street lighting pole assembly. All parts not specifically mentioned, which are necessary, or which are regularly furnished in order to provide this pole, shall be furnished, and shall conform in strength, quality of material and workmanship to that usually provided by the engineering practice indicated in this specification. All work shall be according to standard spec 651.

The aluminum street lighting pole assembly to be furnished under this specification is to be round and tapered. The pole assembly shall be complete with shaft, pole cap, hardware, and base coating. All screws and fasteners shall be stainless steel or other approved materials.

The bolt down 30’-0” aluminum street lighting pole assembly shall be according to this specification and City of Milwaukee (DPW-Infrastructure Services Division) Drawing #B-14-14.

Minor deviations on the rest of the pole assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by the City of Milwaukee Street Lighting Engineering.

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following.

B Materials

Furnish:

B.1 Pole

The 30’-0” aluminum pole shaft shall be tapered from the top of the pole to the mounting plate. Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.

The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11” bolt circle. The mounting slots shall be sized for 1 inch mounting bolts. The base shall be welded to the shaft, so the arms bisect the angle between mounting holes at 45 degrees.

The poles shall be built as a double bracket unit and supplied with one cover plate per pole.

The pole cap is to be cast aluminum and be secured to the pole by three equally spaced ¼”-20 hex head stainless steel screws.

B.2 Hand Hole and Grounding

The hand hole shall be 4" x 6" nominal. A ¼”-20 NC taped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate.

B.3 Loading and Stability

The 30’-0” assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.

All Welding shall be according to the latest applicable A.S.M.E. Standards.

The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

B.4 Riser Cable

Pole is to be wired as shown on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable shall be 35 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the metal housing. The ground wires shall be spliced inside the metal housing and grounded to the housing and each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

C Construction

Install the bolt down pole as specified in the plan and details. After razing the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.

D Measurement

The department will measure Poles Type 30-AL-BD 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.0060.321	Poles Type 30- AL-BD	EACH

Payment is full compensation for the pole, riser cables, and all connections.

78. 40 ft. Wood Poles, Item SPV.0060.324.

A Description

This work shall consist of furnishing and installing wood poles for temporary lighting as shown on plans and according to requirements of the plans, specifications and contract. All necessary miscellaneous hardware and materials needed to complete the installation of the wood poles are considered incidental. After the projects are completed some wood poles will remain in place that have only the series circuitry overhead cables attached. These wood poles will become the property of the City of Milwaukee Street Lighting.

A Material

Furnish a Class 4 wood poles conforming to the American Standard Specifications and Dimensions for Wood Poles (ANSI O5.1.), unless the engineer specifies otherwise.

Shaving

All poles shall be machine shaved the entire length.

Gaining and Drilling

Poles shall be slab gained from the top of the pole to a point 48” below the top of the pole. 1st and 2nd gains are to be drilled with a 11/16 “diameter drill. 1st gain 8” from the top of the pole and 2nd gain 24” below 1st gain.

Incising

All poles shall be incised throughout that portion of the pole surface terminating 1 foot above and 2 feet below the standard ground line per A.W.P.A. Specifications #C8-73.

Treatment

According to the requirements and recommendations of AWPA Standard C1 and the applicable AWPA Commodity Standards. Do not use Creosote for treatment.

Inspection and Acceptance

An independent inspection agency to check the poles shall be inspected per A.W.P.A. Specifications #M2-83. A certified copy of the test report must be delivered with each load shipped.

A.W.P.A. Designations

Reference to A.W.P.A. designation shall mean the latest revision of the particular A.W.P.A. specification and/or test procedure in effect at time this bid is let for the item/product described herein.

Pea Gravel

The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter. The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs. (Flat and elongated particles are those having a length more than 5 times the average thickness)	Not over 10% by weight

Grading requirements of the pea gravel are as follows:

Passing 3/8-inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%
Passing No.8 sieve	0% to 5%

Each unit will require approximately 0.25 cubic yard of pea gravel.

Grounding Electrode and Conductor

Furnish and install an approved 5/8-Inch diameter x 8-foot-long copper clad grounding electrode per NEC, WSEC, and local utility codes. Run a single unbroken length of stranded bare #6 copper wire from the grounding electrode to the top of wood pole leaving a 2-foot coil. Make the electrical connection between the grounding electrode conductor and grounding electrode by the exothermic weld method.

C Construction

Wood Poles shall be installed to an embedment depth of 6 foot for a 40 ft. pole, and according to plan details. The holes can be bored, hydrovac, or hand dug but all shall be cylindrical. If any part of the hole is within three feet of a buried utility, the holes must be hand dug or hydrovac. No other method of setting poles is acceptable. The poles should be blocked and or raked as noted on the construction drawings.

In some cases, the poles are to be installed in areas of concrete walk. Prior to concrete removal, the concrete is to be saw cut to such size to allow for adequate room for pole and cable installation. Saw cutting for removal should be rectangular in shape. The contractor will be responsible for disposing all debris from excavation and sidewalk removal. The spoils are not to be used as backfill.

There is to be a minimum of a 6-inch bed of tamped pea gravel as a base for the pole. The area around the pole is to be backfilled with pea gravel and be tamped every 12 inches and filled to finished grade.

There will be no extras for these materials, which include such items as hardware, clevises, yokes, and all other materials and devices needed to fully complete the job in a neat and orderly fashion.

All fasteners used to attach items to wood poles will be of the appropriate strength steel which has been hot dipped galvanized.

No cable will be directly attached to any pole. Clevises, yokes and other overhead hardware must be used.

D Measurement

The department will measure 40 ft. Wood Poles by the each unit, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.324	40 ft. Wood Poles	EACH

Payment is full compensation for shipping to the site, excavating, and placement of pole,.

79. Secondary Riser, Item SPV.0060.339.

A Description

This special provision describes furnishing and installing City of Milwaukee secondary riser as the plans show.

B Materials

Furnish rigid, 1-inch inner diameter aluminum paip, C type codulet fitting, and all other needed materials in conformance with standard spec 651.2, 652.2, 655.2, 656.2, and 657.2.

C Construction

Install secondary riser according to plan and in conformance with standard spec 651.3, 652.3, 655.3, 656.3, and 657.3.

D Measurement

The department will measure Secondary Riser bid item as 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.0060.339	Secondary Riser	EACH

Payment is full compensation for furnishing and installing Secondary Riser; for furnishing and installing all other items necessary (such as wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, and banding) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

80. Watertight Splices & Connections, Item SPV.0060.343.

A. Description

This section describes materials, general requirements, personnel qualifications, construction methods, and testing requirements used to perform electrical connections/splices required.

All work shall be according to standard spec 651.

B. Materials

Furnish materials conforming to the WSEC, consisting of chapter comm. 16 of the WEC combined with the NEC.

All materials furnished under this contract for street lighting installation are subject to approval by the City of Milwaukee street lighting engineer. A prototype maybe requested for submittal by the engineer with a cable sample installed and spliced for approval prior to field installation.

The contractor shall furnish a complete list of materials to be furnished and used for street lighting. Such list shall include names and addresses of manufactures, together with catalog numbers, certificates of compliance, specifications, and other product information requests by the engineer. The list shall be submitted within 10 calendar days of execution of contract. No material shall be incorporated into the lighting system prior to the written approval of the engineer. Approval does not change the intent of the specifications. The contractor shall not substitute or make changes in material without resubmitting for approval.

Use either the Polaris Edge (ISPB2) or Morris Product submersible insulated connector or else an equal connector that is 3, 4, or 6 Port Pre-Insulated, that is designed for use in below grade boxes, direct burial, and submersible. The Conductors Range from #2/0 - #14 Rated for 600 Volts Dual Rated for CU. or AL.

Use an In-Line Fuse Holder assembly that needs to be 600 Volt Rated, and up to 30 Amps, 1-Pole Breakaway, with copper set screw terminals for LOAD, and Wire Size Range #12 to #8 AWG.

Provide a Fast Acting 5 Amp – 250 Volt fuses, from the recommended fuse list from the In-Line Fuse holder manufacturer.

Waterproof and Tear Resistant cable tags/labels that need to be attached for identifying the circuit. A tag/label per street lighting conductor, and or cable for each branch circuit leg.

C Construction

C.1 General Requirements

Work under items related to the street lighting system shall conform to the National Electrical Code (NEC), 2020 Edition, or the latest edition adopted by the State of Wisconsin, Wisconsin Department of Commerce Chapter Comm 16 (Electrical) State of Wisconsin electrical code, City of Milwaukee code, and these special provisions and good electrical practices. The contractor shall not take advantage of lack of details in plans or these specifications where to do so would conflict with the applicable code and standards.

C.2 Personnel Qualifications

An electrician holding all appropriate licenses (including City of Milwaukee Licenses) shall supervise all work done referring to the street lighting system. **All splices shall be made by an electrician.** For the purposes of this contract, an electrician is a person who served a four year apprenticeship and passed state exams.

C.3 Splices

The contractor shall perform water tight splicing in a pull box. Conductor runs shall be continuous between pole locations, and no splicing of conductors outside the pull box will be allowed. The watertight splices shall reside in the pull box and above the 3 foot wiring coils. The 2#12UF with ground cable (per luminaire) shall be brought to the pole hand hole where it will be spliced with the riser cable to the light fixture. An in-line watertight fuse holder needs to be installed in-line with the hot conductor that leads to the luminaire and should be accessible in pole at the hand hole. Oxide inhibitor (OX4) or equivalent shall be applied on all splice's points.

Contractor is to bundle circuit conductors together and identify circuit at every split point.

Hand hole splices if needed should be completed using a multi-tap connector. The connector should be rated for 600 volts, conductor range #1/0 through #14 AL-CU, have a insulating cover rated at 105 degrees Celsius, and meet or exceed ANSI 119.4 Class A specifications for reliability.

C.4 In Service Distribution Systems

The contractor shall not make splices to any underground connections or to any existing distribution system. As indicated on plans, underground splices and connections to existing underground circuitry will be completed by city electricians.

C.5 Testing

After the city makes preliminary acceptance of the street lighting system, it shall be monitored by the City of Milwaukee, Street Lighting Electrical Services during a 60-calendar day operational "burn in". Final acceptance of the lighting system will be based on its meeting standard operational criteria as stated in these specifications. The contractor shall be responsible for all necessary repairs and adjustments to the lighting system to meet standard operational criteria.

D Measurement

The department will measure this item Watertight Splices and Connections by the each unit, acceptably completed. This covers the multi-port submersible insulated connectors in the pull box, in-line fuse holder assemblies in the pole at the hand hole, and the waterproof and tear resistant cable tags/labels in the 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.0060.343	Watertight Splices & Connections	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials such as the multi-port submersible insulated connectors, in-line fuse holder assemblies, waterproof and Tear Resistant cable tags/labels, and anti-oxidant for wire connections

81. Luminaire Arm Single Member 6-Ft., Item SPV.0060.345

A Description

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following. All work shall be according to standard spec 651.

B Materials

Fabricated per the City of Milwaukee City Spec. and drawing C-87-76.

Bracket arm is 2" schedule 80 Aluminum pipe curved to City Spec's.

Mounting plate is either cast aluminum ½" AA#713 or extruded 6063-T6 bar stock.

C Construction

The bracket shall be attached to the pole with two ½" x 13 NC x 1" long stainless-steel bolts.

D Measurement

The department will measure Luminaire Arm Single Member 6-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.0060.345	Luminaire Arm Single Member 6-Ft.	EACH

Payment is full compensation for the bracket arm, and all connections.

82. Luminaire Arm Single Member 6-Ft. WP Mount, Item SPV.0060.346

A Description

The work under this item is for furnishing and installation of the following material as shown in plans and according to the following.

B Materials

6 ft. Aluminum Mounting Bracket – The aluminum bracket shall be fabricated from 2" aluminum pipe schedule 80. It shall have a 27" rise, and a 9" straight end section that is suited for use with a slipfit luminaire. Wire-The wire shall be copper 2#12 UF with ground wire. One wire shall be black, the other shall be white. The ground wire shall be grounded to fixture. The cable shall conform to NEC Article 339.

Fabricated per City of Milwaukee City Spec. and drawing C-81-27.q.

C Construction

Mounting height-The height to light center shall be 26' unless otherwise specified on the drawing or indicated in the field by the engineer. The bracket shall be attached to the wood pole with two 3/8"x 3" long) galvanized wood lag bolts, and one 5/8"x (10" to 12" long) galvanized through bolt with galvanized washers and nut.

D Measurement

The department will measure Luminaire Arm Single Member 6-Ft. WP Mount by the 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.0060.346	Luminaire Arm Single Member 6-Ft.WP Mount	EACH

Payment is full compensation for the bracket arm, and all connections.

83. Install A21-A26 Mounting Clamp (Single Bracket), Item SPV.0060.355.

A Description

The A21-A26 two (2) piece mounting clamp is fabricated for the City of Milwaukee. The clamp is furnished and installed as hereinafter specified. All work shall be in accordance with section 651.

B Materials

The two piece mounting clamp is cast aluminum alloy #713 and is fabricated per City Specification.

Drawings: D-79-9 (Front Bracket Plate), D-79-10 (Rear Bracket Plate).

Manufacturer: City of Milwaukee Street Lighting Shop

Purchase from the City of Milwaukee

Contact Storeroom Inventory Manager at (414) 286-5947

C Construction

The clamp shall be attached to the pole by aligning the cable slot on the pole with cable slot on bracket and securing bracket to pole using four stainless steel 1/2” bolts, washers, lock washers and nuts.

D Measurement

The department will measure Install A21-A26 Mounting Clamp (Single Bracket) by each unit, acceptably completed. Measure two halves as one complete unit for each unit of measure.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.355	Install A21-A26 Mounting Clamp (Single Bracket)	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

84. City Furnished Luminaire Utility High Pressure Sodium, Item SPV.0060.366.

A Description

The work under this item is for installing high pressure sodium utility luminaires as indicated in plans. All work shall be according to standard spec 651.

B Materials

High pressure sodium utility luminaires are furnished by the City of Milwaukee per City Spec, and drawing. Ensure proper operation and function prior to mounting.

C Construction

Pick up luminaires from the City of Milwaukee yard located at 1540 W. Canal Street. Contact person is William Olson at our street lighting shop (414) 286-5953 to coordinate pick up.

The luminaire requires 3 wire operation at 240 volt. The luminaire shall be attached to the 6 ft. aluminum bracket arm using the supplied hardware.

Perform all splices and connections required for the operation of luminaire.

D Measurement

The department will measure Installing City Furnished Luminaires Utility High Pressure Sodium 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.0060.366	Installing City Furnished Luminaires Utility High Pressure Sodium	EACH

Payment is full compensation for installing city furnished high pressure sodium luminaires; for making all connections; and for all testing

85. Luminaire Utility LED 1, SPV.0060.374.

A Description

Furnish and install street lighting fixture according to current City of Milwaukee Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

Furnish Luminaire Utility 1LED with I.E.S. Type 2 Light Distribution (NEMA label '1LED2')

Cree RSWM-A-HT-2ME-9L-30K7-UL-GY-N-Q1-SS

Philips Road Focus RFM-72W32LED-3K-G2-R2M-UNV-DMG-FAWS4-RCD7-PH9-SP2-GY3

Or approved equal.

TECHNICAL SPECIFICATIONS:

All features below shall be incorporated into the equipment and all items shall be furnished and installed into a complete unit ready for operation.

TYPE:

The LED luminaires purchased under this contract will be of Cree Inc, RSW series, Philips Road Focus RFM series, or approved equal with the above order number. The luminaires shall be designed so it can efficiently produce uniform illumination according to I.E.S. Type II light distribution according to the lighting plan.

HOUSINGS: The housing and door shall be rugged, high quality, cast aluminum for maximum strength, durability and lasting beauty. All castings shall be free from pits, blowholes, or other irregularities. All edges are to be free from burrs.

1.Housing: The housing shall have an integral leveling pad or other suitable means for quick, easy and proper positioning of the luminaire.

2. Door: The door shall be hinged and easily opened for routine maintenance. All component parts shall be easily accessible with the lower housing opened. Tool-less entry is required.

3. Leveling: A bubble level is to be located inside the electrical compartment for easy leveling at installation.

4. Hinges: Hinges shall be so constructed and designed to accurately position the door and assure a positive locking with the housing. The hinges shall be provided with a safety catch to prevent the accidental disengagement of the door during servicing.

5. Finish: The entire housing shall be polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process shall yield a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

6. Color: The luminaire shall be grey in color unless otherwise specified.

7. Label: There shall be a NEMA label '1LED2' clearly visible at 30 feet height attached to the door of the luminaire.

In addition, the luminaire complete model number and manufacturing date shall be indicated inside the housing.

LED/OPTICAL ASSEMBLY:

The LED assembly is to be chip on board. The LED module is to be enclosed and sealed with a borosilicate Prismatic Glass optical assembly. The combination shall be NEMA IP66 rated for dust and water resistant. The L70, per IES TM-21, must be greater or equal to 100,000 hours of operational time at 25 degrees Centigrade.

The color temperature is to be 3,000K CCT.

POWER SUPPLY:

The Electronic driver must have an expected life of 100,000 hours at a 25°C ambient.

It is to be rated at 240 volts, 60Hz. A driver with multiple input voltages can be supplied as long as it can operate at 240 volts.

SURGE PROTECTION

A surge protector which provides a minimum of 20kV/10kA protection as per IEEE/ANSI C62.41 Category C is to be included. There shall be a visual indicator showing the surge protector is operational.

TERMINAL BLOCK: A heavy duty terminal block shall be provided which will accept wire sizes up to #6 A.W.G. The terminal block shall be compatible with either aluminum or copper wire.

MOUNTING: Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. Provide a bolt clamping mechanism with 3G vibration rating per ANSI C136.

HARDWARE: All nuts, bolts, latches, etc. furnished with the luminaire shall be fabricated from stainless steel or non-ferrous materials.

PHOTOCONTROL: No photocell is needed, but a shorting cap and a 7-pins socket are required.

WARRANTY: The contractor and/or the manufacturer warrants that goods sold hereunder will be merchantable quality, will conform to applicable specifications, drawings designs, samples or descriptions, will be free from defects in material and workmanship and will be fit for the particular purpose intended by City of Milwaukee.

i. This warranty will remain in effect for 10 years from date of acceptance.

ii. Under this provision, the contractor and/or manufacturer agrees to repair or replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the city.

C Construction

Install lighting fixture on the mounting bracket on the pole according to manufacturer standards. the transformer base/hand hole shall be included per applicable details within design set.

D Measurement

The department will measure Luminaire Utility LED 1 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.0060.374	Luminaire Utility LED 1	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

86. Luminaire Utility LED 2, SPV.0060.375

A Description

Furnish and install street lighting fixture according to current City of Milwaukee Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

Furnish Luminaire Utility 2LED with I.E.S. Type 3 Light Distribution (NEMA label '2LED3')

Cree RSWL-A-HT-3ME-14L-30K7-UL-GY-N-4BLT-Q4

Philips Road Focus RFM-135W-40LED3K-G2-R3M-UNV-DMG-FAWS4-RCD7-PH9-SP2 (with FAW set at position 4)

Or Approved Equal.

TECHNICAL SPECIFICATIONS:

All features below shall be incorporated into the equipment and all items shall be furnished and installed into a complete unit ready for operation.

TYPE:

The LED luminaires purchased under this contract will be of Cree Inc, RSW series, Philips Road Focus RFM series, or approved equal with the above order number. The luminaires shall be designed so it can efficiently produce uniform illumination according to I.E.S. Type III light distribution according to the lighting plan.

HOUSINGS: The housing and door shall be rugged, high quality, cast aluminum for maximum strength, durability and lasting beauty. All castings shall be free from pits, blowholes, or other irregularities. All edges are to be free from burrs.

1. Housing: The housing shall have an integral leveling pad or other suitable means for quick, easy and proper positioning of the luminaire.
2. Door: The door shall be hinged and easily opened for routine maintenance. All component parts shall be easily accessible with the lower housing opened. Tool-less entry is required.
3. Leveling: A Bubble level is to be located inside the electrical compartment for easy leveling at installation.
4. Hinges: Hinges shall be so constructed and designed to accurately position the door and assure a positive locking with the housing. The hinges shall be provided with a safety catch to prevent the accidental disengagement of the door during servicing.
5. Finish: The entire housing shall be polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process shall yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).
6. Color: The luminaire shall be grey in color unless otherwise specified.
7. Label: There shall be a NEMA label '2LED3' clearly visible at 26 feet height attached to the door of the luminaire.

   In addition, the luminaire complete model number and manufacturing date shall be indicated inside the housing.

LED/OPTICAL ASSEMBLY:

The LED assembly is to be chip on board. The LED module is to be enclosed and sealed with a borosilicate Prismatic Glass optical assembly. The combination shall be NEMA IP66 rated for dust and water resistant. The L70, per IES TM-21, must be greater or equal to 100,000 hours of operational time at 25 degrees Centigrade.

The color temperature is to be 3,000K CCT.

POWER SUPPLY:

The Electronic driver must have an expected life of 100,000 hours at a 25°C ambient.

It is to be rated at 240 volts, 60Hz. A driver with multiple input voltages can be supplied as long as it can operate at 240 volts.

SURGE PROTECTION

A surge protector which provides a minimum of 20kV/10kA protection as per IEEE/ANSI C62.41 Category C is to be included. There shall be a visual indicator showing the surge protector is operational.

TERMINAL BLOCK: A heavy duty terminal block shall be provided which will accept wire sizes up to #6 A.W.G. The terminal block shall be compatible with either aluminum or copper wire.

MOUNTING: Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. Provide a bolt clamping mechanism with 3G vibration rating per ANSI C136.

HARDWARE: All nuts, bolts, latches, etc. furnished with the luminaire shall be fabricated from stainless steel or non-ferrous materials.

PHOTOCONTROL: No photocell is needed, but a shorting cap and a 7-pins socket are required.

WARRANTY: The contractor and/or the manufacturer warrants that goods sold hereunder will be merchantable quality, will conform to applicable specifications, drawings designs, samples or descriptions, will be free from defects in material and workmanship and will be fit for the particular purpose intended by City of Milwaukee.

i. This warranty will remain in effect for 10 years from date of acceptance.

ii. Under this provision, the contractor and/or manufacturer agrees to repair or replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the city.

C Construction

Install lighting fixture on the mounting bracket on the pole according to manufacturer standards. Provisions for inserting 2#12UF with ground riser cable between the fixture and cable connecting point at the transformer base/ hand hole shall be included per applicable details within design set.

D Measurement

The department will measure Luminaire Utility LED 2 by the each, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.375	Luminaire Utility LED 2	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

87. Luminaire Utility LED 3, Item SPV.0060.376.

A Description

Furnish and install street lighting fixture according to current City of Milwaukee Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

Cree RSWL-A-HT-2ME-30K7-UL-GY-N-4BLT-Q9,

Philips RoadFocus RFM-160W48LED-3K-G2-R2M-UNV-DMG-FAWS7-RCD7-PH9-SP2-GY3 or approved equal.

TECHNICAL SPECIFICATIONS: All features below shall be incorporated into the equipment and all items shall be furnished and installed into a complete unit ready for operation.

TYPE: The LED luminaires purchased under this contract will be of Cree Inc, RSW series, Philips RoadStar RFM series, or approved equal with the above order number. The luminaires shall be designed so it can efficiently produce uniform illumination according to I.E.S. Type III light distribution according to the lighting plan.

A. HOUSINGS: The housing and door shall be rugged, high quality, cast aluminum for maximum strength, durability and lasting beauty. All castings shall be free from pits, blowholes, or other irregularities. All edges are to be free from burrs.

   1. Housing: The housing shall have an integral leveling pad or other suitable means for quick, easy and proper positioning of the luminaire.

   2. Door: The door shall be hinged and easily opened for routine maintenance. All component parts shall be easily accessible with the lower housing opened. Tool-less entry is required.

   3. Leveling: A Bubble level is to be located inside the electrical compartment for easy leveling at installation.

   4. Hinges: Hinges shall be so constructed and designed to accurately position the door and assure a positive locking with the housing. The hinges shall be provided with a safety catch to prevent the accidental disengagement of the door during servicing.

   5. Finish: The entire housing shall be polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process shall yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

   6. Color: The luminaire shall be grey in color unless otherwise specified.

   7. Label: There shall be a NEMA label ‘3LED3’ clearly visible at 30 feet height attached to the door of the luminaire.

      In addition, the luminaire complete model number and manufacturing date shall be indicated inside the housing.

B. LED/OPTICAL ASSEMBLY:

The LED assembly is to be chip on board. The LED module is to be enclosed and sealed with a borosilicate Prismatic Glass optical assembly. The combination shall be NEMA IP66 rated for dust and water resistant. The L_{70}, per IES TM-21, must be greater or equal to 100,000 hours of operational time at 25 degrees Centigrade.

The color temperature is to be 3,000K CCT.

C. POWER SUPPLY:

The Electronic driver must have an expected life of 100,000 hours at a 25°C ambient.

It is to be rated at 240 volts, 60Hz. A driver with multiple input voltages can be supplied as long as it can operate at 240 volts.

D. SURGE PROTECTION

A surge protector which provides a minimum of 20kV/10kA protection as per IEEE/ANSI C62.41 Category C is to be included. There shall be a visual indicator showing the surge protector is operational.

E. TERMINAL BLOCK: A heavy duty terminal block shall be provided which will accept wire sizes up to #6 A.W.G. The terminal block shall be compatible with either aluminum or copper wire.

F. MOUNTING: Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. Provide a 4-bolt clamping mechanism with 3G vibration rating per ANSI C136.

G. HARDWARE: All nuts, bolts, latches, etc. furnished with the luminaire shall be fabricated from stainless steel or non-ferrous materials.

H. PHOTOCONTROL: There is to be neither a photocell supplied nor a photocell socket in the housing.

WARRANTY: The contractor and/or the manufacturer warrants that goods sold hereunder will be merchantable quality, will conform to applicable specifications, drawings designs, samples or descriptions, will be free from defects in material and workmanship and will be fit for the particular purpose intended by City of Milwaukee.

i. This warranty will remain in effect for 10 years from date of acceptance.

ii. Under this provision, the contractor and/or manufacturer agrees to repair or replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the city.

C Construction

Install lighting fixture on the 8-foot mounting bracket on the pole according to current City of Milwaukee standards. Provisions for Installing City Furnished Luminaires Utility High Pressure Sodium 2#12UF cable between the fixture and cable connecting point at the transformer base shall be included per City of Milwaukee standards.

D Measurement

The department will measure Luminaire Utility LED 3 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.0060.367	Luminaire Utility LED 3	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

88. Remove Luminaire Complete, Item SPV.0060.387

A Description

This work shall consist of the removal of existing street lighting luminaire as shown in the plans.

B (Vacant)

C Construction

The contractor is responsible to disconnect all cables and wiring that is mounted on or in the poles and carefully remove luminaire from street light pole.

Contractor is responsible to protect and deliver the removed LED street lighting equipment to 1540 West Canal Street, Milwaukee, Wisconsin. The contractor should make arrangements for the delivery of this material between the hours of 7:30 AM and 2:30 PM and call 24 hours in advance (telephone (414) 286-5944). No delivery will be accepted after 2:30 PM. Contractor shall properly dispose of HPS materials off site.

D Measurement

The department will measure the Remove Luminaire Complete by each pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.387	Remove Luminaire Complete	EACH

Payment is full compensation for removal of complete measured as provided above, will be paid for at the contract unit price each, which price will be payment in full for the removal of luminaire.

89. Adjusting CUC Manhole Covers, Item SPV.0060.400.

A Description

This special provision describes adjusting the existing chimney of the block, precast, or brick round manholes, furnishing, installing and removing protection of the cables in the manhole during adjustment operations. Perform work according to the standard specifications, the provisions of the article Adjusting Manhole Covers, as shown on the plans, and as hereinafter specified.

B Materials

Furnish and install materials that conform to the requirements of standard spec 519. Salvage and reinstall existing covers on the manholes. The city will supply covers designated for replacement. Contractor shall contact Karen Rogney at (414) 286-3242 to obtain the “Castings Requisitions Form” required to obtain the covers. Contractor shall contact Ricardo Lopez, Inventory Clerk at (414) 286-6123 prior to obtaining the frames and lids from the DPW Field Headquarters at 3850 N. 35th St. Contractor must have the “Castings Requisitions Form” in hand in order to obtain the castings.

C Construction

Report any pre-existing problems to Mr. Curt Campagna, CUC Manhole Maintenance Manager at (414) 286-5967 three working days in advance of any construction on manholes.

Before removing the pavement around the manhole, the contractor shall place a ¾-inch plywood cover or equal over existing active Street Lighting, Traffic Control, Communications or private vendor electrical cables. This cover shall be properly supported to/at the manhole floor.

Break out and remove pavement around manhole. Remove existing covers and store and secure them properly. Any damaged, lost, or stolen covers shall be the responsibility of the contractor and shall be replaced at contractor’s expense.

Remove existing chimney to surface of concrete roof slab. If manhole does not have an existing concrete roof slab, remove sufficient chimney as to provide adequate corbel to fit new cast iron frame and cover.

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

After completion of paving, remove the temporary ¾-inch plywood cover or equal which is over the existing electrical cables in the manhole as mentioned above.

Notify Mr. Campagna three working days in advance of completion of each manhole adjustment, for inspection and acceptance of work performed. The contractor will receive no payment until the above work is approved by City Underground Conduits.

D Measurement

The department will measure Adjusting CUC Manhole Cover 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.0060.400	Adjusting CUC Manhole Covers	EACH

Payment is full compensation for furnishing all required materials, exclusive of frames, grates, or lids available and designated for adjusting; for removing, reinstalling and adjusting the covers; and for furnishing all labor, tools, equipment and incidentals necessary for adjusting each cover, complete according to the requirements of the plans and contract. Covers to be adjusted and which are rendered unfit for use by the contractor through the contractor's operations will be replaced by the contractor in kind at the contractor's own cost and expense.

90. Installing Conduit Into Existing Manhole, Item SPV.0060.425.

A Description

This special provision describes providing locating existing conduit system manholes and installing new conduit into those manholes at the locations shown on the plans. The contractor shall verify existing conduit manhole locations with the City of Milwaukee, and shall maintain any existing conductors, fibers, and conduit paths without interruption or damage. Repair and restoration of all disturbed areas resulting from the work shall be according to the pertinent provisions of the standard specifications, and as hereinafter provided.

B Materials

Furnish conduit, as provided and paid for under other items in this contract. All materials shall conform to the pertinent provisions of the standard specifications unless otherwise noted.

C Construction

Carefully expose the outside of the existing structure without disturbing any existing conduits or cabling.

Drill the appropriate sized hole in a concrete structure or saw and remove full sections of block or bricks from the existing structure for the entering of conduit at a location within the structure that will not disturb the existing cabling and will not hinder the installation of new cabling within the installed conduit. This work may include the removal of the existing abandoned conduit from the structure to allow for the installation of the new conduits as indicated on the plans.

Fill any void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure.

Carefully tamp backfill into place.

All disturbed areas shall be repaired and restored in kind.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.425	Installing Conduit Into Existing Manhole	EACH

Payment is full compensation for drilling holes; removing blocks: removing bricks: removing abandoned conduit; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for disposal of surplus materials; for making inspections; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

91. Luminaires Underdeck LED, Item SPV.0060.876.

A Description

This special provision describes furnishing and installing LED underdeck luminaires including, liquid-tight flexible metallic conduit, identification plaque, “L” shape stainless steel mounting plate, hardware and fixture wires at the locations shown on the plan.

B Materials

Holophane W4GLED10C30KT3M-MVOLT-DMGTP-BKSDP

Leotek ES1-24H-MV-WW-FT-BK-350-PC(with shorting cap) or approved equal.

Luminaires shall conform to applicable portions of standard spec 651.2, 659.2.2 and amendments specified in Freeway Lighting Systems special provisions.

Luminaire wattage shall not exceed 100Watts, rated for 240V, type IV distribution with BUG rating less than B1U4G3. The luminaire shall be equipped with double pole fuse holder and 5-amp KTK fuses. Plaque I.D. shall confirm WisDOT standards.

Furnish shop drawings as specified in 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient details including but limited to luminaire catalog cuts, Two references from government or semi-government agencies currently using the same luminaires, dimming features, luminaire IES distribution, LED driver catalog, Surge Protector catalog, isofootcandle chart with maximum candela point and half candela trace isocandela diagram, number of LEDs, Initial lumens, Lumen depreciation at 50,000 hours, L70 hours, System Wattage at 240V, and IES files on disc to allow satisfactory review and show the dimensions of all equipment shown in the plans.

Luminaires: Luminaires shall be constructed of rugged cast aluminum with integral, weather-tight LED driver components with high performance aluminum heat-sinks. Each luminaire shall use a terminal block for power input suitable for #4 to #14 AWG wire. The luminaire shall be designed for surface mounting capable of being attached vertical to flat surface of the plate. The luminaire shall be UL listed, IP 66 rated and RoHS compliant for lead and mercury standards. The maximum weight of the luminaire shall not be more than 35Lbs with 1.3 EPA.

Electronic Components: Each luminaire shall accommodate varied lighting output from high brightness, 3000K (+/-500k per full unit), minimum 70 CRI, long life LED sources. Drivers shall operate across 120-277V, 50/60 Hertz as standard. LED drivers shall have a power factor greater than 90% and THD less than 20% of full load. The luminaire shall also be equipped with a quick-disconnect plug

The luminaire shall be equipped with 10KA surge protection device and LED indicator showing status of surge protection device visible from a person standing on the adjacent road. Surge protection shall be tested according to ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 scenario 1 category C high exposure 20KV/10KA waveforms.

Optical / Illumination Performance: Luminaire shall provide uniform lighting levels within the roadway section under the structure. The minimum average foot-candle shall be no less than 0.9fc with average/minimum ratio no more than 3.0. Contractor shall provide photometric computations meeting the lighting criteria.

Luminaire Finish: The luminaire housing shall be all aluminum with factory finished durable corrosion and UV resistant gray electrostatically applied thermoset powder-coat which shall be tested according to ANSI B117. Housing access shall be tool-free.

Mounting Plate: The luminaire mounting plate shall be stainless steel “L” shape, made of Type 304 stainless steel, not less than gauge 10. Exterior surfaces shall have a smooth polished finish. When specified for attachment to a structure, the plate shall be suitable for surface mounting, complete with external stainless steel mounting lugs or brackets welded to the plate. The maximum weight of the plate shall not be more than 35Lbs with 2.8 EPA including all hardware.

C Construction: Luminaire shall be installed surface mounted on “L” shape plate as shown on the plans and as directed by the engineer according to pertinent requirements of the standard spec 659.3. Install plaque I.D. as per the WisDOT Standards.

The “L” shape plate shall be either attached the luminaire mounting assembly or directly to the structure as shown on the plans. Provide necessary hardware and mounting materials needed. All hardware and mounting materials shall be stainless steel unless noted otherwise. The plate shall be mounted such that the vertical face of the plate is parallel to the roadway to be lit. The mounting may vary by each location; the mounting holes shall be drilled as needed to keep the vertical surface of the plate parallel to the roadway.

The independent testing, vibration testing, warranty, and submittals shall be done according to the requirements specified in Freeway Lighting System special provision.

D Measurement: The department will measure Luminaires Underdeck LED by each unit installed, 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.0060.876	Luminaires Underdeck LED	EACH

Payment is full compensation for furnishing and installing all materials, including luminaire, “L” shape plate, wires, flexible conduits, plaque I.D., accessories, hardware and fittings necessary to install the luminaire fully operational

92. Marking Line Epoxy, 12-Inch, Item SPV.0090.001.

A Description

This special provision describes furnishing and installing Marking Line Epoxy, 12-inch as directed by the engineer, as shown on the drawings and as hereinafter provided.

Perform work under these items according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor’s expense.

D Measurement

The department will measure Marking Line Epoxy, 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 item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Marking Line Epoxy, 12-Inch	LF

Payment is full compensation for preparing the surface, furnishing and installing all materials and incidentals necessary to complete the work.

93. Concrete Curb & Gutter Integral 31-Inch, Item SPV.0090.002.

A Description

This special provision describes the construction of Concrete Curb and Gutter Integral 31-inch as hereinafter provided.

B (Vacant)

C Construction

Construction Concrete Curb and Gutter Integral 31-Inch according to the requirements in standard spec 601.3 and as shown on the plans.

D Measurement

The department will measure Concrete Curb and Gutter Integral 31-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.0090.002	Concrete Curb & Gutter Integral 31-Inch	LF

Payment is full compensation for providing Concrete Curb and Gutter Integral 31-Inch according to standard spec 601.5 and all incidentals necessary to complete the work.

94. Electrical Cable Type 3#6 AL Triplex, Item SPV.0090.302.

A Description

Furnish and install service cable according to current City of Milwaukee Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

#6 Triplex ASCR (Aluminum conductor steel reinforced)

#6 stranded aluminum wires with 3/64 polyethylene insulation 7 strands 1 #6 bare neutral, 6 strands of Aluminum conductors around a steel messenger, ASCR 6/1

Voltage of 600 volts phase-to-phase or less and at conductor temperatures not to exceed 75°C for polyethylene insulated conductors or 90°C for crosslinked polyethylene (XLP) insulated conductors.

Service drop cable meets or exceeds the following ASTM specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes
- B-231 Aluminum Conductors, Concentric-Lay-Stranded
- B-232 Aluminum Conductors, Concentric-Lay-Stranded, Coated Steel Reinforced (ACSR)
- B-399 Stranded 6201-T81 Aluminum Alloy Conductors
- B-901 Compressed Round Stranded Aluminum Conductors Using Single Input Wire

Conductors are concentrically stranded, compressed 1350-H19 aluminum. Insulated with either polyethylene or crosslinked polyethylene (XLP). Neutral messengers are concentrically stranded 6201, AAC, or ACSR. Cable meets or exceeds all applicable requirements of ANSI/ICEA S-76-474.

C Construction

The cable shall be installed to supply power, usually from a pole, to the user's service head where connection to the service entrance cable is made. All splices must be completed by the contractor unless otherwise designated on plans.

D Measurement

The department will measure Electrical Cable Type 3#6 AL 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	Electrical Cable Type 3#6 AL	LF

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

95. Electrical Cable Type 2#2/1#4 AL Triplex, Item SPV.0090.304.

A Description

Furnish and install service cable according to current City of Milwaukee

Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

2#2/1#4 Triplex ASCR (Aluminum conductor steel reinforced)

Unless otherwise specified, the cable to be furnished shall comply with the manufacture and test requirements of the Insulated Cable Engineers Association (ICEA) specifications No S-61-402, NEMA WC5, and No S-66-524 NEMA WC7, latest revisions.

2 #2 stranded aluminum wires with 3/64 polyethylene insulation 7 strands

1 #4 bare neutral, 6 strands of Aluminum conductors around a steel messenger, ASCR 6/1

B.2 Voltage

Voltage of 600 volts phase-to-phase or less and at conductor temperatures not to exceed 75°C for polyethylene insulated conductors or 90°C for crosslinked polyethylene (XLP) insulated conductors.

B.3 Specifications

Service drop cable meets or exceeds the following ASTM specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes.
- B-231 Aluminum Conductors, Concentric-Lay-Stranded.
- B-232 Aluminum Conductors, Concentric-Lay-Stranded, Coated Steel Reinforced (ACSR).
- B-399 Stranded 6201-T81 Aluminum Alloy Conductors.
- B-901 Compressed Round Stranded Aluminum Conductors Using Single Input Wire.

B.4 Insulated Conductors

All Aluminum conductors are concentrically stranded and shall be Class A or Class B 3% compressed 1350-H19 aluminum. Solid conductors shall be H16 temper.

B.5 Insulation

Shall be 600V either black extruded high molecular weight polyethylene (PE) or black extruded crosslinked polyethylene (XLP). Insulation shall be a nominal 45 mils thickness.

B.6 Bare Neutral Messenger

Neutral messengers are concentrically stranded 6201, AAC, or ACSR. Cable meets or exceeds all applicable requirements of ANSI/ICEA S-76-474. The direction of lay of the outer layer is right hand.

B.7 Protection of Ends

Before shipment, the ends of all wire and cable shall be carefully sealed to protect the insulation from moisture. Both ends of the wire and cable shall be accessible for testing but shall be covered and protected from injury.

B.8 Lengths

Ten percent of the reels of any one item may be shipped in random length of not less 50% of the specified nominal length. This tolerance is permitted so that the cable manufacturers may avoid brazing together lengths of copper conductor. All conductors shall be free from brazes or splices.

B.9 Service Drop Cable Schedule

Triplex Service Drop 600 Volt PE or XLP ASCR reduced size neutral messenger.

CITY OF MILW P/N	*CODE WORD*	*SIZE AWG*	*NO# WIRE*	*INSUL (INS)*	*BARE NTRL SIZE AWG*	*BARE NTRL NO# WIRE*	*REEL LNG (FT)*	*WGHT LBS/ 1000' ALUM*	*WGHT LBS/ 1000' CABLE*
3400-032	Cockle 2	7	0.045	4	6/1	1800'	163	227	
3400-034	Strombus	4	7	0.045	6	6/1	1500'	103	154
3400-036	Voluta 6*	7	0.045	6	6/1	2200'	73	116	

* ACSR Full Size Neutral Messenger

C Construction

The cable shall be installed to supply power, usually from a pole-mounted transformer, to

the user's service head where connection to the service entrance cable is made. All splices must be completed by the contractor unless otherwise designated on plans.

D Measurement

The department will measure Electrical Cable Type 2#2/1#4 AL Triplex 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.0090.304	Electrical Cable Type 2#2/1#4 AL Triplex	LF

Payment is full compensation for furnishing labor, equipment, coordination and all materials and incidentals necessary to complete the work.

96. Electrical Cable Type 3#4/1#8 XLP, Item SPV.0090.307.

A Description

This special provision describes furnishing and installing service cable according to current City of Milwaukee Electrical methods and National Electrical Code standards. The service cable shall consist of four cross-linked polyethylene covered, stranded, copper conductors. All work shall be according to Wisconsin DOT Standard Specifications standard spec 651.

B Materials

2.1.1

Unless otherwise specified, the cable to be furnished shall comply with the manufacture and test requirements of the Insulated Cable Engineers Association (ICEA) Specification No. S-61-402, NEMA WC5, latest revision.

2.1.2 Conductors

The conductors shall be of soft round annealed uncoated stranded copper conductor per ASTM B-3, ASTM B-8, and UL Standard UL-44. Conductors No. 8 A.W.G. or larger shall be stranded. Conductors smaller than No. 8 A.W.G. shall be solid unless otherwise specified. Stranding must meet the requirements of ASTM B8, Class B.

2.2 Insulation

2.2.1 600V

The insulation for cable rated 600V shall be cross XLPE thermosetting chemically crosslinked polyethylene insulation according to industry standard ICEA Pub. No. S-95-658/Nema WC-70 (2009), latest revision, and shall be a nominal 45 mils. thickness. Insulation shall meet the ANSI/ASTM D2220-74 (latest revision) accelerated water absorption requirements and -30°C (-22°F) cold bend test with a separator applied between the stranded conductor and insulation to facilitate cable stripping. The outside diameter of the insulating covering must be circular and extruded concentrically over the conductor.

2.2.2 Nominal Thickness

The nominal insulation thickness around each individual conductor shall be not less than 90% of the thickness specified in the schedule.

2.2.3 Color Code

The insulation compound which covers each conductor making up a cable shall be color coded in conformance with the N.E.M.A. Color Code Standard, unless otherwise specified; however, printed color designations as in I.3.2 or I.3.3. will not be acceptable under this specification (see schedule). Individual cables will be black, red, white and green.

2.3 Marking

2.3.1

Identification for each conductor must be provided by colors according to I.M.S.A. Standards. The outer insulation must be marked with the following information at a minimum: conductor size (AWG), 600V, XLPE, USE-2, manufacturer’s name and date of manufacturer. All markings must be a minimum of 1/8-inch (1/8”) in height. Marking shall be at approximately 2 foot intervals. A sequential footage marking must be located on the opposite side of the jacket. All marking must be perfectly legible with permanent white ink.

2.4. Round Cable

2.4.1

This cable shall consist of stranded, uncoated, conductors each concentrically encased with a cross linked polyethylene USE-2 rubber insulation.

2.4.2 Inspection and Tests

Each length of the individual insulated conductor and completed cable shall comply with all requirements of I.C.E.A. Standards S-61-402. Sampling and Test Methods shall be according to Part 6. A certified report of the tests made on the cable to show compliance with this specification may be required prior to shipment. If requested, a sample of the cable covered by the report shall also be submitted.

POWER, CABLE SCHEDULE FOR SPECIFICATION

	3#4/1#8	
Size of Conductor	#4	#8
Number of Conductors	3	1
Number of Wires in Conductor	7	7
Type of Insulation	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt
Insulation Color Code	1-white 1-black 1-red	1-green
Non-Hydroscopic Fill	None	
Moisture Resisting Sheath		
Jacket Thickness	None	

	3#8/1#8	
Size of Conductor	#8	#8
Number of Conductors	3	1
Number of Wires in Conductor	7	7
Type of Insulation	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt
Insulation Color Code	1-white 1-black 1-red	1-green
Non-hydroscopic Fill	None	
Moisture Resisting Sheath		
Jacket Thickness	None	

All conductors shall be uncoated annealed soft copper.

C Construction

The cable shall be installed in P.V.C. conduit when indicated on plans. Any turf damage during installation of cable shall be restored (grass, asphalt or concrete) by the contractor, All splices in luminaires and transformer bases, must be completed by the contractor unless otherwise designated on plans. Do not splice underground in vault or conduit. Do not leave wire or cable ends uncovered or submerged in water.

If the engineer observes this condition, the engineer may reject the entire length of cable or wire. Make all electrical connections and splices with approved pressure or compression type fittings. Cover tape with a liberal coating of an electrical varnish or sealant providing flexible protection from oil, moisture, and corrosion. Obtain the engineer's approval of this electrical coating before using. Extend wire for termination 15 inches beyond the pole hand hole.

For all cables entering each vault, provide an extra loop, approximately 6 feet in length, to remain in each vault. This loop of cable is in addition to the amount needed to reach from the entrance conduit raceway end to the opening in the exiting conduit raceway.

Install conductors in continuous lengths without splices from termination to termination. The contractor may splice only at hand-holes in the bases of poles. At locations where no transformer bases exist, splice at the hand-holes in poles.

D Measurement

The department will measure the Electrical cables, 3#4/1#8 XLP 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	Electrical Cable Type 3#4/1#8 XLP	LF

Payment is full compensation for furnishing labor, equipment, coordination and t and materials for removal of construction debris and site restoration.

97. Remove Aerial Cable, Item SPV.0090.314.

A Description

The work under this item consists of removing temporary overhead service lines as shown on the plans; including all associated guy wires, anchors, and electrical wire; and removing materials from the site.

B (Vacant)

C Construction

Contractor shall properly dispose of materials off site.

D Measurement

The department will measure Removing Aerial Cable by linear foot pole to pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.314	Remove Aerial Cable	LF

Payment is full compensation for all work, for disposal of materials, and for all labor, tools, equipment needed to complete the task.

98. Liquidtight Flexible Nonmetallic Conduit 1 ½-Inch, Item SPV.0090.319.

A Description

This special provision describes furnishing and installing liquidtight flexible nonmetallic conduit for traffic signals and street lighting according to standard spec 652, and as shown in the plan details. All work shall be according to standard spec 651.

B Materials

The liquidtight flexible nonmetallic conduit shall be Type LFNC-B. The conduit shall be nonconductive, noncorrosive to oil, acid, ozone, and alkaline. The conduit shall have a smooth inner surface with integral reinforcement within the conduit wall.

The flexible nonmetallic conduit shall be UL listed for use as indicated in Article 356 of the latest NEC, and for outdoor use and sunlight resistant.

The fittings and adapters shall be of the same manufacturer as the conduit.

C Construction

Install the fittings, adapters, and conduit in conjunction with traffic signals and street lighting. Install per the manufacturer's instructions and as shown on the plans.

D Measurement

The department will measure Liquidtight Flexible Nonmetallic Conduit per size by the linear foot of conduit installed, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.319	Liquidtight Flexible Nonmetallic Conduit 1-1/2-Inch	LF

Payment is full compensation for furnishing and installing the conduit, including the connectors.

99. Electrical Cable 3#4/1#8 XLPE Type USE-2; Item SPV.0090.323; Electrical Cable 3#2/1#8 XLPE Type USE-2, Item SPV.0090.324.

A Description

This special provision describes furnishing and installing service cable according to current City of Milwaukee Electrical methods and National Electrical Code standards. The service cable shall consist of four cross-linked polyethylene covered, stranded, copper conductors. All work shall be according to standard spec 651.

B Materials

B.1.1.

Unless otherwise specified, the cable to be furnished shall comply with the manufacture and test requirements of the Insulated Cable Engineers Association (ICEA) Specification No. S-61-402, NEMA WC5, latest revision.

B.1.2. Conductors

The conductors shall be of soft round annealed uncoated stranded copper conductor per ASTM B-3, ASTM B-8, and UL Standard UL-44. Conductors No. 8 A.W.G. or larger shall be stranded. Conductors smaller than No. 8 A.W.G. shall be solid unless otherwise specified. Stranding must meet the requirements of ASTM B8, Class B.

B.2. Insulation

B.2.1. 600V

The insulation for cable rated 600V shall be cross XLPE thermosetting chemically crosslinked polyethylene insulation according to industry standard ICEA Pub. No. S-95-658/Nema WC-70 (2009), latest revision, and shall be a nominal 45 mils. thickness. Insulation shall meet the ANSI/ASTM D2220-74 (latest revision) accelerated water absorption requirements and -30°C (-22°F) cold bend test with a separator applied between the stranded conductor and insulation to facilitate cable stripping. The outside diameter of the insulating covering must be circular and extruded concentrically over the conductor.

B.2.2. Nominal Thickness

The nominal insulation thickness around each individual conductor shall be not less than 90% of the thickness specified in the schedule.

B.2.3. Color Code

The insulation compound which covers each conductor making up a cable shall be color coded in conformance with the N.E.M.A. Color Code Standard, unless otherwise specified; however, printed color designations as in I.3.2 or I.3.3. will not be acceptable under this specification (see schedule). Individual cables will be black, red, white and green.

B.3. Marking

B.3.1.

Identification for each conductor must be provided by colors according to I.M.S.A. Standards. The outer insulation must be marked with the following information at a minimum: conductor size (AWG), 600V, XLPE, USE-2, manufacturer’s name and date of manufacturer. All markings must be a minimum of 1/8-inch in height. Marking shall be at approximately 2 foot intervals. A sequential footage marking must be located on the opposite side of the jacket. All marking must be perfectly legible with permanent white ink.

B.4. Round Cable

B.4.1.

This cable shall consist of stranded, uncoated, conductors each concentrically encased with a cross linked polyethylene USE-2 rubber insulation.

B.4.2. Inspection and Tests

Each length of the individual insulated conductor and completed cable shall comply with all requirements of I.C.E.A. Standards S-61-402. Sampling and Test Methods shall be according to Part 6. A certified report of the tests made on the cable to show compliance with this specification may be required prior to shipment. If requested, a sample of the cable covered by the report shall also be submitted.

POWER, CABLE SCHEDULE FOR SPECIFICATION

	3#2/1#8		3#4/1#8	
Size of Conductor	#2	#8	#4	#8
Number of Conductors	3	1	3	1
Number of Wires in Conductor	7	7	7	7
Type of Insulation	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt	600 volt	600 volt
Insulation Color Code	1-white 1-black 1-red	1-green	1-white 1-black 1-red	1-green
Non-Hydroscopic Fill	None		None	
Moisture Resisting Sheath				
Jacket Thickness	None		None	
	3#6/1#8		3#8/1#8	
Size of Conductor	#6	#8	#8	#8
Number of Conductors	3	1	3	1
Number of Wires in Conductor	7	7	7	7
Type of Insulation	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)	3 Cross-Linked Polyethylene (XLPE)	Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt	600 volt	600 volt
Insulation Color Code	1-white 1-black 1-red	1-green	1-white 1-black 1-red	1-green
Non-hydroscopic Fill	None		None	
Moisture Resisting Sheath				
Jacket Thickness	None		None	

All conductors shall be uncoated annealed soft copper.

C Construction

The cable shall be installed in P.V.C. conduit when indicated on plans. Any turf damage during installation of cable shall be restored (grass, asphalt or concrete) by the contractor, All splices in luminaires and transformer bases, must be completed by the contractor unless otherwise designated on plans. Do not splice underground in pull box/vault or conduit. Do not leave wire or cable ends uncovered or submerged in water. If the engineer observes this condition, the engineer may reject the entire length of cable or wire. Make all electrical connections and splices with approved pressure or compression type fittings. Cover tape with a liberal coating of an electrical varnish or sealant providing flexible protection from oil, moisture, and corrosion. Obtain the engineer's approval of this electrical coating before using. Extend wire for termination 15 inches beyond the pole hand hole.

For all cables entering each pull box/vault, provide an extra loop, approximately 6 feet in length, to remain in each pull box/vault. This loop of cable is in addition to the amount needed to reach from the entrance conduit raceway end to the opening in the exiting conduit raceway.

Install conductors in continuous lengths without splices from termination to termination. The contractor may splice only at hand-holes in the bases of poles. At locations where no transformer bases exist, splice at the hand-holes in poles.

D Measurement

The department will measure the Electrical Cable 3#4/1#8 XLPE Type USE-2, and Electrical Cable 3#2/1#8 XLPE Type USE-2 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.0090.323	Electrical Cable 3#4/1#8 XLPE Type USE-2	LF
SPV.0090.324	Electrical Cable 3#2/1#8 XLPE Type USE-2	LF

Payment is full compensation for furnishing labor, equipment, coordination and all materials for removal of construction debris and site restoration.

100. 3-Inch HDPE Conduit, Item SPV.0090.325.

A Description

This special provision describes providing high density polyethylene HDPE conduit for lighting, and/or other electrical work.

B Materials

General

Furnish electrical conduit and fittings with a UL or NRTL label on each piece installed.

High-Density Polyethylene HDPE Conduit

Furnish orange, smooth, high-density polyethylene (HDPE), solid-wall conduit rated for outdoor and underground use conforming to ASTM F2160. Use the size the plans show with a size-to-diameter ratio (SDR) of 11.

The construction and testing of the conduit must comply with applicable EIA/TIA, ANSI, and ASTM standards.

Furnish bends, adapters, couplings, fittings, and other materials used to install conduits. They are to meet duct manufacturer's installation recommendations.

Pull Tape

Provide pull tape for empty ducts in the run. The pull tape must have documentation as duct cutting resistant, tensile strength of greater than 1,500 pounds, nominal width of 5/16 inch, and marked every foot. Dry silk or equal.

Contractor must submit a certificate of compliance certifying that the conduit rigid nonmetallic as furnished conform to the above requirements. Send a copy of the certificate of the conduit rigid nonmetallic to:

City of Milwaukee
Infrastructure Services Division
Transportation Section
Street Lighting & City Underground Conduit
841 N. Broadway (Room 920)
Milwaukee WI 53202

C Construction

General

Use conduit of the nominal inside diameter the plans show. Make each run of conduit the distance the plans show or as the engineer directs. Install each run of conduit between adjacent access points using one size for its entire length. A run is the conduit from pull box to pull box, junction box to junction box, or pull box to junction box. If the engineer approves, the contractor may substitute a larger size of conduit than the contract shows for that run.

Install pull tape in each conduit run that will receive future conductors as the conduit is laid.

Cap or plug rigid nonmetallic conduit immediately after installation, unless the conduit terminates in a pull box, and keep capped or plugged until installing the wire or cable. Install end bells on rigid nonmetallic conduit raceway access points before installing pull tape or cable. Ream non-metallic conduits to eliminate internal sharp edges before installing end bells.

Excavate trenches true to line and grade to provide the conduit uniform bearing throughout its length. Do not backfill the trench before inspecting the conduit. Carefully tamp the backfill in place as specified for placing backfill in layers in 651.3. Place at least 0.7 cubic feet of size No. 2 coarse aggregate conforming to standard spec 501.2.7.4.2 directly under each drainage hole.

Installing HDPE Conduit

Install conduit by directional boring, or trenching.

Do not exceed the minimum bending radius of the cable installed in the conduit. Do not pull cable over edges or corners, over or around obstructions, or through unnecessary curves or bends.

Use directional bore installations if the contract specifies.

Repairs are not allowed. Remove broken, chipped, cracked, or impaired lengths of fittings or conduit and replace with new materials. Do not install conduit above ground or on structures.

Marking and Inspecting

Mark the location of each conduit as the plans show.

After the conduit installation is complete, inspect each installed conduit before any wire is pulled. During this inspection, ensure that the conduit raceway is fully open for its entire length. Replace any conduit that the engineer determines is crushed, damaged, or unsatisfactory.

If the engineer directs, expose the conduit at a randomly selected conduit arrow mark. If the distance from that conduit's centerline to a plumb line projected down from the tip of the arrow mark is more than six inches, expose all arrow marked conduits. Destroy arrow marks not meeting the six-inch limit and remark the conduit.

D Measurement

The department will measure 3-Inch HDPE Conduit, by the linear foot of conduit installed acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.325	3-Inch HDPE Conduit	LF

Payment is full compensation for furnishing and installing the conduit, including any necessary connectors.

101. 1-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60, Item SPV.0090.401.

A Description

This special provision describes furnishing and installing cement encased multiple duct conduit packages below grade as shown on the plans and as hereinafter described.

B Materials

B.1 Conduit

Furnish and install DB-60 polyvinyl chloride (PVC) conduit. Conduit will be accepted on the basis of a Manufacturer's Certificate of Compliance and WISDOT field inspection upon delivery to a project.

PVC conduit and fittings shall conform to the requirements of Standard Specifications for Smooth-Wall Poly (Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation, ASTM Designation: F512 (latest edition).

B.2 Conduit Spacers

Furnish and install nonmetallic interlocking base spacers and intermediate spacers that provide a 1-1/2" vertical and 1-1/2" horizontal separation between PVC pipes. The base spacers shall provide a 3" vertical separation from the trench bed to the bottom of the PVC pipes.

B.3 Conduit Bed

Furnish and install a minimum 2" conduit bed of stone chips or crushed stone screenings conforming to the following:

3/8 Inch Crushed Stone Chips

Sieve Sizes	% Passing by Weight
½"	100
3/8"	90-100
No. 8	0-15
No. 30	0-3

Crushed Stone Screenings

Sieve Sizes	% Passing by Weight
½"	100
No. 4	75-100
No. 100	10-25

B.4 Concrete

The type of concrete mix to be used to encase the ducts will be:

Type I Cement	280 lbs
Fly Ash	100 lbs
Sharp Torpedo Sand	3100 lbs
Water	35 gals
Chryso Air 260 or approved equal	2.0 ozs
Chryso Plast 209 or approved equal	7.0 ozs
Air	5%

Mix the materials to provide an approximate 3 inch slump.

B.5 Slurry Backfill

Aggregate slurry backfill consists of No. 1 concrete aggregate Class 'C' concrete mix with the cement deleted.

Fly Ash (Class C)	75 lbs.
Concrete Sand (Damp)	1830 lbs.
No. 1 Concrete Aggregate	1830 lbs.

Mix the materials with water to inundate the aggregate sufficiently to provide an approximate 3 inch slump. Deposit the mix in the trench directly from a concrete transit mix truck.

B.6 Pull Rope

Pull rope specifications will be:

- Flat construction (7/16" to 5/8" wide)
- 100% woven aramid fiber (may include tracer wire)
- 1500 lbs. Minimum pull strength prelubricated
- sequential footage markings for location

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

C Construction

C.1 Excavation

The excavation shall have the minimum or maximum dimensions shown on the plans and as follows:

Number of Ducts Wide	Minimum (Inches)	Maximum (Inches)
1	8 1/2	11
2	14 5/8	17 1/8
3	20 3/4	23 1/4.
4	26 7/8	29 3/8
5	33	35 1/2
6	39 1/8	41 5/8
7	45 1/4	47 3/4
8	51 3/8	53 7/8

These minimum and maximum trench widths apply to standard 4 inch PVC electrical duct only. When required, the excavation may be widened for the handling and placing of materials.

Sheath and brace open-cut trenches as required by code and as necessary to maintain safety. The cost of furnishing, placing and removing of sheathing and bracing shall be included in the unit bid for the work.

The dimensions of the excavation will be governed by the number, configuration and the grade (cover) to which the conduit is to be installed as shown on the plan. The walls of the excavation shall be clean and true.

Prior to excavating trenches, expose the existing manhole and conduit lines. The object of this is to permit adjustments in line and grade to avoid special construction methods. Protect the exposed manhole and conduit from damage.

Lay the conduit at a depth so that sufficient protection from damage is provided. Allowable covers shall be as follows:

The standard cover for mainline conduit is 39 inches and the minimum cover acceptable is 28 inches.

Maintain the standard cover wherever possible and any deviation less than the minimum cover requires the approval of the engineer.

Grade the trench to have a minimum pitch of three inches per 100 feet. When an obstruction is encountered in the trench and it is necessary to excavate a deeper trench than would otherwise be required, in order to obtain drainage, refer the matter to the engineer to determine whether the extra excavation should be made.

In grading a trench for mainline conduit, there are three general practices for direction of pitch.

(a) When grading a trench in a street with a level grade, the high point of the trench bottom should ordinarily be centered between manholes and pitched downward equally toward each manhole.

(b) Where the street slopes in one direction, locate the high point of the trench bottom approximately 30 feet from the end wall of the higher manhole and grade toward both manholes.

(c) Where a steep grade is encountered, grade the trench at the minimum pitch from the end wall of the higher manhole to a point 20 feet plus or minus toward the lower manhole. From this point, follow the street grade at the standard cover to a point 20 feet plus or minimum away from the end wall of the lower manhole. From this point, the remainder of the section shall be laid at the normal pitch.

After the rough excavation is completed, prepare the bottom of the trench to receive the conduit. Bring the duct bed to the final grade by grading uniformly from the high point to the low or drainage points. Use stone chips or crushed stone screenings to grade the trench. The duct bed shall be a minimum of 2” in depth.

C.2 Placing of Duct

Proceed with placing the ducts as soon as the duct bed has been completed. Inspect all ducts before placing to see that the bores are clean and free from mud, sand, etc. Use only ducts with a smooth bore, free from burrs, rough projections etc. Smooth off burrs or other rough areas likely to damage cable are found in the duct by rasping or scraping.

Place the duct on base spacers with the ends staggered so no two couplings are adjacent. This may be accomplished by the use of the short lengths in stock or cutting back full length sections to the desired lengths. If cut pieces are used, place the cut end at the manhole. Locate the base spacers within 2 feet of the end of each duct and one base spacer located in the middle of the duct.

Use full length pieces for the balance of the conduit line.

Formations of two ducts or more in height are to be carried forward in full formation, that is, as each tier of twenty-foot lengths is laid, the next higher tier of ducts shall then be placed on the intermediate spacers. Place these intermediate spacers on top of the base spacers located within two feet from each duct end and one in the middle of each duct. Place the intermediate spacers and ducts for the remaining tiers. Glue each length into the adjoining coupling. A twist and push on the duct being placed will suffice for a water tight joint. Exercise caution in the driving operation, so that neither the coupling nor the duct will be split or damaged in any way. After the full formation has been completed, place wood trench and duct bracing on the ducts to prevent shifting or floating while the concrete envelope is being placed and during driving operation.

This procedure shall be followed with succeeding lengths, providing spacers at the proper intervals, until sufficient trench footage of completed formation has been placed and is ready to receive concrete encasement.

The terminating point for mainline conduit will be the inside manhole wall. Install a standard end bell fitting flush with the wall on all duct access points.

Install a #10 copper tracer wire along and above the centerline of the duct for encasement in the concrete. The wire shall be 4 feet longer than the run of conduit and be at least 2 feet long at each access point.

Install a pull rope in each run of conduit, as laid. The rope shall be 4 feet longer than the run of conduit and shall be doubled back at least 2 feet at each raceway access point. Anchor the pull rope at each access point in a manner acceptable to the engineer.

C.3 Concreting

Begin concreting after sufficient conduit has been laid and the trench and duct have been inspected. The minimum concrete encasement of the ducts is 3 inches on the top, 2 inches on the sides, and 3 inches on the bottom. After placing, puddle the concrete with a splicing bar or similar tool so that complete duct encasement is accomplished. Remove wood braces used to keep the conduit from floating before the concrete sets completely and the resultant encasement voids filled with concrete.

Allow the concrete encasement to set for a minimum of 6 hours before backfilling is commenced.

C.4 Slurry Backfill

Slurry Backfill. Commence backfilling of the conduit immediately after the duct has been inspected, approved and has set to withstand the load.

An aggregate slurry as specified shall be used to backfill the concrete encased conduit. The trench shall be backfilled to the proposed or existing subgrade. The mix shall be deposited in the trench directly from a concrete transit mix truck.

D Measurement

The department will measure 1-Duct Cement Encased, 4-Inch Rigid Non-Metallic Conduit DB-60, furnished and installed at the locations on the plans, will be measured by the linear foot, acceptably installed. The measured quantity will equal the linear feet of encased duct, based on the distance along the centerline of duct between ends of conduit. City of Milwaukee shall have final acceptance by the linear 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.0090.401.	1-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	LF

Payment is full compensation for furnishing the conduit, conduit bodies, conduit fittings, conduit spacers, end caps and trace wire; for excavating, bedding, encasement and backfilling including any concrete, stone, aggregate slurry, bracing, or other related materials; for disposing of surplus materials; and for making inspections, and for installing the conduit.

102. 2-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60, Item SPV.0090.402.

A Description

This special provision describes furnishing and installing cement encased multiple duct conduit packages below grade as shown on the plans and as hereinafter described.

B Materials

B.1 Conduit

Furnish and install DB-60 polyvinyl chloride (PVC) conduit. Conduit will be accepted on the basis of a Manufacturer’s Certificate of Compliance and WISDOT field inspection upon delivery to a project.

PVC conduit and fittings shall conform to the requirements of Standard Specifications for Smooth-Wall Poly (Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation, ASTM Designation: F512 (latest edition).

B.2 Conduit Spacers

Furnish and install nonmetallic interlocking base spacers and intermediate spacers that provide a 1” vertical and 1” horizontal separation between PVC pipes. The base spacers shall provide a 3” vertical separation from the trench bed to the bottom of the PVC pipes.

B.3 Conduit Bed

Furnish and install a minimum 2” conduit bed of stone chips or crushed stone screenings conforming to the following:

3/8 Inch Crushed Stone Chips

Sieve Sizes	% Passing by Weight
½”	100
3/8”	90-100
No. 8	0-15
No. 30	0-3

Crushed Stone Screenings

Sieve Sizes	% Passing by Weight
½”	100
No. 4	75-100
No. 100	10-25

B.4 Concrete

The type of concrete mix to be used to encase the ducts will be:

Type I Cement	280 lbs
Fly Ash	100 lbs
Sharp Torpedo Sand	3100 lbs
Water	35 gals
Chryso Air 260 or approved equal	2.0 ozs
Chryso Plast 209 or approved equal	7.0 ozs
Air	5%

Mix the materials to provide an approximate 3-inch slump

B.5 Slurry Backfill

Aggregate slurry backfill consists of No. 1 concrete aggregate Class ‘C’ concrete mix with the cement deleted.

Fly Ash (Class C)	75 lbs.
Concrete Sand (Damp)	1830 lbs.
No. 1 Concrete Aggregate	1830 lbs.

Mix the materials with water to inundate the aggregate sufficiently to provide an approximate 3 inch slump. Deposit the mix in the trench directly from a concrete transit mix truck.

B.6 Pull Rope

Pull rope specifications will be:

- Flat construction (7/16” to 5/8” wide)
- 100% woven aramid fiber (may include tracer wire)
- 1500 lbs. Minimum pull strength prelubricated
- sequential footage markings for location

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

C Construction

C.1 Excavation

The excavation shall have the minimum or maximum dimensions shown on the plans and as follows:

Number of Ducts Wide	Minimum (Inches)	Maximum (Inches)
1	8 1/2	11
2	14 1/8	16 5/8
3	19 3/4	22 1/4.
4	25 3/8	27 7/8
5	31	33 1/2
6	36 5/8	39 1/8
7	42 1/4	44 3/4
8	47 7/8	50 3/8

These minimum and maximum trench widths apply to standard 4 inch PVC electrical duct only. When required, the excavation may be widened for the handling and placing of materials.

Sheath and brace open-cut trenches as required by code and as necessary to maintain safety. The cost of furnishing, placing and removing of sheathing and bracing shall be included in the unit bid for the work.

The dimensions of the excavation will be governed by the number, configuration and the grade (cover) to which the conduit is to be installed as shown on the plan. The walls of the excavation shall be clean and true.

Prior to excavating trenches, expose the existing manhole and conduit lines. The object of this is to permit adjustments in line and grade to avoid special construction methods. Protect the exposed manhole and conduit from damage.

Lay the conduit at a depth so that sufficient protection from damage is provided. Allowable covers shall be as follows:

The standard cover for mainline conduit is 39 inches and the minimum cover acceptable is 28 inches.

Maintain the standard cover wherever possible and any deviation less than the minimum cover requires the approval of the engineer.

Grade the trench to have a minimum pitch of 3 inches per 100 feet. When an obstruction is encountered in the trench and it is necessary to excavate a deeper trench than would otherwise be required, in order to obtain drainage, refer the matter to the engineer to determine whether the extra excavation should be made.

In grading a trench for mainline conduit, there are three general practices for direction of pitch.

(a) When grading a trench in a street with a level grade, the high point of the trench bottom should ordinarily be centered between manholes and pitched downward equally toward each manhole.

(b) Where the street slopes in one direction, locate the high point of the trench bottom approximately 30 feet from the end wall of the higher manhole and grade toward both manholes.

(c) Where a steep grade is encountered, grade the trench at the minimum pitch from the end wall of the higher manhole to a point 20 feet plus or minus toward the lower manhole. From this point, follow the street grade at the standard cover to a point 20 feet plus or minimum away from the end wall of the lower manhole. From this point, the remainder of the section shall be laid at the normal pitch.

After the rough excavation is completed, prepare the bottom of the trench to receive the conduit. Bring the duct bed to the final grade by grading uniformly from the high point to the low or drainage points. Use stone chips or crushed stone screenings to grade the trench. The duct bed shall be a minimum of 2” in depth.

C.2 Placing of Duct

Proceed with placing the ducts as soon as the duct bed has been completed. Inspect all ducts before placing to see that the bores are clean and free from mud, sand, etc. Use only ducts with a smooth bore, free from burrs, rough projections etc. Smooth off burrs or other rough areas likely to damage cable are found in the duct by rasping or scraping.

Place the duct on base spacers with the ends staggered so no two couplings are adjacent. This may be accomplished by the use of the short lengths in stock or cutting back full length sections to the desired lengths. If cut pieces are used, place the cut end at the manhole. Locate the base spacers within 2 feet of the end of each duct and one base spacer located in the middle of the duct.

Use full length pieces for the balance of the conduit line.

Formations of two ducts or more in height are to be carried forward in full formation, that is, as each tier of 20 foot lengths is laid, the next higher tier of ducts shall then be placed on the intermediate spacers. Place these intermediate spacers on top of the base spacers located within two feet from each duct end and one in the middle of each duct. Place the intermediate spacers and ducts for the remaining tiers. Glue each length into the adjoining coupling. A twist and push on the duct being placed will suffice for a water tight joint. Exercise caution in the driving operation, so that neither the coupling nor the duct will be split or damaged in any way. After the full formation has been completed, place wood trench and duct bracing on the ducts to prevent shifting or floating while the concrete envelope is being placed and during driving operation.

This procedure shall be followed with succeeding lengths, providing spacers at the proper intervals, until sufficient trench footage of completed formation has been placed and is ready to receive concrete encasement.

The terminating point for mainline conduit will be the inside manhole wall. Install a standard end bell fitting flush with the wall on all duct access points.

Install a #10 copper tracer wire along and above the centerline of the duct for encasement in the concrete. The wire shall be 4 feet longer than the run of conduit and be at least 2 feet long at each access point.

Install a pull rope in each run of conduit, as laid. The rope shall be 4 feet longer than the run of conduit and shall be doubled back at least 2 feet at each raceway access point. Anchor the pull rope at each access point in a manner acceptable to the engineer.

C.3 Concreting

Begin concreting after sufficient conduit has been laid and the trench and duct have been inspected. The minimum concrete encasement of the ducts is 3 inches on the top, 2 inches on the sides, and 3 inches on the bottom. After placing, puddle the concrete with a splicing bar or similar tool so that complete duct encasement is accomplished. Remove wood braces used to keep the conduit from floating before the concrete sets completely and the resultant encasement voids filled with concrete.

Allow the concrete encasement to set for a minimum of 6 hours before backfilling is commenced.

C.4 Slurry Backfill

Slurry Backfill. Commence backfilling of the conduit immediately after the duct has been inspected, approved and has set to withstand the load.

An aggregate slurry as specified shall be used to backfill the concrete encased conduit. The trench shall be backfilled to the proposed or existing subgrade. The mix shall be deposited in the trench directly from a concrete transit mix truck.

D Measurement

The department will measure 2-Duct Cement Encased, 4-Inch Rigid Non-Metallic Conduit DB-60, furnished and installed at the locations on the plans, will be measured by the linear foot, acceptably installed. The measured quantity will equal the linear feet of encased duct, based on the distance along the centerline of duct between ends of conduit. City of Milwaukee shall have final acceptance by the LF 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.0090.402.	2-Duct Conduit Cement Encased 4-Inch Rigid Nonmetallic Conduit DB-60	LF

Payment is full compensation for furnishing the conduit, conduit bodies, conduit fittings, conduit spacers, end caps and trace wire; for excavating, bedding, encasement and backfilling including any concrete, stone, aggregate slurry, bracing, or other related materials; for disposing of surplus materials; and for making inspections, and for installing the conduit.

103. Marking Line Epoxy 6-Inch, SPV.0090.702

A Description

This special provision describes furnishing and installing Marking Line Epoxy 6-Inch as directed by the engineer, as shown on the drawings and as hereinafter provided.

Perform work under these items according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor's expense.

D Measurement

The department will measure Marking Line Epoxy 6-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.702	Marking Line Epoxy 6-Inch	LF

Payment is full compensation for preparing the surface, furnishing, and installing all materials and incidentals necessary to complete the work.

104. Marking Crosswalk Epoxy Transverse Line 12-Inch, SPV.0090.704.

A Description

This special provision describes furnishing and installing Marking Crosswalk Epoxy Transverse Line 12-Inch as directed by the engineer, as shown on the drawings and as hereinafter provided.

Perform work under these items according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor's expense.

D Measurement

The department will measure Marking Crosswalk Epoxy Transverse Line 12-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.704	Marking Crosswalk Epoxy Transverse Line 12-Inch	LF

Payment is full compensation for preparing the surface, furnishing, and installing all materials and incidentals necessary to complete the work.

105. Marking Crosswalk Epoxy Block Style 12-Inch, SPV.0090.705.

A Description

This special provision describes furnishing and installing Marking Crosswalk Epoxy Block Style 12-inch as directed by the engineer, as shown on the drawings and as hereinafter provided.

Perform work under these items according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor's expense.

D Measurement

The department will measure Marking Crosswalk Epoxy Block Style 12-inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.705	Marking Crosswalk Epoxy Block Style 12-inche	LF

Payment is full compensation for preparing the surface, furnishing, and installing all materials and incidentals necessary to complete the work.

106. Marking Stop Line Epoxy 24-Inch, SPV.0090.706.

A Description

This special provision describes furnishing and installing Marking Stop Line Epoxy 24-Inch as directed by the engineer, as shown on the drawings and as hereinafter provided.

Perform work under these items according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and the engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor's expense.

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 the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.706	Marking Stop Line Epoxy 24-Inch	LF

Payment is full compensation for preparing the surface, furnishing, and installing all materials and incidentals necessary to complete the work.

107. Management of Solid Waste, Item SPV.0195.001.

A General

A.1 Description

This work will conform with the requirements of Section 205 of the Standard specifications; to pertinent parts of the Wisconsin Administrative Code; Chapters NR 700-736 This work will conform with the requirements of Section 205 of the Standard Specifications; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736 Environmental Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-538, Solid Waste; and as shown on the plans and as supplemented herein.

Soil considered to be solid waste due to Chlorinated Volatile Organic Compounds (CVOCs) will be encountered within the construction limits. The solid waste may contain NR 500 non-exempt industrial wastes including soil mixed with foundry sand. Impacted waste material excavated during construction which cannot in the opinion of the environmental consultant be managed as common excavation or as petroleum-contaminated soil will be managed as solid waste.

This work consists of excavating, segregating, temporary stockpiling, loading, hauling, and disposing of solid waste material at a WDNR-approved disposal facility. The nearest WDNR-approved disposal facilities are:

Waste Management Orchard Ridge Landfill
W124 N9355 Boundary Road
Menomonee Falls, WI 53051
(866) 909-4458

Green For Life (GFL) Environmental Emerald Park Landfill
W124 S10629 S. 124th St.
Muskego, WI 53150
(414) 529-1360

Provide information to the environmental consultant and engineer that indicates the WDNR-approved disposal facility that the contractor will use.

A.2 Notice to the Contractor – Solid Waste Locations

The department and others completed hazardous materials assessment for locations within this project where excavation is required. Investigation for soil contamination was conducted at select locations. Results indicate that solid waste (soil contaminated with CVOCs) is present at the following location as shown on the plans:

- Station 20+15 to 20+35, from 75 feet to 120 feet right of reference line, from approximately 6 to 14+ feet bgs. The estimated volume of contaminated soil to be excavated at this location is 3.6 CY (approximately 6.12 tons using a conversion factor of 1.7 tons per cubic yard).

Directly load solid waste soil excavated by the project at the above locations into trucks that will transport the material to a WDNR-licensed landfill facility for landfill disposal.

If obviously contaminated soils or signs of NR 500 non-exempt solid waste and hazardous materials are unexpectedly encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Examples of these unexpected conditions may include, but are not limited to, buried containers or tanks, noxious odors and fumes, stained soils, sheen on ground water, other industrial wastes, and significant volumes of municipal or domestic garbage.

If dewatering is required at the above locations, conduct the dewatering according to Section C below.

If active groundwater monitoring wells are encountered during construction, notify the engineer and protect the wells to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For wells that do not need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

A.3 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated waste. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, Waukesha, WI 53187-0798
Phone:	(262) 548-6705
E-mail:	andrew.malsom@dot.state.wi.us

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	6737 W. Washington St., Suite 2100, West Allis, WI 53214
Contact:	Bryan Bergmann
Phone:	(262) 901-2126 office, (262) 227-9210 cell
E-mail:	bbergmann@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of solid waste to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying soils to be hauled to the landfill facility;
3. Documenting that activities associated with management of solid waste are in conformance with the solid waste management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of solid waste from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the area of solid waste fill described in A.2 to the environmental consultant. Identify the WDNR licensed landfill facility that will be used for disposal of solid waste and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation in the impacted area or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of the solid waste.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation in the impacted areas. Notify the environmental consultant at least three calendar days prior to commencement of excavation in the impacted areas. Perform excavation in the impacted areas on a continuous basis until excavation work is completed. Do not transport soil containing solid waste offsite without prior approval from the environmental consultant.

A.5 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter historic fill contaminated with industrial waste (foundry sand) and associated regulated metals and organic compounds. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each impacted area as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

Control operations in the impacted areas to minimize the quantity of soil excavated.

The environmental consultant will periodically monitor soil excavated from the areas identified in A.2 above. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul solid waste soil designated by the environmental consultant for offsite disposal to the WDNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of the material. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

Verify that the vehicles used to transport material are licensed for such activity according to applicable state and federal regulations. Obtain the necessary disposal facility approvals and WDNR approvals for disposal. Do not transport regulated solid waste off-site without obtaining the approval of the environmental consultant and engineer and notifying the disposal facility.

During excavations in the areas of known contamination, larger pieces of clean concrete (~2 cubic feet), asphalt and bricks shall be segregated from the fill to the extent practical and managed as common excavation. Under NR 500.08 this material is exempt from licensing and requirements of Wisconsin Administrative Code NR 500-538 of the solid waste regulations and will be reused as designated by the engineer as fill on the project, or it will be disposed of off-site at the contractor's disposal site(s).

If dewatering is required in areas of known contamination, water generated from dewatering activities may contain chlorinated solvents, petroleum compounds and/or metals. Such water may require analytical testing, and with approval from the City of Milwaukee and the Milwaukee Metropolitan Sewerage District (MMSD) be discharged to the sanitary sewer as follows:

1. Meet all applicable requirements of the City of Milwaukee and MMSD including the control of suspended solids. Perform all necessary monitoring to document compliance with the City of Milwaukee and MMSD requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with the City of Milwaukee and MMSD requirements.
2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

Groundwater with a petroleum sheen cannot be discharged to the sanitary sewer per MMSD guidelines. If dewatering is necessary where the groundwater has a sheen on the surface, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

Notify the engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure Management of Solid Waste by the ton of waste accepted by the disposal facility and as documented by weight tickets.

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	Management of Solid Waste	TON

Payment is full compensation for excavating, segregating, loading, hauling, and landfill disposal of solid waste; obtaining solid waste collection and transportation service operating licenses; assisting in the collection of soil samples for field evaluation; dewatering of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __17__ *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

   Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __6__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

II. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

<u>NOTE</u>: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

III. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. TRANS TRAINING

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups,

disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal

Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.

(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

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 Expediters, Packagers, Manufacturers' Representatives

(1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit. However, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies, or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions.

(2) Brokerage fees 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.

<u>Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released weeks prior to each Let)</u>

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?

<u>Following Bid Opening- this discussion can happen at any time</u>

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). 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. *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)*		
Selected Work Items Documentation	All work items are broken out into economically feasible units to facilitate DBE participation. *Such as: Selected work items are specific to each proposal and clearly identified in all solicitation(s)*		
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. *Such as: Project information is clearly identified in all solicitation(s)*		
Documentation of Negotiation with Interested DBEs	Provide sufficient evidence demonstrating that good faith negotiations took place during the bid letting. *Such as: Documented attempts with DBEs or on behalf of DBEs to increase DBE participation*		
Documentation of Sound Reason for Rejecting DBEs	Provide sufficient evidence demonstrating that DBEs are rejected for sound reasons. *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.*		
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. *Such as: Variety of activities that translate into meaningful DBE participation*		
Documentation of other GFE activities	*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*		
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) Conducing 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

Official Form DT1506 can be found here: https://wisconsindot.gov/Documents/formdocs/dt1506.pdf

Clear

Wisconsin Department of Transportation

COMMITMENT TO SUBCONTRACT TO DBE

DT1506 12/2021 s.84.06(2) Wis. Stats.

☐ Non-Traditional Project

Project ID: ____________________

Proposal # ____________________

Prime Contractor: ____________________

County: ____________________

Letting Date: ____________________

Total $ Value of Prime Contract: $ ____________________

DBE Contract Goal: ______ %

DBE Goal Achieved: 0.00 %

This contract requires that a specified percentage of the work be subcontracted to a disadvantaged business enterprise and that this information be submitted as described in ASP-3. The submittal of this form with the bid proposal constitutes your DBE commitment. Include Attachment A for DBEs included on commitment.

This form must be completed and returned for this proposal. See page 2 for instructions.

1. DBE Firm	2. Work or Items to be subcontracted	3. Supplier Y/N	4. Trucking Only	5. DBE Full Subcontract $	6. DBE Amount for Credit $
			O# L#		
			O# L#		
			O# L#		
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			O# L#		
				$ 0.00	$ 0.00

Government Use Only Approved Amounts		
A =	$	%
V =	$	%
Total =	$	%

Signature:

Date:

Good faith effort approved: Yes ☐ No ☐

____

Prime Representative Signature & Date

____

DBE Office Signature & Date Approved

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: *(list all names of tiers if more than one)*	
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.	Participating DBE Firm Representative's Signature	Date
	Participating DBE Firm Representative's Name (Print Name)	
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 (Print Company Name)	
	DBE Firm's Address:	

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks

☐ Off site Hauling

Official Form DT1506 can be found here: https://wisconsindot.gov/Documents/formdocs/dt1506.pdf

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 Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

416.2.4 Concrete Pavement Repair and Replacement

Replace the entire text with the following effective with the November 2022 letting:

(1) Except as specified in 416.3.6 for inlaid rumble strips, use grade C concrete as specified in 501.

(2) The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi.

416.2.5 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.5.1 Composition and Proportioning of Concrete

Replace paragraph one with the following effective with the November 2022 letting:

(1) For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

455.2.4.3 Emulsified Asphalts

Replace paragraph one with the following effective with the November 2022 letting:

(1) Furnish material conforming, before dilution, to the following:

Anionic emulsified asphalts[1] ..... AASHTO M140
Cationic emulsified asphalts[1] ..... AASHTO M208
Polymer-modified cationic emulsified asphalts ..... AASHTO M316

[1] Non-tracking emulsified asphalts shall conform to TABLE 455-1 for the type and grade specified.

TABLE 455-1 Requirements for Non-Tracking Emulsified Asphalt

PRODUCT	ANTT	CNTT
Saybolt Viscosity at 77°F (25°C), (AASHTO T 59), SFS	15-100	15-100
Paddle Viscosity at 77°F (25°C), (AASHTO T 382), cPs[1]	30-200	30-200
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max	1 max
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min	50 min
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3	0.3
Penetration at 77°F (25°C), 100 g, 5 sec, (AASHTO T 49), dmm	10-40	10-40
Ash Content, (AASHTO T 111), %	1 max	1 max
Solubility in Trichlorethylene Test, (AASHTO T 44)[2]	97.5% min	97.5% min

[1] Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).

[2] The solubility in Trichlorethylene test (AASHTO T 44) may be run in lieu of Ash Content (AASHTO T 111).

455.2.5 Tack Coat

Replace paragraph one with the following effective with the November 2022 letting:

(1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, ANTT, CNTT, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace paragraph one with the following effective with the November 2022 letting:

(1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, notify the other party immediately and do one of the following:

- Perform corrective action documented in the QC plan or as the engineer approves. Continue with the following:
  1. Document and provide corrective action results to the engineer as soon as they are available.
  2. Department will conduct two tests within the next business day after corrective action is complete.

     If blended aggregate gradations are within the tarantula curve limits by the second department test:

     - Continue with concrete production.
     - Include a break in the 4-point running average.
     - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.

  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract requires an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit a new optimized aggregate gradation mix design.
  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract does not require an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit either a new optimized aggregate gradation mix design or a combined aggregate gradation mix design.
- Submit a new optimized aggregate gradation mix design and perform the following:
  1. Restart control charts for the new mix design.
  2. Amend contractor Quality Control Plan

715.5 Payment

Replace the entire text with the following effective with the November 2022 letting:

715.5.1 General

(1) The department will pay incentive for concrete strength under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:

- Compressive strength of 3700 psi for pavements.
- Flexural strength of 650 psi for pavements.
- Compressive strength of 4000 psi for structures and barrier.

(5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.

(6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.

(7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

715.5.2 Pavements

715.5.2.1 Compressive

(1) The department will adjust pay for each lot using equation “QMP 3.01” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.1 x PWL) – 9.5
>= 85 to < 95	0
>= 30 to < 85	(1.5/55 x PWL) – 127.5/55
< 30	-1.50

(2) The department will not pay incentive if the lot standard deviation is greater than 400 psi compressive.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 3700 psi compressive by $1.50 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.2.2 Flexural

(1) The department will adjust pay for each lot using equation “QMP 6.02” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.2 x PWL) – 19
>= 85 to < 95	0
>= 50 to < 85	(2.0/35 x PWL) – 170/35
< 50	-2.00

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi flexural.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 650 psi flexural by $2.00 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.3 Structures and Cast-in-Place Barrier

(1) The department will adjust pay for each lot using equation “QMP 2.01” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 99 to 100	10
>= 90 to < 99	0
>= 50 to < 90	(7/8 x PWL) – 78.75
< 50	-35

(2) The department will not pay incentive if the lot standard deviation is greater than 350 psi.

(3) For lots with less than 4 sublots, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by $35 per cubic yard.

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) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

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. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 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 journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract 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 (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 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. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum 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. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) 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. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

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 200.326.

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 200.326.

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 contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) 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;

(b) 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

(c) 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)

2. 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:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

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 M-22-11 from the Office of Management and Budget: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf) 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 smelting forward in the manufacturing process) must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America.

   The exemption of 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 OMB M-22-11 and as referenced in CMM 228.5) must comply with Buy America. No exemptions (0.0%) are allowed.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all 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 exemptions and their associated costs to the certification form.

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. Itis the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

II. COVERAGE OF TRUCK DRIVERS

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. https://www.dol.gov/whd/FOH/FOH_Ch15.pdf
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work."
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:

https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. RESOURCES

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20230010 01/20/2023

Superseded General Decision Number: WI20220010

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)(2)-(60).

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 $16.20 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 2023.
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 $12.15 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 2023.

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.

Modification Number	Publication Date
0	01/06/2023

1 01/13/2023
2 01/20/2023

BRWI0001-002 06/01/2022

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.96	25.13

BRWI0002-002 06/01/2022

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 45.87	23.91

BRWI0002-005 06/01/2022

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	$ 38.81	23.94

BRWI0003-002 06/01/2021

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.03	24.95

BRWI0004-002 06/01/2022

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.53	26.01

BRWI0006-002 06/01/2022

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.26	24.83

BRWI0007-002 06/01/2022

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.26	25.52

BRWI0008-002 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 44.08	24.42

BRWI0011-002 06/01/2022

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.00	25.09

BRWI0019-002 06/01/2022

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.36	25.73

BRWI0034-002 06/01/2022

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.56	25.22

CARP0068-011 05/02/2022

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 41.19	27.05

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0310-002 06/05/2022

Ashland, Bayfield, Forest, Iron, Langlade, Lincoln, Marathon, Oneida, Shawano, Taylor and Vilas

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0314-001 06/05/2022

Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk and Walworth

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP0731-002 06/05/2022

Calumet (Eastern portion of the County), Fond Du Lac, Manitowoc and Sheboygan

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0804-001 06/05/2022

Adams, Juneau, Portage and Wood

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0955-002 06/01/2022

Calumet (western portion of County), Fond Du Lac, Green Lake, Marquette, Outagamie and Winnebago

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1056-002 06/05/2022

	Rates	Fringes
MILLWRIGHT	$ 38.00	26.78

CARP1074-002 06/01/2022

Barron, Burnett, Chippewa, Clark, Dunn, Eau Claire, Pepin, Pierce, Polk, Rusk, Sawyer, St. Croix and Washburn

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1143-002 06/01/2022

Crawford, Jackson, La Crosse, Monroe, Trempealeau and Vernon

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1146-002 06/01/2022

Brown, Door, Florence, Kewaunee, Marinette, Menominee and Shawano

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

* ELEC0014-002 12/25/2022

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 39.25	22.34

* ELEC0014-007 05/29/2022

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 29.63	3%+16.18

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 06/01/2021

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 43.16	30%+12.70

ELEC0158-002 05/30/2021

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 36.14	29.75%+10.26

ELEC0159-003 05/30/2021

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	$ 43.38	23.13

ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 33.94	21.80
Electrical contracts under $180,000	$ 31.75	21.73

ELEC0242-005 05/30/2021

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 41.37	69.25%

ELEC0388-002 05/30/2021

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:	$ 36.22	26%+11.24

ELEC0430-002 06/01/2022

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 45.02	24.35

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* ELEC0494-005 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 46.38	25.86

ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 37.91	22.74

ELEC0494-013 06/01/2021

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer:	$ 22.39	18.80
Technician:	$ 32.49	20.26

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but

does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2021

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:	$ 35.66	29.50%+10.00

ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 39.00	25.95%+11.17

ELEC0953-001 06/02/2019

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 47.53	21.43
(2) Heavy Equipment Operator	$ 42.78	19.80
(3) Equipment Operator	$ 38.02	18.40
(4) Heavy Groundman Driver	$ 33.27	16.88
(5) Light Groundman Driver	$ 30.89	16.11
(6) Groundsman	$ 26.14	14.60

ENGI0139-005 06/01/2022

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 43.27	25.95
Group 2	$ 42.77	25.95
Group 3	$ 42.27	25.95
Group 4	$ 42.01	25.95
Group 5	$ 41.72	25.95
Group 6	$ 35.82	25.95

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" protection - $3.00 per hour
EPA Level ""B"" protection - $2.00 per hour
EPA Level ""C"" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or

cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender, day light machine

GROUP 6: Off-road material hauler with or without ejector.

IRON0008-002 06/13/2022

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes

IRONWORKER.....$ 41.00 28.95

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/05/2022

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	$ 39.00	28.58

IRON0498-005 06/01/2021

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.37	44.41

IRON0512-008 05/01/2022

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 41.00	33.11

IRON0512-021 05/01/2022

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.94	33.11

LABO0113-002 06/01/2022

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 32.65	23.09
Group 2	$ 32.80	23.09
Group 3	$ 33.00	23.09
Group 4	$ 33.15	23.09
Group 5	$ 33.30	23.09
Group 6	$ 29.14	23.09

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2022

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.90	23.09
Group 2	$ 32.00	23.09
Group 3	$ 32.05	23.09
Group 4	$ 32.25	23.09
Group 5	$ 32.10	23.09
Group 6	$ 28.99	23.09

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand

Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2022

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.71	23.09
Group 2	$ 31.86	23.09
Group 3	$ 32.06	23.09
Group 4	$ 32.03	23.09
Group 5	$ 32.36	23.09
Group 6	$ 28.85	23.09

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2022

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 36.42	18.68
Group 2	$ 36.52	18.68
Group 3	$ 36.57	18.68
Group 4	$ 36.77	18.68
Group 5	$ 36.62	18.68
Group 6	$ 33.05	18.68

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2022

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 36.70	18.68
Group 2	$ 36.80	18.68
Group 3	$ 36.85	18.68
Group 4	$ 37.05	18.68
Group 5	$ 36.90	18.68
Group 6	$ 33.05	18.68

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter

(Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2022

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 33.99	22.70
Spray, Sandblast, Steel	$ 34.59	22.70
Repaint:		
Brush, Roller	$ 33.09	22.70
Spray, Sandblast, Steel	$ 32.49	22.70

PAIN0108-002 06/01/2022

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 39.60	21.79
Spray & Sandblast	$ 40.60	21.79

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2022

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 38.15	24.80
Brush	$ 37.40	24.80
Spray & Sandblast	$ 38.15	24.80

PAIN0802-002 06/01/2021

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 29.98	18.78

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2022

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	$ 34.68	18.94

PAIN0934-001 06/01/2022

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 36.70	24.69
Spray	$ 37.70	24.69
Structural Steel	$ 36.85	24.69

PAIN1011-002 06/06/2021

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 26.71	14.38

PLAS0599-010 06/01/2021

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 42.06	20.87
Area 2 (BAC)	$ 37.73	23.80
Area 3	$ 38.74	22.46
Area 4	$ 38.59	22.66
Area 5	$ 38.16	22.98
Area 6	$ 34.94	26.36

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET,

CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic	$ 32.72	23.81
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at 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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current

negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

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 ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

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	204.0100 Removing Concrete Pavement	10,489.000 SY	_____.____	_____.____
0004	204.0105 Removing Concrete Pavement Butt Joints	2,091.000 SY	_____.____	_____.____
0006	204.0110 Removing Asphaltic Surface	467.000 SY	_____.____	_____.____
0008	204.0120 Removing Asphaltic Surface Milling	73,667.000 SY	_____.____	_____.____
0010	204.0150 Removing Curb & Gutter	8,804.000 LF	_____.____	_____.____
0012	204.0155 Removing Concrete Sidewalk	7,273.000 SY	_____.____	_____.____
0014	204.0195 Removing Concrete Bases	72.000 EACH	_____.____	_____.____
0016	204.0210 Removing Manholes	1.000 EACH	_____.____	_____.____
0018	204.0220 Removing Inlets	18.000 EACH	_____.____	_____.____
0020	204.0245 Removing Storm Sewer (size) 001. 8-Inch	107.000 LF	_____.____	_____.____
0022	204.0245 Removing Storm Sewer (size) 002. 12-Inch	59.000 LF	_____.____	_____.____
0024	204.0260 Abandoning Inlets	4.000 EACH	_____.____	_____.____
0026	204.9060.S Removing (item description) 001. Trees	9.000 EACH	_____.____	_____.____
0028	205.0100 Excavation Common	8,945.000 CY	_____.____	_____.____
0030	211.0101 Prepare Foundation for Asphaltic Paving (project) 001. 2545-09-71	1.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	211.0201 Prepare Foundation for Concrete Pavement (project) 001. 2984-13-74	1.000 EACH	_____.____	_____.____
0034	213.0100 Finishing Roadway (project) 001. 2545-03-72	1.000 EACH	_____.____	_____.____
0036	213.0100 Finishing Roadway (project) 002. 2545-09-71	1.000 EACH	_____.____	_____.____
0038	213.0100 Finishing Roadway (project) 003. 2984-13-74	1.000 EACH	_____.____	_____.____
0040	305.0110 Base Aggregate Dense 3/4-Inch	1,379.000 TON	_____.____	_____.____
0042	305.0120 Base Aggregate Dense 1 1/4-Inch	2,223.000 TON	_____.____	_____.____
0044	320.0145 Concrete Base 8-Inch	12.000 SY	_____.____	_____.____
0046	320.0155 Concrete Base 9-Inch	945.000 SY	_____.____	_____.____
0048	390.0103 Base Patching	261.000 SY	_____.____	_____.____
0050	390.0303 Base Patching Concrete	762.000 SY	_____.____	_____.____
0052	415.0080 Concrete Pavement 8-Inch	23.000 SY	_____.____	_____.____
0054	415.0090 Concrete Pavement 9-Inch	2,502.000 SY	_____.____	_____.____
0056	416.0170 Concrete Driveway 7-Inch	933.000 SY	_____.____	_____.____
0058	416.0610 Drilled Tie Bars	2,376.000 EACH	_____.____	_____.____
0060	416.0620 Drilled Dowel Bars	15,061.000 EACH	_____.____	_____.____
0062	416.1710 Concrete Pavement Repair	4,659.000 SY	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	455.0605 Tack Coat	10,356.000 GAL	_____.____	_____.____
0066	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.____	_____.____
0068	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	4.000 EACH	_____.____	_____.____
0070	460.2005 Incentive Density PWL HMA Pavement	17,000.000 DOL	1.00000	17,000.00
0072	460.2007 Incentive Density HMA Pavement Longitudinal Joints	10,900.000 DOL	1.00000	10,900.00
0074	460.2010 Incentive Air Voids HMA Pavement	12,400.000 DOL	1.00000	12,400.00
0076	460.6224 HMA Pavement 4 MT 58-28 S	17,000.000 TON	_____.____	_____.____
0078	465.0105 Asphaltic Surface	412.000 TON	_____.____	_____.____
0080	465.0110 Asphaltic Surface Patching	25.000 TON	_____.____	_____.____
0082	601.0319 Concrete Curb & Gutter 19-Inch	222.000 LF	.	.
0084	601.0322 Concrete Curb & Gutter 22-Inch	4,132.000 LF	_____.____	_____.____
0086	601.0331 Concrete Curb & Gutter 31-Inch	7,919.000 LF	_____.____	_____.____
0088	601.0600 Concrete Curb Pedestrian	1,994.000 LF	_____.____	_____.____
0090	602.0410 Concrete Sidewalk 5-Inch	50,315.000 SF	_____.____	_____.____
0092	602.0420 Concrete Sidewalk 7-Inch	6,457.000 SF	_____.____	_____.____
0094	602.0515 Curb Ramp Detectable Warning Field Natural Patina	2,640.000 SF	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0096	602.1000 Concrete Loading Zone	1,362.000 SF	_____.____	_____.____
0098	608.0115 Relaid Storm Sewer 15-Inch	10.000 LF	_____.____	_____.____
0100	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	158.000 LF	_____.____	_____.____
0102	608.0512 Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	64.000 LF	_____.____	_____.____
0104	608.6008 Storm Sewer Pipe Composite 8-Inch	198.000 LF	_____.____	_____.____
0106	611.1003 Catch Basins 3-FT Diameter	14.000 EACH	_____.____	_____.____
0108	611.2004 Manholes 4-FT Diameter	5.000 EACH	_____.____	_____.____
0110	611.3003 Inlets 3-FT Diameter	5.000 EACH	_____.____	_____.____
0112	611.3225 Inlets 2x2.5-FT	1.000 EACH	_____.____	_____.____
0114	611.8110 Adjusting Manhole Covers	296.000 EACH	_____.____	_____.____
0116	611.8115 Adjusting Inlet Covers	50.000 EACH	_____.____	_____.____
0118	611.8120.S Cover Plates Temporary	299.000 EACH	_____.____	_____.____
0120	618.0100 Maintenance And Repair of Haul Roads (project) 001. 2545-09-71	1.000 EACH	_____.____	_____.____
0122	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0124	620.0300 Concrete Median Sloped Nose	63.000 SF	_____.____	_____.____
0126	625.0100 Topsoil	1,495.000 SY	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

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	628.1905 Mobilizations Erosion Control	2.000 EACH	_____.____	_____.____
0130	628.1910 Mobilizations Emergency Erosion Control	2.000 EACH	_____.____	_____.____
0132	628.7005 Inlet Protection Type A	32.000 EACH	_____.____	_____.____
0134	628.7010 Inlet Protection Type B	185.000 EACH	_____.____	_____.____
0136	628.7015 Inlet Protection Type C	19.000 EACH	_____.____	_____.____
0138	629.0205 Fertilizer Type A	1.300 CWT	_____.____	_____.____
0140	629.0210 Fertilizer Type B	5.300 CWT	_____.____	_____.____
0142	631.0300 Sod Water	28.500 MGAL	_____.____	_____.____
0144	631.1000 Sod Lawn	1,910.920 SY	_____.____	_____.____
0146	632.0101 Trees (species) (size) (root) 001. Frontier Elm (4" Cal.) (39" Ball/Pot)	3.000 EACH	_____.____	_____.____
0148	632.0101 Trees (species) (size) (root) 002. Autumn Blaze Maple(4" cal.) (39" Ball/Pot)	2.000 EACH	_____.____	_____.____
0150	632.0101 Trees (species) (size) (root) 003. Ivory Silk Tree Lilac (3" Cal.) (24" Ball/Pot)	2.000 EACH	_____.____	_____.____
0152	632.0101 Trees (species) (size) (root) 004. Tulip Tree (3" Cal.) (24" Ball/Pot)	1.000 EACH	_____.____	_____.____
0154	632.0101 Trees (species) (size) (root) 005. Ruby Red Horse Chestnut (3" Cal.) (24" Ball/Pot)	1.000 EACH	_____.____	_____.____
0156	632.9101 Landscape Planting Surveillance and Care Cycles	9.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

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	637.2210 Signs Type II Reflective H	340.000 SF	_____.____	_____.____
0160	637.2220 Signs Type II Reflective SH	113.000 SF	_____.____	_____.____
0162	637.2230 Signs Type II Reflective F	236.000 SF	_____.____	_____.____
0164	638.2102 Moving Signs Type II	6.000 EACH	_____.____	_____.____
0166	638.2602 Removing Signs Type II	24.000 EACH	_____.____	_____.____
0168	638.3000 Removing Small Sign Supports	18.000 EACH	_____.____	_____.____
0170	638.4000 Moving Small Sign Supports	1.000 EACH	_____.____	_____.____
0172	643.0300 Traffic Control Drums	31,176.000 DAY	_____.____	_____.____
0174	643.0410 Traffic Control Barricades Type II	5,800.000 DAY	_____.____	_____.____
0176	643.0420 Traffic Control Barricades Type III	8,738.000 DAY	_____.____	_____.____
0178	643.0500 Traffic Control Flexible Tubular Marker Posts	1,799.000 EACH	_____.____	_____.____
0180	643.0600 Traffic Control Flexible Tubular Marker Bases	1,799.000 EACH	_____.____	_____.____
0182	643.0705 Traffic Control Warning Lights Type A	17,476.000 DAY	_____.____	_____.____
0184	643.0715 Traffic Control Warning Lights Type C	11,235.000 DAY	_____.____	_____.____
0186	643.0800 Traffic Control Arrow Boards	519.000 DAY	_____.____	_____.____
0188	643.0900 Traffic Control Signs	13,208.000 DAY	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0190	643.1050 Traffic Control Signs PCMS	40.000 DAY	_____.____	_____.____
0192	643.1070 Traffic Control Cones 42-Inch	7,590.000 DAY	_____.____	_____.____
0194	643.3150 Temporary Marking Line Removable Tape 4-Inch	55,260.000 LF	_____.____	_____.____
0196	643.3250 Temporary Marking Line Removable Tape 8-Inch	3,215.000 LF	_____.____	_____.____
0198	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0200	644.1410 Temporary Pedestrian Surface Asphalt	3,310.000 SF	_____.____	_____.____
0202	644.1430 Temporary Pedestrian Surface Plate	3,310.000 SF	_____.____	_____.____
0204	644.1440 Temporary Pedestrian Surface Matting	3,560.000 SF	_____.____	_____.____
0206	644.1601 Temporary Pedestrian Curb Ramp	300.000 DAY	_____.____	_____.____
0208	644.1605 Temporary Pedestrian Detectable Warning Field	100.000 SF	_____.____	_____.____
0210	644.1810 Temporary Pedestrian Barricade	1,140.000 LF	_____.____	_____.____
0212	646.1020 Marking Line Epoxy 4-Inch	9,653.000 LF	_____.____	_____.____
0214	646.3020 Marking Line Epoxy 8-Inch	1,920.000 LF	_____.____	_____.____
0216	646.5020 Marking Arrow Epoxy	22.000 EACH	_____.____	_____.____
0218	646.5120 Marking Word Epoxy	14.000 EACH	_____.____	_____.____
0220	646.5220 Marking Symbol Epoxy	8.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0222	646.8120 Marking Curb Epoxy	2,854.000 LF	_____.____	_____.____
0224	646.8220 Marking Island Nose Epoxy	63.000 EACH	_____.____	_____.____
0226	646.9000 Marking Removal Line 4-Inch	2,357.000 LF	_____.____	_____.____
0228	646.9200 Marking Removal Line Wide	1,090.000 LF	_____.____	_____.____
0230	650.4000 Construction Staking Storm Sewer	9.000 EACH	_____.____	_____.____
0232	650.5500 Construction Staking Curb Gutter and Curb & Gutter	2,175.000 LF	_____.____	_____.____
0234	650.8501 Construction Staking Electrical Installations (project) 001. 2545-03-72	1.000 EACH	_____.____	_____.____
0236	650.8501 Construction Staking Electrical Installations (project) 002. 2545-09-71	1.000 EACH	_____.____	_____.____
0238	650.8501 Construction Staking Electrical Installations (project) 003. 2984-13-74	1.000 EACH	_____.____	_____.____
0240	650.9000 Construction Staking Curb Ramps	26.000 EACH	_____.____	_____.____
0242	650.9500 Construction Staking Sidewalk (project) 001. 2545-03-72	1.000 EACH	_____.____	_____.____
0244	650.9500 Construction Staking Sidewalk (project) 003. 2984-13-74	1.000 EACH	_____.____	_____.____
0246	650.9911 Construction Staking Supplemental Control (project) 001. 2545-03-72	1.000 EACH	_____.____	_____.____
0248	650.9911 Construction Staking Supplemental Control (project) 003. 2984-13-74	1.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0250	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	420.000 LF	_____.____	_____.____
0252	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,790.000 LF	_____.____	_____.____
0254	652.0605 Conduit Special 2-Inch	95.000 LF	_____.____	_____.____
0256	652.0615 Conduit Special 3-Inch	6,070.000 LF	_____.____	_____.____
0258	654.0101 Concrete Bases Type 1	30.000 EACH	_____.____	_____.____
0260	654.0105 Concrete Bases Type 5	109.000 EACH	_____.____	_____.____
0262	654.0110 Concrete Bases Type 10	12.000 EACH	_____.____	_____.____
0264	654.0113 Concrete Bases Type 13	2.000 EACH	_____.____	_____.____
0266	654.0120 Concrete Bases Type 10-Special	8.000 EACH	_____.____	_____.____
0268	655.0230 Cable Traffic Signal 5-14 AWG	5,980.000 LF	_____.____	_____.____
0270	655.0250 Cable Traffic Signal 9-14 AWG	810.000 LF	_____.____	_____.____
0272	655.0260 Cable Traffic Signal 12-14 AWG	3,675.000 LF	_____.____	_____.____
0274	655.0270 Cable Traffic Signal 15-14 AWG	2,760.000 LF	_____.____	_____.____
0276	655.0280 Cable Traffic Signal 19-14 AWG	3,725.000 LF	_____.____	_____.____
0278	655.0290 Cable Traffic Signal 21-14 AWG	165.000 LF	_____.____	_____.____
0280	655.0305 Cable Type UF 2-12 AWG Grounded	14,625.000 LF	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0282	655.0515 Electrical Wire Traffic Signals 10 AWG	6,150.000 LF	_____.____	_____.____
0284	655.0900 Traffic Signal EVP Detector Cable	6,675.000 LF	_____.____	_____.____
0286	657.0100 Pedestal Bases	30.000 EACH	_____.____	_____.____
0288	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	109.000 EACH	_____.____	_____.____
0290	657.0350 Poles Type 10	12.000 EACH	_____.____	_____.____
0292	657.0352 Poles Type 10-Special	8.000 EACH	_____.____	_____.____
0294	657.0360 Poles Type 13	2.000 EACH	_____.____	_____.____
0296	657.0420 Traffic Signal Standards Aluminum 13-FT	19.000 EACH	_____.____	_____.____
0298	657.0425 Traffic Signal Standards Aluminum 15-FT	3.000 EACH	_____.____	_____.____
0300	657.0430 Traffic Signal Standards Aluminum 10-FT	8.000 EACH	_____.____	_____.____
0302	657.0525 Monotube Arms 25-FT	4.000 EACH	_____.____	_____.____
0304	657.0530 Monotube Arms 30-FT	8.000 EACH	_____.____	_____.____
0306	657.0536 Monotube Arms 35-FT-Special	5.000 EACH	_____.____	_____.____
0308	657.0541 Monotube Arms 40-FT-Special	2.000 EACH	_____.____	_____.____
0310	657.0546 Monotube Arms 45-FT-Special	1.000 EACH	_____.____	_____.____
0312	657.0555 Monotube Arms 55-FT	2.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0314	658.0173 Traffic Signal Face 3S 12-Inch	104.000 EACH	_____.____	_____.____
0316	658.0174 Traffic Signal Face 4S 12-Inch	9.000 EACH	_____.____	_____.____
0318	658.0412 Pedestrian Signal Face 12-Inch	65.000 EACH	_____.____	_____.____
0320	658.0500 Pedestrian Push Buttons	8.000 EACH	_____.____	_____.____
0322	658.1133 Programmable Traffic Signal Face 3S 12-Inch	7.000 EACH	_____.____	_____.____
0324	658.5070 Signal Mounting Hardware (location) 001. Hampton & 51st St	1.000 EACH	_____.____	_____.____
0326	658.5070 Signal Mounting Hardware (location) 002. Hampton & Sherman Blvd.	1.000 EACH	_____.____	_____.____
0328	658.5070 Signal Mounting Hardware (location) 003. Hampton & Hopkins	1.000 EACH	_____.____	_____.____
0330	658.5070 Signal Mounting Hardware (location) 004. Hampton & 37th St	1.000 EACH	_____.____	_____.____
0332	658.5070 Signal Mounting Hardware (location) 005. Hampton & 35th St	1.000 EACH	_____.____	_____.____
0334	658.5070 Signal Mounting Hardware (location) 006. Hampton & 32nd St	1.000 EACH	_____.____	_____.____
0336	658.5070 Signal Mounting Hardware (location) 007. N. 76th St. & Hampton	1.000 EACH	_____.____	_____.____
0338	658.5070 Signal Mounting Hardware (location) 008. W Center St	1.000 EACH	_____.____	_____.____
0340	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	180.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0342	661.0201 Temporary Traffic Signals for Intersections (location) 001. Hopkins	1.000 EACH	_____.____	_____.____
0344	661.0201 Temporary Traffic Signals for Intersections (location) 002. 37th	1.000 EACH	_____.____	_____.____
0346	661.0201 Temporary Traffic Signals for Intersections (location) 003. 35th	1.000 EACH	_____.____	_____.____
0348	661.0201 Temporary Traffic Signals for Intersections (location) 004. 32nd	1.000 EACH	_____.____	_____.____
0350	661.0201 Temporary Traffic Signals for Intersections (location) 007. 2545-03-72 76th & Hampton	1.000 EACH	_____.____	_____.____
0352	661.0201 Temporary Traffic Signals for Intersections (location) 008. Center, Lisbon, & 60th	1.000 EACH	_____.____	_____.____
0354	674.0300 Remove Cable	500.000 LF	_____.____	_____.____
0356	690.0150 Sawing Asphalt	1,200.000 LF	_____.____	_____.____
0358	690.0250 Sawing Concrete	30,083.000 LF	_____.____	_____.____
0360	715.0720 Incentive Compressive Strength Concrete Pavement	1,501.000 DOL	1.00000	1,501.00
0362	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	3,800.000 HRS	5.00000	19,000.00
0364	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	9,000.000 HRS	5.00000	45,000.00
0366	SPV.0060 Special 001. Connect Storm Sewer to Existing Structure	13.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0368	SPV.0060 Special 002. Expose Existing Utility	100.000 EACH	_____.____	_____.____
0370	SPV.0060 Special 003. Curb Ramp Grading, Shaping and Finishing	189.000 EACH	_____.____	_____.____
0372	SPV.0060 Special 004. Adjusting Water Valve Boxes	138.000 EACH	_____.____	_____.____
0374	SPV.0060 Special 005. Water Main Protection	20.000 EACH	_____.____	_____.____
0376	SPV.0060 Special 006. Field Facilities Office Space	1.000 EACH	_____.____	_____.____
0378	SPV.0060 Special 007. Section Corner Monuments	6.000 EACH	_____.____	_____.____
0380	SPV.0060 Special 008. Survey Project 2545-09-71	1.000 EACH	_____.____	_____.____
0382	SPV.0060 Special 010. Temporary No Parking Signs	218.000 EACH	_____.____	_____.____
0384	SPV.0060 Special 101. Inlet Cover Type MS 55	1.000 EACH	_____.____	_____.____
0386	SPV.0060 Special 102. Manhole Covers Type MS 57	23.000 EACH	_____.____	_____.____
0388	SPV.0060 Special 103. Manhole Covers Type MS-58A	10.000 EACH	_____.____	_____.____
0390	SPV.0060 Special 104. Internal Sanitary Manhole Seals	77.000 EACH	_____.____	_____.____
0392	SPV.0060 Special 112. Storm Inlet Type 45A	3.000 EACH	_____.____	_____.____
0394	SPV.0060 Special 201. Install Precast Control Cabinet Base	6.000 EACH	_____.____	_____.____
0396	SPV.0060 Special 205. ATC Controller and Cabinet Installed	6.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0398	SPV.0060 Special 212. Fiber Optic Patch Panel	6.000 EACH	_____.____	_____.____
0400	SPV.0060 Special 213. Ethernet Switch	6.000 EACH	_____.____	_____.____
0402	SPV.0060 Special 215. Electrical Service Pedestal	5.000 EACH	_____.____	_____.____
0404	SPV.0060 Special 218. EVP 1 Channel 1 Direction Infrared Detector	25.000 EACH	_____.____	_____.____
0406	SPV.0060 Special 221. EVP Phase Selector Card 4 Channel	6.000 EACH	_____.____	_____.____
0408	SPV.0060 Special 223. EVP Confirmation Light	25.000 EACH	_____.____	_____.____
0410	SPV.0060 Special 225. Vehicular Video Detection System-2 Cameras	3.000 EACH	_____.____	_____.____
0412	SPV.0060 Special 228. Electrical Riser	13.000 EACH	_____.____	_____.____
0414	SPV.0060 Special 267. Pedestrian Countdown Signal Face 12-Inch	65.000 EACH	_____.____	_____.____
0416	SPV.0060 Special 268. Voice Instruction Audible Push button	8.000 EACH	_____.____	_____.____
0418	SPV.0060 Special 269. Voice Instruction Audible Control Unit	1.000 EACH	_____.____	_____.____
0420	SPV.0060 Special 278. Remove Traffic Signal Face	3.000 EACH	_____.____	_____.____
0422	SPV.0060 Special 281. Round Aluminum Sign Post System In Soft Surface 10-Foot	37.000 EACH	_____.____	_____.____
0424	SPV.0060 Special 284. Round Aluminum Sign Post System In Concrete Surface 7-Foot	15.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0426	SPV.0060 Special 285. Round Aluminum Sign Post System In Concrete Surface 10-Foot	7.000 EACH	_____.____	_____.____
0428	SPV.0060 Special 288. Sign Mounting Hardware on Existing Pole (Concrete, Aluminum, or Steel)	116.000 EACH	_____.____	_____.____
0430	SPV.0060 Special 290. Street Name Sign Mounting Hardware on Existing Pole	18.000 EACH	_____.____	_____.____
0432	SPV.0060 Special 302. Pull Boxes 13-Inch x 24-Inch x 24-Inch	180.000 EACH	_____.____	_____.____
0434	SPV.0060 Special 303. Pull Boxes 17-Inch X 30-Inch X 24-Inch	74.000 EACH	_____.____	_____.____
0436	SPV.0060 Special 310. Remove Poles	117.000 EACH	_____.____	_____.____
0438	SPV.0060 Special 312. Poles Type A26 Grey Direct Bury	4.000 EACH	_____.____	_____.____
0440	SPV.0060 Special 313. Poles Type A-31	7.000 EACH	_____.____	_____.____
0442	SPV.0060 Special 315. Poles Type 22-AL Direct Bury	8.000 EACH	_____.____	_____.____
0444	SPV.0060 Special 320. Poles Type 25-AL-BD.	98.000 EACH	_____.____	_____.____
0446	SPV.0060 Special 321. Poles Type 30-AL-BD	7.000 EACH	_____.____	_____.____
0448	SPV.0060 Special 324. 40 ft. Wood Poles	94.000 EACH	_____.____	_____.____
0450	SPV.0060 Special 339. Secondary Riser	31.000 EACH	_____.____	_____.____
0452	SPV.0060 Special 343. Watertight Splices & Connections	225.000 EACH	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0454	SPV.0060 Special 345. Luminaire Arm Single Member 6-Ft.	205.000 EACH	_____.____	_____.____
0456	SPV.0060 Special 346. Luminaire Arm Single Member 6-Ft. WP Mount	77.000 EACH	_____.____	_____.____
0458	SPV.0060 Special 355. Install A21-A26 Mounting Clamp Single Bracket	4.000 EACH	_____.____	_____.____
0460	SPV.0060 Special 357. Luminaire Arms Mounting Clamps A-31 Single Bracket	7.000 EACH	_____.____	_____.____
0462	SPV.0060 Special 366. City Furnished Luminaire Utility High Pressure Sodium	77.000 EACH	_____.____	_____.____
0464	SPV.0060 Special 374. Luminairre Utility LED 1	17.000 EACH	_____.____	_____.____
0466	SPV.0060 Special 375. Luminaire Utility LED 2	179.000 EACH	_____.____	_____.____
0468	SPV.0060 Special 376. Luminaire Utility 3LED	29.000 EACH	_____.____	_____.____
0470	SPV.0060 Special 387. Remove Luminaire Complete	20.000 EACH	_____.____	_____.____
0472	SPV.0060 Special 400. Adjusting CUC Manhole Covers	40.000 EACH	_____.____	_____.____
0474	SPV.0060 Special 425. Installing Conduit into Existing Manhole	3.000 EACH	_____.____	_____.____
0476	SPV.0060 Special 876. Luminaires Underdeck LED	14.000 EACH	_____.____	_____.____
0478	SPV.0090 Special 001. Marking Line Epoxy, 12-Inch	1,490.000 LF	_____.____	_____.____
0480	SPV.0090 Special 002. Concrete Curb & Gutter Integral 31-Inch	3,744.000 LF	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0482	SPV.0090 Special 003. Marking Crosswalk Epoxy Transverse Line 12-Inch	798.000 LF	_____.____	_____.____
0484	SPV.0090 Special 302. Electrical Cable Type 3#6 AL Triplex	4,500.000 LF	_____.____	_____.____
0486	SPV.0090 Special 304. Electrical Cable Type 2#2/1#4 AL Triplex Overhead	4,200.000 LF	_____.____	_____.____
0488	SPV.0090 Special 307. Electrical Cable Type 3#4/1#8 LTP	325.000 LF	_____.____	_____.____
0490	SPV.0090 Special 314. Remove Aerial Cable	10,200.000 LF	_____.____	_____.____
0492	SPV.0090 Special 319. Liquidtight Flexible Nonmetallic Conduit 1 1/2-Inch	850.000 LF	_____.____	_____.____
0494	SPV.0090 Special 321. Electrical Cable 3#8/1#8 XLP	60.000 LF	_____.____	_____.____
0496	SPV.0090 Special 323. Electrical Cable 3#4/1#8 XLPE Type USE-2	915.000 LF	_____.____	_____.____
0498	SPV.0090 Special 324. Electrical Cable 3#2/1#8 XLPE Type USE-2	19,455.000 LF	_____.____	_____.____
0500	SPV.0090 Special 325. 3-Inch HDPE Conduit	19,045.000 LF	_____.____	_____.____
0502	SPV.0090 Special 401. 1-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	39.000 LF	_____.____	_____.____
0504	SPV.0090 Special 402. 2-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	68.000 LF	_____.____	_____.____
0506	SPV.0090 Special 426. Sawing concrete- Encased Duct Package	58.000 LF	_____.____	_____.____

Proposal ID: 20230314014 **Project(s):** 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID / Description	Approximate Quantity and Units	Unit Price	Bid Amount
0508	SPV.0090 Special 702. Marking Line Epoxy 6-Inch	2,379.000 LF	_____.____	_____.____
0510	SPV.0090 Special 704. Marking Crosswalk Epoxy Transverse Line 12-Inch	859.000 LF	_____.____	_____.____
0512	SPV.0090 Special 705. Marking Crosswalk Epoxy Block Style 12-Inch	8,020.000 LF	_____.____	_____.____
0514	SPV.0090 Special 706. Marking Stop Line Epoxy 24-Inch	1,103.000 LF	_____.____	_____.____
0516	SPV.0195 Special 001. Management of Solid Waste	7.000 TON	_____.____	_____.____

Section: 0001 **Total:** _____.____

Total Bid: _____.____

PLEASE ATTACH ADDENDA HERE

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

March 8, 2023

NOTICE TO ALL CONTRACTORS:

Proposal #14: **2545-03-72, WISC 2023282**
76th St (STH 181)
Intersection With Hampton Avenue
Local Street
Milwaukee County

2545-09-71, WISC 2023283
C Milwaukee W Hampton Avenue
N 60th St – N Teutonia Avenue
Local Street
Milwaukee County

2545-09-71, WISC 2023283
C Milwaukee W Center St
Ints w/ W Lisbon Ave & N 60th St
Local Street
Milwaukee County

Letting of March 14, 2023

This is Addendum No. 01, which provides for the following:

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
460.2005	Incentive Density PWL HMA Pavement	DOL	17,000	-4,600	12,400

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
460.2000	Incentive Density HMA Pavement	DOL	0	4,600	4,600

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
419	2545-09-71: Miscellaneous Quantities – updated PWL Mixture Table and MQ table with correct pay item 460.2000; Clarified locations of where PWL or QMP are required.

Schedule of Items
Attached, dated March 8, 2023, are the revised Schedule of Items Pages 3 and 18.

Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 2545-09-71 – page 419

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

END OF ADDENDUM

Addendum No. 01
ID 2545-09-71
Revised Sheet 419
March 8. 2023

3

CATEGORY	LOCATION	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT DOL	460.2007 INCENTIVE DENSITY HMA PAVEMENT LONGITUDINAL JOINTS DOL	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT DOL
0010	W HAMPTON AVE	2	4	4,600	12,400	10,900	12,400
	TOTAL 0010	2	4	4,600	12,400	10,900	12,400

PWL MIXTURE USE TABLE

The following acceptance criteria are applicable for this project:

Location	Station	Mixture Use:	Underlying Surface	Bid Item	Tons	Thickness	Quality Management Program to be used for:	
							Mixture Acceptance	Density Acceptance
11 foot driving lane; Median Turn Lanes; Major Intersections	276'WB'+00 to 385'WB'+00	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	2717	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
11 foot driving lane; Median Turn Lanes; Major Intersections	276'WB'+00 to 385'WB'+00	Lower Layer	Existing Concrete Pavement	4 MT 58-28 S	3481	2.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
8-10 foot parking lane; Minor Intersection Returns; Cross Overs	276'WB'+00 to 385'WB'+00	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	1002	1.75"	QMP as per SS 460	Incentive Density HMA Pavement 460.2000
8-10 foot parking lane; Minor Intersection Returns; Cross Overs	276'WB'+00 to 385'WB'+00	Lower Layer	Existing Concrete Pavement	4 MT 58-28 S	1300	2.25"	QMP as per SS 460	Incentive Density HMA Pavement 460.2000
11 foot driving lane; Median Turn Lanes; Major Intersections	276'EB'+00 to 385'EB'+00	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	2716	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
11 foot driving lane; Median Turn Lanes; Major Intersections	276'EB'+00 to 385'EB'+00	Lower Layer	Existing Concrete Pavement	4 MT 58-28 S	3482	2.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
8-10 foot parking lane; Minor Intersection Returns; Cross Overs	276'EB'+00 to 385'EB'+00	Upper Layer	4 MT 58-28 S	4 MT 58-28 S	1002	1.75"	QMP as per SS 460	Incentive Density HMA Pavement 460.2000
8-10 foot parking lane; Minor Intersection Returns; Cross Overs	276'EB'+00 to 385'EB'+00	Lower Layer	Existing Concrete Pavement	4 MT 58-28 S	1300	2.25"	QMP as per SS 460	Incentive Density HMA Pavement 460.2000

3

CATEGORY	STATION	TO	STATION	LOCATION	601.0322 CONCRETE CURB & GUTTER 22-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	SPV.0090.002 CONCRETE CURB & GUTTER INTEGRAL 31-INCH LF
0010	276+83	-	279+75	N. 60th St. to N. 58th St	67	327	60
0010	279+75	-	283+25	N. 58th St to N. 57th St	145	236	121
0010	283+25	-	286+50	N 57th to N. 56 th St.	141	197	207
0010	286+50	-	289+60	N. 56th to N. 55th	162	389	--
0010	289+60	-	293+00	N. 55 to N 54 th	294	538	--
0010	293+00	-	296+40	N. 54th st. to N. 53rd	146	189	121
0010	296+40	-	302+00	53rd to 51st	246	413	337
0010	302+00	-	309+30	51st to 49th	247	280	280
0010	309+30	-	316+00	49th to 47th	385	153	410
0010	316+00	-	322+50	47th to 45th	451	312	291
0010	322+50	-	329+00	45 to sherman	464	406	189
0010	329+00	-	335+50	Sherman to 41st	391	328	60
0010	335+50	-	342+00	41st-39th	319	179	520
0010	342+00	-	348+00	39th-hopkkins	287	473	139
0010	348+00	-	354+75	hopkins to 35th	77	463	60
0010	354+75	-	361+25	35th to RR overpass	202	434	256
0010	361+25	-	367+75	RR overpass to 31st	79	340	102
0010	367+75	-	376+35.76	31st to 29th	29	307	591
				TOTAL 0010	4,132	5,964	3,744

CATEGORY	STATION	TO	STATION	LOCATION	601.0600 CONCRETE CURB PEDESTRIAN LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0420 CONCRETE SIDEWALK 7-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
0010	276+83	-	279+75	N. 60th St. to N. 58th St	22	1450.13	891	60
0010	279+75	-	283+25	N. 58th St to N. 57th St	88	2052.64	391	120
0010	283+25	-	286+50	N 57th to N. 56 th St.	52	2131.76	522	120
0010	286+50	-	289+60	N. 56th to N. 55th	61	1030.46	333	110
0010	289+60	-	293+00	N. 55 to N 54 th	141	1290.19	804	190
0010	293+00	-	296+40	N. 54th st. to N. 53rd	82	790.76	355	110
0010	296+40	-	302+00	53rd to 51st	67	2959.76	988	140
0010	302+00	-	309+30	51st to 49th	88	2269.25	376	140
0010	309+30	-	316+00	49th to 47th	144	778.2	120	210
0010	316+00	-	322+50	47th to 45th	112	1121.19	604	160
0010	322+50	-	329+00	45 to sherman	92	3632.4	289	200
0010	329+00	-	335+50	Sherman to 41st	146	2998.38	0	180
0010	335+50	-	342+00	41st-39th	106	3362.11	0	160
0010	342+00	-	348+00	39th-hopkkins	196	1942.95	350	70
0010	348+00	-	354+75	hopkins to 35th	281	4407.57	0	160
0010	354+75	-	361+25	35th to RR overpass	127	3537.86	115	100
0010	361+25	-	367+75	RR overpass to 31st	176	3317.12	0	90
0010	367+75	-	376+35.76	31st to 29th	12	5467.46	318	150
				TOTAL 0010	1,994	44,540	6,457	2,470

Proposal ID: 20230314014 Project(s): 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	455.0605 Tack Coat	10,356.000 GAL	_____._____	_____._____
0066	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____._____	_____._____
0068	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	4.000 EACH	_____._____	_____._____
0070	460.2005 Incentive Density PWL HMA Pavement	12,400.000 DOL	1.00000	12,400.00
0072	460.2007 Incentive Density HMA Pavement Longitudinal Joints	10,900.000 DOL	1.00000	10,900.00
0074	460.2010 Incentive Air Voids HMA Pavement	12,400.000 DOL	1.00000	12,400.00
0076	460.6224 HMA Pavement 4 MT 58-28 S	17,000.000 TON	_____._____	_____._____
0078	465.0105 Asphaltic Surface	412.000 TON	_____._____	_____._____
0080	465.0110 Asphaltic Surface Patching	25.000 TON	_____._____	_____._____
0082	601.0319 Concrete Curb & Gutter 19-Inch	222.000 LF	_____._____	_____._____
0084	601.0322 Concrete Curb & Gutter 22-Inch	4,132.000 LF	_____._____	_____._____
0086	601.0331 Concrete Curb & Gutter 31-Inch	7,919.000 LF	_____._____	_____._____
0088	601.0600 Concrete Curb Pedestrian	1,994.000 LF	_____._____	_____._____
0090	602.0410 Concrete Sidewalk 5-Inch	50,315.000 SF	_____._____	_____._____
0092	602.0420 Concrete Sidewalk 7-Inch	6,457.000 SF	_____._____	_____._____
0094	602.0515 Curb Ramp Detectable Warning Field Natural Patina	2,640.000 SF	_____._____	_____._____

Proposal ID: 20230314014 Project(s): 2545-03-72, 2545-09-71, 2984-13-74

Federal ID(s): WISC 2023282, WISC 2023283, WISC 2023286

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0508	SPV.0090 Special 702. Marking Line Epoxy 6-Inch	2,379.000 LF	_____.____	_____.____
0510	SPV.0090 Special 704. Marking Crosswalk Epoxy Transverse Line 12-Inch	859.000 LF	_____.____	_____.____
0512	SPV.0090 Special 705. Marking Crosswalk Epoxy Block Style 12-Inch	8,020.000 LF	_____.____	_____.____
0514	SPV.0090 Special 706. Marking Stop Line Epoxy 24-Inch	1,103.000 LF	_____.____	_____.____
0516	SPV.0195 Special 001. Management of Solid Waste	7.000 TON	_____.____	_____.____
0518	460.2000 Incentive Density HMA Pavement	4,600.000 DOL	1.00000	4,600.00

Section: 0001 Total: _____.____

Total Bid: _____.____