HIGHWAY WORK PROPOSAL

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

Proposal Number: 031

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Sheboygan	4291-02-71	WISC 2022107	C Sheboygan, Indiana Ave; Esslingen Park To South 24th Street	LOC STR

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: $75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: December 14, 2021 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time October 21, 2022	
Assigned Disadvantaged Business Enterprise Goal 14%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work:
Grade, Storm Sewer, Sanitary Sewer, Water Main, Base, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Sidewalk, Beam Guard, Signing, Signals, Lighting, Pavement Marking, Structure B-59-048

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

(1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:

1. Electronic bid on the internet.
2. Electronic bid on a printout with accompanying diskette or CD ROM.
3. Paper bid under a waiver of the electronic submittal requirements.

(2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.

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

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

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

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

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

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

1. Have a properly executed annual bid bond on file with the department.

2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.

(2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:

1. Download the latest schedule of items reflecting all addenda from the Bid Express™ web site.
2. Use Expedite™ software to enter a unit price for every item in the schedule of items.
3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
4. Submit the bid before the hour and date the Notice to Contractors designates.
5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.

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

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

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

C Waiver of Electronic Submittal

(1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.

(2) Submit a schedule of items on paper conforming to section 102 of the standard specifications. The department charges the bidder a $75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."

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

1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
2. The bidder fails to pay the $75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the $75.
3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.

(4) In addition to the reasons specified in section 102 of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 4291-02-71, C Sheboygan, Indiana Ave, Esslingen Park to South 24th Street, Loc Str, Sheboygan 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, 2022 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 (20210708)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate dense, rehabilitation of Structure B-59-0048, concrete pavement, HMA pavement, pavement marking, permanent signing, traffic signals, lighting, storm sewer, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

A General

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.

B Contractor Coordination

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

Hold progress meetings once a week. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work to begin within the next two weeks are to attend and provide a written schedule of the next week(s) operations. Include beginning and ending dates of specific prime and subcontractor work operations. Agenda items shall include review of contractor's schedule and subcontractor's schedule, evaluation of progress and pay items, and revisions, if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems of conflicts between contractors.

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

C Work Restrictions

Excavation material and cleared and grubbed material shall be stockpiled on upland areas an adequate distance away from wetlands, storm sewer inlets, floodplains, and the waterways as determined by the engineer.

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

Within Roy Sebald Sheboygan River Natural Area, do not store equipment, vehicles, materials, or disturb existing ground 5 feet beyond the slope intercepts.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours. Furnish any ordinance variance issued by the municipality or required permits to the engineer in writing three business days prior to performing such work.

Maintain pedestrian facilities according to Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements at all times. Construct temporary pedestrian access accommodations (crosswalks, curb ramps, and pedestrian surfaces) as shown in the plans, or where necessary, as directed by the engineer. Payment for the construction of temporary pedestrian access accommodations will be made by the department under the bid items Temporary Pedestrian Surface Asphalt and Temporary Curb Ramp, unless otherwise shown on the plans.

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

Do not switch traffic to the next construction stage until all signing, pavement marking, traffic control devices for the stage are in place, conflicting pavement markings and signs are covered or removed, and as directed by the engineer.

Northern Long-eared Bat *(Myotis septentrionalis)*

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

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

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

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

4. Traffic.

General

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control as shown on the plans. Submit the plan 14 days before the preconstruction conference, or if after the preconstruction conference, 14 days before the intended use of the revised traffic control. A request does not constitute approval.

Do not disturb, remove, or obliterate any traffic control signs, or advisory signs in place along the traveled roadways without the approval of the engineer. Immediately repair or replace any damage done to the above during the construction operations at contractor’s expense.

Provide 24 hour-a-day availability of equipment and forces to expeditiously restore devices such as, but not limited to, pavement marking, lights, signs, drums, barricades, arrow boards, or other traffic control devices that are damaged or disturbed. The department will pay for materials that the engineer deems necessary to maintain these items at contract unit prices, or as extra work, if the disturbance or damage is not the result of the contractor’s operations, negligence, or noncompliance with the requirements of the contract.

Conduct operations in such a manner that causes the least interference and inconvenience to the free flow of vehicles, bicyclists, and pedestrians on the roadways, sidewalks, and path. This includes the following:

1. Do not park or store any vehicle, piece of equipment, or construction materials within the roadway lateral clearance or on adjacent streets beyond the project limits without approval of the engineer.
2. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic, bicyclists, and pedestrians.
3. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1,000 feet. Activate the beam when merging into or exiting a live traffic lane.

Maintain areas for turning vehicles at all times, except for specific construction operations in those areas. Undistributed quantities of Base Aggregate Dense 1 1/4-Inch are included in this contract to accommodate the turning movements.

Maintain a minimum of 1 foot of lateral clearance from the edge of live travel lanes to all traffic control devices.

Do not use flag persons to direct, control, or stop traffic, unless provided written approval from the engineer.

Upon utilizing the crossovers, designate a representative to monitor the condition of the temporary pavement for a period of not less than 8 hours after the switch and prior to beginning any work that may take place upon the existing roadway after completion of the traffic switch. Should the temporary pavement show signs of failure, immediately notify the engineer.

The project includes street lighting and traffic signals. Maintain existing traffic signals and functionality of the lighting system at Taylor Drive. Maintain existing traffic signals at each intersection until temporary traffic signals are in place and operating at that intersection.

General Traffic Operations During All Stages

Maintain one lane of traffic in each direction on County Trunk Highway (CTH) PP from Esslingen Park to Taylor Drive and along Taylor Drive within the project limits at all times.

Maintain one lane of eastbound traffic at all times on CTH PP from Taylor Drive to 24th Street.

Maintain a minimum lane width of 11 feet at all times during construction and provide wider lane widths when shown in the plans.

Clear Zone Working Restrictions

Limit the length of open utility trenches adjacent to live travel lane to 100 feet. Backfill or plate utility trenches adjacent to live travel lane during non-working hours.

If unsure whether an individual work operation will meet the safety requirements for working within the lateral clearance, review the proposed work operation with the engineer before proceeding with the work.

Property Access

Maintain access to all commercial and private entrances at all times for local residents, businesses, emergency vehicles, garbage pickup, and postal services on existing pavement, temporary pavement, or base aggregate dense according to the plans or as directed by the engineer. Maintain a minimum travel width of 20 feet for temporary access to business entrances and a minimum travel width of 10 feet for temporary access to residential entrances. Additional intermediate construction staging or staging gaps, not shown on the plans, may be necessary to maintain continuous access to all properties. A minimum of one driveway access shall be maintained at all times for businesses having multiple access points. Contact the property owner 48 hours prior to removing any existing entrance in order to coordinate temporary closures. Restore private entrances, including a gravel surface, within 12 hours of removal.

If the contractor coordinates the closure of any access to a business or private property with the owner(s), provide written documentation of coordination with the owner(s) to the engineer, prior to the start of work regarding the access closure.

Pedestrian Access

Maintain pedestrian access, including access to all businesses and residences at all times, according to current Americans with Disabilities Act Accessibility Guidelines (ADAAG), within the project limits by means of existing sidewalk, Temporary Pedestrian Surface Asphalt bid item, Temporary Curb Ramp bid item, or new sidewalk at a minimum width of 5 feet. Preserve the existing sidewalk as long as practicable to maintain pedestrian access. Provide temporary pedestrian access as detailed in the plans and as directed by the engineer. Place Temporary Pedestrian Barricade as shown in the plans and as directed by the engineer. When required as shown in the plans, close sidewalks according to the standard detail drawing "Traffic Control, Pedestrian Accommodation."

Traffic Control Signs PCMS

Install Traffic Control Signs PCMS at the project ends to notify motorists of upcoming construction activities one week before the start of construction activities and three days prior to beginning each construction stage or prior to any detour. These timeframes may be adjusted by the engineer.

Coordinate the locations of Traffic Control Signs PCMS with the engineer. Obtain acceptance from the engineer for all messages for all Traffic Control Signs PCMS.

Advance Notification

Notify City of Sheboygan first responders (police, fire, and emergency medical services [EMS]), Sheboygan County Sheriff's Department, Shoreline Metro Transit, garbage and recycling pick-up companies, and the post office two weeks in advance of all traffic switches, lane closures, road closures, and detours. Notifications should be confirmed with all parties one week before implementation. Parties shall also be notified if a closure is cancelled.

Traffic Control Operations

This information is included to assist the contractor and its subcontractors; do not interpret this information as a demonstration of specified means and methods. Coordinate the schedule of operations for the construction staging as shown in the plans and as noted in these special provisions. Do not move operations within the proposed construction staging unless modifications to the staging and schedule are approved in writing by the engineer. Address traffic, construction, transit, and pedestrians with any proposed staging modifications provided to the engineer.

Stage 1

Traffic

CTH PP: Provide one lane in each direction along CTH PP from Esslingen Park to Taylor Drive. Shift traffic to the outside of existing pavement. Provide one lane of one-way, eastbound traffic between Taylor Drive to 24th Street traveling along the existing south curbline. Detour westbound CTH PP traffic to South Business Drive, Union Avenue, and Taylor Drive.

Taylor Drive: Reduce traffic along Taylor Drive to one lane in each direction and shift traffic to the outside existing lane. Accommodate all turning movements along the west, north, and south legs at the intersection of CTH PP and Taylor Drive.

South 24th Street: There are no closures. Maintain full access for eastbound traffic.

Construction

Construct the crossover at the western project limit along CTH PP for use in later stages.

Construct temporary pavement in the median located on the west leg of the intersection with Taylor Drive for use in later stages.

Construct the crossovers located along Taylor Drive, both north and south of the project limits, for use in later stages.

Construct westbound travel lanes along CTH PP to the east of Taylor Drive and all other associated items as shown on the plans.

Pedestrians

Close existing sidewalk from Station 41+61 LT to Station 42+78 LT.

Maintain all existing pedestrian accommodations as shown in the plans.

Stage 2

Traffic

CTH PP: Shift traffic along CTH PP to the north side of CTH PP running counter-directional. Provide one lane in each direction along CTH PP from Esslingen Park to Taylor Drive. Provide one lane of one-way, eastbound traffic between Taylor Drive to South 24th Street on the newly constructed pavement (westbound lane and shoulder). Detour westbound CTH PP traffic to South Business Drive, Union Avenue, and Taylor Drive.

Taylor Drive: Shift traffic along Taylor Drive to the existing northbound lanes running counter-directional. Provide one lane in each direction along Taylor Drive. Accommodate all turning movements along the west, north, and south legs at the intersection of CTH PP and Taylor Drive.

South 24th Street: Maintain one-way southbound traffic and shift traffic to the west side of South 24th Street. Restrict on-street parking within the work zone limits to accommodate southbound traffic on South 24th Street.

Construction

Construct eastbound travel lanes along CTH PP, multi-use path, and all other associated items as shown on the plans.

Construct the southwest leg of the Taylor Drive intersection.

Construct the east side of South 24th Street.

Pedestrians

Close the existing sidewalk from Station 40+21 RT to Station 41+30 RT and from Station 42+00 to Station 42+78 RT.

Provide pedestrian access to South 24th street with a crossing at Station 41+45, as shown in the plans.

Provide temporary bicycle and pedestrian accommodations on the south leg of the Taylor Drive intersection, as shown in the plans.

Maintain Taylor Drive multi-use path, as shown in the plans.

Stage 2A

Traffic

CTH PP: Traffic pattern from Stage 2 will be maintained.

Taylor Drive: Shift traffic along Taylor Drive to the newly constructed southbound lanes. At the intersection of CTH PP and Taylor Drive, accommodate all turning movements along the west, north, and south legs, except the eastbound left, northbound left, and southbound right for a WB-65.

South 24th Street: Maintain one-way southbound traffic and shift traffic to the east side of South 24th Street. Restrict on-street parking within the work zone limits to accommodate southbound traffic on South 24th Street.

Construction

Continue constructing eastbound travel lanes along CTH PP, multi-use path, and all other associated items as shown on the plans.

Construct the southeast leg of the Taylor Drive intersection.

Construct the west side of South 24th Street.

Pedestrians

Close the existing sidewalk from Station 40+21 RT to Station 41+30 RT.

Close the newly construction sidewalk at Station 41+60 LT.

Provide pedestrian access to South 24th Street on the newly constructed sidewalk and multi-use path in the southeast corner of the South 24th Street intersection as shown in the plans.

Continue to provide temporary bicycle and pedestrian accommodations on the South leg of the Taylor Drive intersection as shown in the plans.

Provide temporary bicycle and pedestrian access accommodations to maintain access to the Taylor Drive multi-use path as shown in the plans.

Stage 3

Traffic

CTH PP: Shift traffic along CTH PP to the newly constructed eastbound lanes, running counter-directional. Provide one lane in each direction along CTH PP from Esslingen Park to Taylor Drive. Provide one lane of one-way, eastbound traffic between Taylor Drive to South 24th Street on the newly constructed eastbound lanes. Detour westbound CTH PP traffic to South Business Drive, Union Avenue, and Taylor Drive.

Taylor Drive: Maintain counter-directional traffic along Taylor Drive on the southbound lanes. At the intersection of CTH PP and Taylor Drive, accommodate all turning movements along the west, north, and south, except the eastbound right for a WB-65.

South 24th Street: There are no closures. Maintain full access.

Construction

Construct the northeast corner of the Taylor Drive intersection.

Construct westbound CTH PP from Esslingen Park to Taylor Drive.

Pedestrians

Provide temporary bicycle and pedestrian accommodations on the east leg of the Taylor Drive intersection as shown in the plans.

Maintain Taylor Drive multi-use path, as shown in the plans.

Maintain multi-use path along CTH PP, as shown in the plans.

Maintain pedestrian access to South 24th Street, as shown in the plans.

Stage 3A

Traffic

CTH PP: Traffic pattern from Stage 3 will be maintained.

Taylor Drive: Shift traffic along Taylor Drive to the northbound lanes, running counter-directional. At the intersection of CTH PP and Taylor Drive, accommodate all turning movements along the west, north, and south legs, except the southbound left for a WB-65.

South 24th Street: Instructions are the same as Stage 3.

Construction

Continue construction of westbound CTH PP from Esslingen Park to Taylor Drive.

Construct the northwest corner of the Taylor Drive intersection.

Pedestrians

Maintain all facilities, as shown in the plans.

Stage 4

Traffic

CTH PP: Shift traffic along CTH PP to the outside where median work is required to restore the medians where crossovers were located. Where median work is not required, maintain traffic along CTH PP utilizing the newly constructed roadway in its finished condition.

Taylor Drive: Shift traffic along Taylor Drive to the outside where median work is required to restore the medians where crossovers were located. Where median work is not required, maintain traffic along Taylor Drive utilizing the newly constructed roadway in its finished condition.

South 24th Street: There are no closures. Maintain full access.

Construction

Remove crossovers and restore the medians.

Pedestrians

Maintain all facilities, as shown in the plans.

Stage 5

Traffic

CTH PP: Shift eastbound traffic along CTH PP to the inside where shoulder work is required.

Taylor Drive: There are no closures. Maintain full access.

South 24th Street: There are no closures. Maintain full access.

Construction

Construct shoulder, as shown on plans.

Pedestrians

Maintain all facilities, as shown in the plans.

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 CTH PP traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

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

stp-107-005 (20210113)

6. Utilities.

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

stp-107-066 (20080501)

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 10 working days in advance of when the prior work will be completed, and the site will be available to the utility owner. Follow up with a confirmation notice to the engineer and the utility owner three to five working days before the site will be ready for the utility owner to begin its work.

Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Use caution to protect the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Prospective bidders are cautioned that the arrangements set forth in this article represent the utility companies' best estimate of their plans to relocate and/or adjust conflicting facilities.

Utility companies will be performing utility work and adjustments within the limits and during the project. Cooperate and coordinate construction activities with these utility companies.

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

Known utilities in the project area are as follows and station locations are approximate locations:

Alliant Energy (Electric)

General Alliant Energy Utility Description

Alliant Energy has underground facilities that are located from the west project limit to the Roy Sebald Sheboygan River Natural Area along the north side of the roadway. Underground facilities are also located north of CTH PP along the east side of Taylor Drive. Overhead facilities exist at the intersection of CTH PP and Taylor Drive.

Alliant Energy Plans to Address Identified Conflicts

Alliant Energy will discontinue all overhead facilities at the intersection of CTH PP and S. Taylor Drive from Station 18+40 to Station 24+70. One exception will be the pole at Station 22+00 RT; this pole will be discontinued in place for ExteNet Systems to remove or relocate because Extenet Systems equipment is on this pole.

Alliant Energy will be installing new underground cable starting at approximately Station 18+60 LT where it will splice into the existing underground cable. New underground cable will head south, crossing CTH PP near Station 18+40 RT, then head due east crossing South Taylor Drive and continuing east until approximately Station 25+50 RT, where it will turn south and leave the right-of-way (right-of-way) and end at pad mount equipment on private property. Pad mount equipment will be placed near new or existing streetlight or traffic control cabinets, with new service laterals to supply them once customer equipment is ready. Coordinate new service to new traffic control cabinet once new equipment is installed. The location of the new metering equipment will need to be provided so pad mount equipment can be determined.

A new service, and possibly pad mount equipment, will have to be placed or run to the new ExteNet Systems pole/Meter location, whose location is unknown at this time.

The existing pole at Station 40+25 RT will remain, and the streetlight and secondary wire will be retired. The existing pole at Station 41+40 RT will be removed. No new facilities will be installed near the South 24th Street and Indiana Avenue.

Services to the new traffic control cabinet will need to be coordinated once new equipment is installed. The location of the new metering equipment will need to be provided to Alliant so pad mount equipment can be determined. The service to the new ExteNet systems pole/meter will need to be coordinated once its equipment is relocated. Retirement of the existing streetlight poles at the intersection of Taylor Drive and CTH PP will need to be coordinated during construction after the temporary traffic signals have been installed and are operational.

Relocation work is anticipated to start November 1, 2021, and take 15 working days. It is anticipated that all relocation work will be completed prior to construction. Work during construction to provide new service to the new signal cabinet is anticipated to take two working days.

Contact Information: Ben Reisen, 920-459-6367, BenReisen@alliantenergy.com

AT&T (Communications)

General AT&T Utility Description

AT&T has facilities throughout the project. Overhead facilities run along the south side of CTH PP from the west project limit to east of the Sheboygan River Bridge. From east of the Sheboygan River bridge, facilities are buried on the south side of CTH PP to a cabinet located east of Parkview Terrace. A combination of overhead and underground facilities are present along the north side of CTH PP from the Roy Sebald Sheboygan River Natural Area driveway to the eastern project limit.

AT&T Plans to Address Identified Conflicts

AT&T has a duct package that extends beyond the east project limits to approximately Station 32+60, where it laterals to the south right-of-way line. The duct package is in conflict with the proposed storm sewer pipes at approximately Station 33+30, Station 35+12, Station 37+04, and Station 41+65. The proposed conflicts will be resolved during construction, as the duct package will be adjusted to provide the necessary clearance. This relocation work is anticipated to take 15 days and will occur during construction. Contact AT&T prior to beginning storm sewer work at the locations listed above.

AT&T has two manholes near Station 35+30 and Station 42+05, which will require frame and cover adjustments at the time of paving. These adjustments are anticipated to take two working days to complete and will occur during construction.

Contact Information: Victoria Kassab, (920) 401-7512, vk352k@att.com

Charter (Communications)

General Charter Utility Description

Charter has both overhead and underground facilities that are located along the project length along the south side of CTH PP.

Charter Plans to Address Identified Conflicts

Charter will relocate its existing underground facilities at the Taylor Drive intersection from approximately Station 16+00 to 20+70, 60' RT to Station 16+00 to 20+70, at a varying offset from 50' to 100' RT. Additionally, Charter will place a pad mounted power supply at approximately Station 23+83, 44' RT.It is anticipated that this relocation effort will take 30 working days and begin on May 3, 2021. Relocation efforts are anticipated to be completed prior to construction.

Contact Information: Ron Mueller, (262) 429-9889, ronald.mueller@charter.com

City of Sheboygan (Sanitary)

General City of Sheboygan Sanitary Utility Description

The City of Sheboygan has sanitary sewer facilities that are located along the entire project length. Along CTH PP, west of the Roy Sebald Sheboygan River Natural Area, facilities are located north of CTH PP. East of Station 18+00, facilities run under CTH PP along the south side of the road. The City of Sheboygan also as a Sanitary Sewer Pump Station on the south side of the road at Station 23+25.

City of Sheboygan Sanitary Plans to Address Identified Conflicts:

City of Sheboygan (Sanitary) will be adjusted according to the plans. This work will be done as part of the project.

Contact Information: Kevin Jump, (920) 459-3367 office, (920) 946-5824 cell, kevin.jump@sheboyganwi.gov

Extenet (Communications)

General Extenet Utility Description

Extenet has existing facilities that run from Taylor Drive to the east project limit, primarily along the south side of the road.

Extenet Plans to Address Identified Conflicts

Extenet has existing facilities in the southeast corner of the Taylor Drive and Indiana Avenue intersection, as well as a node located on an Alliant Energy street light at Station 22+00. A new Extenet-owned, 40-foot wood pole will be installed at Station 22+00, south of the proposed path for an Extenet small cell node. Power will be bored underground across CTH PP at Station 22+00 from the new pole to a new Alliant Energy ground transformer located at the northeast corner of the Taylor Drive and Indiana Avenue intersection at approximately Station 20+75. A new handhole will be installed at Station 22+25, and new conduit will intercept existing conduit at approximately Station 25+00. This work will be completed prior to construction. It is anticipated to begin on October 20, 2021 and take 90 working days to complete.

Contact Information: Dale Dishman, (316) 640-8801 office, (866) 892-5327 cell, ddishman@extenetsystems.com

Sheboygan Water Utility (Water)

General Sheboygan Water Utility Description

Sheboygan Water Utility has water main that begins just west of Taylor Drive and continues to the east project limit, mostly along the south side of the road.

Sheboygan Water Utility Plans to Address Identified Conflicts

Sheboygan Water Utility facilities will be adjusted according to the plans. This work will be done as part of the project.

Contact Information: Dave McMillan, (920) 459-3839, davemcmillan@sheboyganwater.org

Windstream (Communications)

General Windstream Utility Description

Windstream has underground facilities located along the entire project length along the north side of CTH PP.

Windstream Plans to Address Identified Conflicts

Windstream will place a hand hole at Station 17+50, 81' LT, where the existing 48-count fiber going to the west will be intercepted. Two 2-inch innerducts will continue east in a joint trench with Wisconsin Public Service Gas (WPS), while one duct will continue south to intercept an existing fiber feeding the university. A handhole will be set at ± Station 17+50, 150' RT to accommodate this. Windstream will continue to the east in a joint trench/bore with WPS gas, until it reaches the east right-of-way of South 24th Street. Windstream will continue south along the east right-of-way to Station±41+78, 98' RT. Windstream will solo bore across South 24th Street where it will intercept an existing fiber and place a handhole (approximately Station 41+40, 88' RT).

Once placement and splicing is complete, Windsteam will discontinue (in place) the fiber cable that exists on the north side of CTH PP, going east from Station 18+00, 81' LT to Station 41+59, 16' LT. This will include a hand hole at about Station 22+71, 71' LT and about Station 41+59, 16' LT.

This relocation work is anticipated to begin in August 2021 and will take 30 to 45 working days to complete.

Contact Information: Lori Ketter, (414) 274-9215 office, (414) 274-9215 cell, Lori.Ketter@windstream.com

Wisconsin Public Service (Gas)

General Wisconsin Public Service Utility Description

Wisconsin Public Service has underground facilities that are located along the entire project length, primarily along the south side of CTH PP. There are also facilities that run along the west side of Taylor Drive.

Wisconsin Public Service Plans to Address Identified Conflicts

New 8-inch polyethylene will be installed on the south side of CTH PP from the west side of South Taylor Drive to Station 42+25. A new 8-inch polyethylene crossing of Indiana Avenue will be installed near Station 33+50.

This relocation work is anticipated to begin on August 16, 2021, and be completed prior to construction, in 40 working days.

Contact Information: Nick Wilbert, (920) 451-3733, nicholas.wilbert@wisconsinpublicservice.com

7. Other Contracts.

The City of Sheboygan and WisDOT will be letting Project 4291-00-72. Work consists of upgrading traffic signal control intersection coordination timing and traffic signal communication on several corridors within the city, which includes the traffic signals at Taylor Drive and Indiana Avenue. The project is expected to begin spring 2022 and be completed fall 2022.

Project 4291-00-72 includes the installation of radio communication hardware and new traffic signal coordination timing parameters. Coordination is required to allow the contractor under project 4291-00-72 to install the radio equipment and program or provide the timing parameters for signal coordination at the Taylor Drive and Indiana Avenue intersection. The contact for this contract is Mike Willmas, City of Sheboygan, Facilities and Traffic Unit, (920) 207-9742, Michael.willmas@sheboyganwi.gov.

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

Both the department, City of Sheboygan (sanitary sewer), and Sheboygan Water Utility (water main) 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 by the City of Sheboygan (sanitary sewer work) and Sheboygan Water Utility (water main work).

stp-105-001 (20140630)

9. Referenced Construction Specifications.

Construct the work enumerated below conforming to the City of Sheboygan Department of Public Works Technical Standards Right of Way Excavation and the Standard Specifications for Sewer and Water Construction in Wisconsin - latest addition. 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:

Sanitary Sewer

Water Main

stp-105-002 (20130615)

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

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Tim Verhagen, P.E. at (920) 362-1267. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

11. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

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

Use the following inspection and removal procedures:

1. Before leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;

3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can before leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
    4.1. Washing with ~212 F water (steam clean), or
    4.2. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
    4.3. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore, this disinfect should be used in conjunction with a hot water (>104º F) application.

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

stp-107-055 (20130615)

12. Construction Over or Adjacent to Navigable Waters.

The Sheboygan River is classified as a state navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

13. Erosion Control Structures.

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

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

stp-107-070 (20191121)

14. Notice to Contractor–Contamination Beyond Construction Limits.

Testing of soil and sediment has been completed by others along the Sheboygan River, adjacent to this project where excavation is required. Testing indicated that polychlorinated biphenyl (PCB), polycyclic aromatic hydrocarbon (PAH), and heavy metals contamination is present in river sediment and floodplain soils.

The contaminated sediment and soil throughout the limits of the project are expected in flood-prone areas where the existing ground surface elevation is below 590 feet and beyond the excavation limits necessary to complete the work under this project. Control construction operations on the project so that they do not extend beyond the excavation limits indicated in the plans. If contaminated soils are encountered on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting: Tim Verhagen, timothy.verhagen@dot.wi.gov, (920) 362-1267.

15. Notice to Contractor – Traffic Signal Materials.

Delivery of monotubes is on a several month backorder. Submit shop drawings for signal poles and arms to the engineer within ten calendar days after executing the contract. Order signal poles and arms within two business days after engineer approval.

16. Archaeological and Historical Findings.

Add the following to standard spec 107.25:

Do not run or store equipment, stockpile materials, set up materials processing or plant sites, excavate or in any way disturb areas outside of the grading limits adjacent to the following locations:

1. Parallel to CTH PP from Station 6+16 to 11+50 left and right (burial site).
2. Parallel to CTH PP from Station 13+00 to 19+50 right (burial site).

Monitoring of construction activities by a qualified archaeologist.

Notify WisDOT Cultural Resources (Lynn Cloud) at 608-266-0099 to make arrangements for an archaeologist to be present to monitor construction activities that disturb the ground including, but not limited to, removal of topsoil, clearing, grubbing, grading, and ditching, two weeks prior to commencing the construction activities at the following locations:

1. Parallel to County PP from Station 6+16 to 11+50 within the limits of construction.
2. Parallel to County PP from Station 13+00 to 19+50 within the limits of construction from the south ditch line to the south, including the right-of-way of South Taylor Drive.

A burial site protected under Wisconsin Law 157.70 is located within and beyond the construction limits left and right at Station 6+16 to 11+50. A burial site protected under Wisconsin Law 157.70 is located at Station 13+00 to 19+50 from the south ditch line to the south, including the right-of-way of South Taylor Drive. These burial sites, and any additional burial sites within the limits of construction that may be identified, shall be avoided. No use of these areas will be allowed for any reason.

17. 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 no further meetings will be required unless directed by the engineer. 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)

18. Erosion Control.

Supplement standard spec 107.20 with the following:

Erosion control best management practices (BMPs) shown on the plans are at suggested locations. The actual locations will be determined by the contractor's ECIP and by the engineer. Include any dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP will supplement information shown on the plans and not reproduce it. The ECIP will identify how to implement the project's erosion control plan. ECIP will demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of topsoil to minimize the period of exposure to possible erosion.

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

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

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

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

Do not allow any excavation for structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Prior to each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, according to Wisconsin Department of Natural Resources (WDNR) Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection. Dewatering is considered incidental to the project.

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

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

19. Traffic Signals and Lighting, General.

Ordering Traffic Signal and Lighting Equipment

One week prior to placing any orders for traffic signal or lighting equipment, review the equipment list with the City of Sheboygan. Contact Mike Willmas at (920) 459-3444.

All pedestal bases, transformer bases, poles Type 3, traffic signal standards, monotube poles, monotube arms, and traffic signal luminaire arms shall be painted black. All painting shall be done by the manufacturer.

20. Abatement of Asbestos Containing Material B-59-0048, Item 203.0211.S.

A Description

This special provision describes abating asbestos containing material on structures.

B (Vacant)

C Construction

Paul Garvey, License Number AII-117079, inspected Structure B-59-0048 for asbestos on August 13, 2019. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: ACM was detected in grey caulk within the parapet joints and sidewalk joints of the structure. The ACM is Category II Non-Friable and it is anticipated that 100 LF of caulk joints will be disturbed during bridge rehabilitation operations.

The RACM on this structure must be abated by a licensed abatement contractor. A copy of the inspection report is available from Timothy Verhagen, (920) 362-1267. According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form and the abatement report to Timothy Verhagen, (920) 362-1267 and DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S513.12, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-59-0048, CTH PP/Lower Falls Road over Sheboygan River
- Site Address: Section: 28, Town: 15N, Range: 23E. Latitude: 434424 (ddmmss), Longitude: 874454 (ddmmss). City of Sheboygan.
- Ownership Information: Section: 28, Town: 15N, Range: 23E. Latitude: 434424 (ddmmss), Longitude: 874454 (ddmmss). City of Sheboygan.
- Contact: Timothy Verhagen
- Phone: (920) 362-1267
- Age: 51 years. This structure was constructed in 1970.
- Area: 21,524 SF of deck

Insert the following paragraph in Section 6.g.:

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

D Measurement

The department will measure Abatement of Asbestos Containing Material B-59-0048 by each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
203.0211.S	Abatement of Asbestos Containing Material B-59-0048	EACH

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

stp-203-005 (20210708)

21. Removing Apron Endwalls, Item 204.9060.S.01.

A Description

This special provision describes removing apron endwalls conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

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

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Apron Endwalls	EACH

stp-204-025 (20150630)

22. Removing Street Light Poles, Item 204.9060.S.

A Description

This special provision describes removing Street Light Poles conforming to standard spec 204.

B (Vacant)

C Construction

Remove luminaire and pole, remove concrete base if applicable and remove all electrical wire.

D Measurement

The department will measure Removing Street Light Poles as each individual 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
204.9060.S.02	Removing Street Light Poles	EACH

stp-204-025 (20150630)

23. Epoxy Crack Sealing, Item 509.9020.S.

A Description

This special provision describes sealing vertical cracks in abutments as the plan details show.

B Materials

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

C Construction

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9020.S	Epoxy Crack Sealing	LF

Payment is full compensation for cleaning the cracks; and for furnishing and placing the epoxy sealant.

stp-509-020 (20100709)

24. Cleaning Parapets, Item 509.9050.S.

A Description

This special provision describes cleaning the inside faces and top surface of the concrete parapet as the plans show and as the engineer directs.

B (Vacant)

C Construction

C.1 Blast Cleaning Operation

Blast clean the inside face and top surface of the concrete parapet according to SSPC SP-13 and ASTM D4259 for an abrasive blast cleaning to a surface roughness and finish as the engineer directs. Before abrasive blast cleaning operations are to begin for the entire bridge parapet, prepare a representative trial area on the parapet concrete surface, and have the method of blast cleaning approved by the engineer.

C.2 Water Cleaning Operation

After abrasive blast cleaning operations are completed, clean the prepared parapet surface with water according to ASTM D4258. Remove with this water cleaning all dust and loose material from the parapet inside face and top that is to be coated with pigmented surface sealer. Provide an adequate drying time of the parapet inside face and top surface of at least 24 hours before coating with the pigmented surface sealer. Remove all loose concrete, dirt, dust, or blast material that remains on the bridge deck, as the engineer directs.

D Measurement

The department will measure Cleaning Parapets in length by the linear foot of parapet, acceptably cleaned.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9050.S	Cleaning Parapets	LF

Payment is full compensation for abrasive blast cleaning; for water cleaning; and for all additional clean up of the concrete surface and surrounding bridge deck area.

stp-509-050 (20151210)

25. Removing and Resetting Tubular Railing B-59-0048, Item 513.9006.S.

A Description

This special provision describes removing tubular railing and posts from existing bridge parapets, storing them, and then resetting them when the new parapet is complete.

B (Vacant)

C Construction

Remove the tubular railing and posts, taking care not to damage them. Store the tubular railing and posts in an area away from construction activities to preclude damage to them.

In the event that damage does occur to any item that is designated for re-use in the new work, repair or replace the damaged item at no expense to the department.

D Measurement

The department will measure Removing and Resetting Tubular Railing B-59-0048 as a single unit for each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
513.9006.S	Removing and Resetting Tubular Railing B-59-0048	EACH

Payment is full compensation for removing the tubular railing and posts; properly storing the tubular railing and posts; and for resetting the tubular railing and posts.

stp-513-090 (20210708)

26. 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)

27. Cover Plates Temporary, Item 611.8120.S.

A Description

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

B Materials

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

C (Vacant)

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	EACH

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

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

stp-611-006 (20151210)

28. Pull Boxes Steel 24x42-Inch, Item 653.0140.

Supplement Standard 653.2 to include the following:

The pull box covers shall have the following words imprinted from the manufacturer on the cover:

Cover for traffic signal pull boxes = TRAFFIC SIGNAL

Cover for street light pull boxes = STREET LIGHTING

29. Electrical Service Meter Breaker Pedestal CTH PP & Taylor Drive. Item 656.0200.01.

Supplement standard spec 656.2.3 to include the following:

(2) The department will be responsible for the electrical service installation request for any department maintained facility. Notify the maintaining authority if the signal is not state maintained. It is their responsibility to arrange for the electrical service installation.

(3) Electrical utility company service installation and energy cost will be billed to and paid for by the maintaining authority.

(4) Install the cabinet base and meter breaker pedestal first so the electrical utility company can install the service lateral. Install a 3-inch conduit from the point of service from the utility to the meter breaker pedestal. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize, seed, and mulch all areas that are disturbed by the electrical utility company.

Supplement standard spec 656.5 to include the following:

(8) Payment is full compensation for grading the service trench; replacing topsoil; and fertilizing, seeding, and mulching to restore the disturbed area of the service trench.

30. Concrete Surface Repair Corrosion Inhibiting Admixture, Item SPV.0035.01.

A Description

This special provision describes furnishing and incorporating a corrosion inhibiting admixture into the concrete surface repair concrete according to the requirements of standard spec 501, the details as shown on the plans, and as hereinafter provided.

B Materials

Use one of the following qualified admixture sources and products, or equal.

Admixture	Producer	Regional Supplier	Application Rate
Ipanex	IPA Systems, Inc. 2745 N. Amber Street Philadelphia, PA 19134 (215) 425-6607 (800) 523-3834	Braun Industrial Coatings & Eqpt., Inc. 3114 Todd Drive Madison, WI 53713 (608) 273-8877 Attn: Bill Braun	13.8 ounces per 100 pounds of cement
Rheocrete 222	Master Builders, Inc. Admixture Division 23700 Chagrin Blvd. Cleveland, OH 44122-5554 (216) 831-5500	Master Builders, Inc. Admixture Division PO Box A Mukwonago, WI 53149 (800) 869-9259 Attn: Neal R. Moss	1 gallon per cubic yard of concrete
Armatec 2000	Sika Corporation PO Box 297 Lyndhurst, NJ 07071 201-933-8800 (800) 933-7452	Conadmix, Inc. 1425 Commerce Avenue Brookfield, WI 53045 (414) 784-9003 Attn: Al Brunner	1/2 gallon per cubic yard of concrete

C Construction

Incorporate a corrosion-inhibiting admixture into the concrete mix of the concrete surface repair concrete only, according to standard spec 501.3.2.4, 501.3.4.4.1 and 501.3.4.7. Add the corrosion-inhibiting admixture in the proportions recommended by the manufacturer and under the supervision of the manufacturer and engineer to provide proper mix design and compatibility with other admixtures. The corrosion inhibiting admixture may or may not increase the amount of air entrainment in the concrete mix. For all admixtures used in air-entrained concrete, the air content of the concrete mix shall be within the range specified in standard spec 501.3.2.4 for air entrained concrete.

D Measurement

The department will measure Concrete Surface Repair Corrosion Inhibiting Admixture by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Concrete Surface Repair Corrosion Inhibiting Admixture	CY

Payment is full compensation for furnishing and incorporating the corrosion-inhibiting admixture into the concrete for the Concrete Masonry Bridges bid item.

31. Storm Sewer Cut-In, Item SPV.0060.01.

A Description

This special provision describes cutting in, or tapping, various sized storm sewer pipes into existing structures, including manholes, inlets, or other pipes at locations shown on the plans.

Perform the work according to the applicable provisions of standard spec 607 and standard spec 611, and as hereinafter provided.

B (Vacant)

C Construction

Cut into the existing structure to allow the pipe to be flush with the interior wall of the existing pipe or structure.

All necessary temporary shoring needed for construction of this item will not be paid for separately but will be included in this item of work.

D Measurement

The department will measure Storm Sewer Cut-In as each individual storm sewer cut-in, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Storm Sewer Cut-In	EACH

Payment is full compensation for providing all materials, including saw cuts, for excavating; for removing concrete; for providing and removing sheeting and shoring, making connections to new or existing facilities, and for cleaning out.

32. Adjusting Valve Box, Item SPV.0060.02.

A Description

This special provision describes adjusting water valve boxes.

B (Vacant)

C Construction

Adjust valve boxes by turning the box. Seat the valve box on the adjusting threads to prevent future settlement. Adjust the box to conform to the finished pavement and to be plumb to allow valve operation. Notify the engineer to check operation of valve after box adjustment. Do not pave until the valve box adjustment operation has been checked.

D Measurement

The department will measure Adjusting Valve Box, regardless of the number of adjustments, at 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.0060.02	Adjusting Valve Box	EACH

Payment is full compensation for providing all materials for adjusting each valve box.

33. Inlet Covers Type DW, Item SPV.0060.003.

A Description

Perform work according to the applicable provisions of standard spec 611 and as detailed in the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Inlet Covers Type DW as each individual Inlet Covers Type DW, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Inlet Covers Type DW	EACH

Payment is full compensation for providing new covers, including frames, grates, or lids, all other required materials, and for installing and adjusting each cover.

34. Utility Line Opening (ULO), Item SPV.0060.04.

A Description

This work consists of excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown on the plans or as directed by the engineer.

B (Vacant)

C Construction

Perform the excavation in such a manner that the utility in question is not damaged.

Perform the utility line openings as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Provide utility line openings with a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Notify the utility engineers or their agents of this work a minimum of three working days prior to the work so they may be present when the work is completed. Do not perform utility line openings without the approval of the engineer.

D Measurement

The department will measure Utility Line Opening (ULO) as each individual ULO, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Utility Line Opening (ULO)	EACH

Payment is full compensation for the excavation required to expose the utility line, backfilling with existing material removed from the excavation, compacting the backfill material, restoring the site, and for cleanup.

Existing pavement removal and any required sawcuts necessary to facilitate utility line openings will be considered part of or paid for under Utility Line Opening (ULO). Replacement pavement, concrete curb, gutter, and sidewalk items will be considered separate from Utility Line Opening (ULO) and will be measured and paid for separately.

35. Remove Traffic Signals, CTH PP & Taylor Drive, Item SPV.0060.05.

A Description

This special provision describes removing existing traffic signals at the intersection of CTH PP and Taylor Drive according to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Arrange for the de-energizing of the traffic signals with the local electrical utility after receiving approval from the engineer that the existing traffic signals can be removed.

Contact Mike Willmas, City of Sheboygan, at (920) 459-3444 at least five working days prior to the removal of the traffic signals to determine which items are to be salvaged and returned to the city. All other items are to be disposed of by the contractor. Complete the removal work as soon as possible following shut down of this equipment.

The city assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment identified to be salvaged that is damaged during removal will be replaced by the contractor at no cost to the department.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, mast arms, wiring and cabling, and traffic signal mounting devices from each signal standard, arm, or pole. All access hand hole doors and all associated hardware shall remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off right-of-way. Remove the signal cabinet from the footing. Salvage the traffic signal controller, traffic signal conflict monitor, and all traffic signal standards. Contact Mike Willmas, City of Sheboygan, at (920) 459-3444 at least five working days prior to delivery of salvaged materials to make arrangements. Deliver salvaged materials to the City of Sheboygan Public Works, 2026 New Jersey Avenue, Sheboygan, WI.

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

D Measurement

The department will measure Remove Traffic Signals, CTH PP & Taylor Drive as each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Remove Traffic Signals, CTH PP & Taylor Drive	EACH

Payment is full compensation for removing, disassembling traffic signals, scrapping of some materials, disposing of materials, and for delivering the requested materials to the city.

36. Traffic Signal Controller and Cabinet, CTH PP and Taylor Drive, Item SPV.0060.06.

A Description

This work shall consist of furnishing and installing the Traffic Signal Controller and Cabinet as shown on the plans and as hereinafter provided.

B Materials

B.1 Cabinet

B.1.1 Design

Furnish a door-in-door ground-mounted (without anchor bolts) aluminum cabinet of clean-cut design and appearance. Provide a cabinet of minimum size 44 inches wide, minimum 24 inches deep, and minimum 52 inches to maximum 60 inches high. The size of the cabinet shall provide ample space for housing the controller, all of the associated devices which are to be furnished with the controller, all other auxiliary devices herein specified, and all equipment to be furnished as listed in the Description section of this Specification.

The cabinet shall comply with the environmental and operating standards outlined in the NEMA TS2 Standard. The cabinet shall provide reasonable vandalism protection. The cabinet shall have a NEMA 3R rating.

Construct the cabinet from type 5052-H32 aluminum with a minimum thickness of 0.125 inches.

The cabinet exterior shall be painted black. All painting to be done by the manufacturer. Exterior color shall be Rustoleum #634402–High Gloss Black Enamel or approved equal.

The cabinet interior shall be painted white. All painting to be done by the manufacturer. Interior color shall be Rustoleum #2766402–High Gloss White Enamel or approved equal.

All painting shall be done by the manufacturer. Continuously weld all seams. The surface shall be smooth and free of marks and scratches. Use stainless steel for all external hardware.

On the top of the cabinet, incorporate a 1-inch slope toward the rear to prevent rain accumulation. Incorporate a rain channel into the design of the main door opening to prevent liquids from entering the enclosure.

Include an exhaust plenum with a vent screen into the roof of the cabinet. Perforations in the vent screen shall not exceed 0.125 inches in diameter. Two exhaust fans shall be installed.

Equip the lower section of the cabinet door with a louvered air entrance. The air inlet shall be large enough to allow sufficient air flow per the rated fan capacity. Louvers must satisfy the NEMA rod entry test for Type 3R ventilated enclosures. Secure a washable, fiberglass, removable air filter to the air entrance. The filter shall fit snugly against the cabinet door wall.

Attach an aluminum, easily removable, gasketed cover over the air filter and louver.

B.1.2 Doors

The main door and police door-in-door shall each close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door shall be a minimum of 0.188 inches thick by 1.00 inch wide. The gasket material for the police door shall be a minimum of 0.188 inches thick by 0.500 inches wide. Permanently bond the gaskets to the cabinet.

Equip the main door with a three-point latching mechanism. The upper and lower locking points of the latching mechanism shall each have a pair of nylon rollers. The handle on the main door shall utilize a shank of stainless steel 3/4 inches minimum diameter. The handle shall include a hasp for the attachment of an optional padlock. The cabinet door handle may turn either clockwise or counterclockwise to open and shall not extend outwards past the edge of the door at any time. Position the lock assembly so the key will not cause any interference with the handle, or a person’s hand on the handle, when opening the cabinet door.

Include on the main door a solid stainless steel rod stop and catch mechanism capable of rigidly holding the door open at approximately 90, 120, and 180 degrees under windy conditions. The operator must be able to engage and disengage the catch with a shoed or booted foot.

The main door hinge shall be a one-piece, continuous piano hinge with a minimum 0.25-inch stainless steel pin running the entire length of the right side of the door (right-handed). Attach the hinge in such a manner that no rivets or bolts are exposed.

Equip the main door with a brass Corbin tumbler lock No. 2, swing away dust cap, and provide two No. 2 keys. Equip the police door-in-door with a standard police lock and provide one key.

Electrically bond the door to the rest of the cabinet with a braided copper grounding conductor.

The length of the grounding conductor shall allow the door to swing fully open, without using the stop bar and without stretching or breaking the grounding conductor. The grounding conductor shall not interfere with normal door operation. Provide a door switch for the main cabinet door. When the door is opened, the switch shall send a signal to the controller sufficient for the controller to log an alarm.

B.1.3 Shelves and Mountings

Mount a minimum of three vertical "C" channels, compatible with Unistrut channel nuts, on each interior side wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. Install three vertical "C" channels or three slotted rails on the interior back wall of the cabinet. All mounting channels and rails shall extend to within 7 inches of the top and bottom of the cabinets and shall be of sufficient strength to rigidly hold specified shelves and equipment.

Provide two full-width, 11-inch-deep, fully adjustable, aluminum shelves to support the controller and other equipment. Mount the lower shelf at a height above the bottom of the cabinet such that the shelf and attached drawer does not interfere with the ability to tilt the terminal facility forward on its hinges for maintenance purposes. Mount the top shelf at least 13 inches above the surface of the lower shelf.

Locate the controller and MMU on the top shelf. Locate the loop detector racks and other auxiliary equipment on the lower shelf. The power supply may be mounted on either shelf. Provide an under-shelf drawer under the lower shelf. The drawer shall be approximately 20 inches wide and the full depth of the shelf. The drawer shall operate easily and smoothly and shall have a stop to prevent inadvertently pulling the drawer out of its support. Design the stop to allow purposeful and complete removal of the drawer without the use of tools.

B.1.4 Auxiliary Cabinet Equipment

Ventilate the cabinet by means of a 120 VAC, 60HZ, tube axial compact type fan located in the top of the cabinet plenum. The fan’s free delivery airflow shall be equal to or greater than 100 cubic feet per minute. The magnetic field of the fan motor shall not affect the performance of control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp, or have bearing failure within a seven-year duty cycle. The maximum noise level shall be less than 40 decibels. The fan unit shall be corrosion resistant. The thermostat's turn on setting shall be adjustable from 90 to 120°F. The fan shall run until the cabinet temperature decreases below the turn-on temperature setting by approximately 30°F. The fan shall be fused.

Mount an incandescent lamp and socket in the cabinet to sufficiently illuminate the field terminals. Wire the lamp to a 15-amp ON/OFF toggle switch mounted on the rear cover of the police panel as specified in the Cabinet Switches section of this Specification.

Provide a 250 watt element heater. Install the heater on the face of the aluminum, louvered air filter cover such that feed air is supplied through the cover. Provide a protective, ventilated cover over the heater. Provide a cord and twist-off plug to an electrical receptacle on the cabinet door.

Provide a thermostat with an adjustable setting from 0 to 100°F. Install the thermostat on the interior ceiling of the cabinet well away from the cabinet light or any heat source. Provide a thermal limit switch to prevent the heater’s protective cover from exceeding 170°F.

B.2 Terminals and Facilities

B.2.1 Terminal Facility

The terminal facility panel shall be constructed from 5052-H32 brushed aluminum of 0.125 inches minimum thickness and formed so as to eliminate any flexing when plug-in components are installed.

Mount the bottom of the terminal facility a minimum of 9 inches from the bottom of the cabinet. Hinge the terminal facility at the bottom to allow easy access with simple tools to all wiring on the rear of the panel. It shall not be necessary to remove the lower shelf, the shelf drawer, or any shelf-mounted equipment to hinge down the terminal facility. Provide sufficient slack in the load bay wiring to allow for dropping the load bay.

Fully wire the terminal facility with 16-load switch sockets: eight phases of vehicular, four phases of pedestrian, and four phases of overlap operation; eight flash transfer relay sockets; one flasher socket; and two terminal facility Bus Interface Unit (BIU) rack slots. The use of printed circuit boards is not acceptable on the terminal facility, but printed circuit boards are acceptable for the BIU interface with the load bay. Position the 16-load switch sockets in two horizontal rows of eight sockets each. Support the load switches and flasher by a bracket or shelf extending at least three 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 two each 16-channel, 8-position, TS2 detector racks, each with an integrally mounted BIU mounting. Racks shall be addressable. Power each detector rack by the cabinet power supply. Fasten the loop detector racks 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 Marathon 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 by 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.

B.3 Auxiliary Panels

B.3.1 Vehicle Detection Interface Panel

Provide a 32-position interface panel or two 16-position panels. Each interface panel shall allow for the connection of 32 or 16 independent field loops, respectively. The panels shall have barrier strip type terminals using 8 to 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.

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.

B.3.2 Intersection Lighting

Provide an intersection lighting control panel as described. The intersection lighting control panel shall consist of an aluminum panel 0.125 inches thick and approximately 5 inches by 10 inches. Determine the actual panel size by the cabinet's mounting rail placement. Attach to the panel a 2 pole, 30 amp contactor, 120vac coil (Square D #8910DPA32V02 or equal), and a heavy duty six position terminal block (Marathon DJ1606 or equal). Use wire sizes 10 AWG for power and load wiring and 16 AWG for control wires. Wire the terminal strip as follows:

a. Control coil

b. L1 in

c. L2 in

d. Neutral in and control coil

e. L1 out

f. L2 out

Protect each output by a MOV (V150LA20A) wired between the output and neutral. Include a photo control (Intermatic #K4021C or equal). Mount the photo control just above the cabinet door and approximately 12 inches from the right side of the cabinet. Wire the photo control to a 3 position terminal strip using 16 AWG wire color coded to match the photo control wiring connected to the intersection lighting control panel.

B.3.3 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 polyvinyl chloride (PVC) insulation without clear nylon jacket and rated to 105°C. All 12 AWG and larger wire shall be UL or NRTL listed THHN/THWN 90°C, 600 V, 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 enough 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 and 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 provide circuit integrity. Lap joint soldering is not acceptable.

B.3.4 Cabinet Switches

Locate the following switches on a maintenance panel on the inside of the cabinet door:

a. Controller On/Off

b. Cabinet Light

c. Stop Time (Three Position)

d. Manual Detector Switches (Three Position)

Position Switch Label Function

Upper Stop Time Place stop time on the controller

Center Run Remove the stop time input to the controller

Lower Normal Connects the MMU to the controller stop time input

Locate the following switches behind the police access door:

a. Signal/Off

b. Flash/Normal

c. Hand/ auto

d. Coiled hand control and cable

The above switches shall function as follows:

1. Off: Signals Dark
2. Signal: Signals On and operating as follows:
3. Auto Hand
4. Flash: Signals Flash Signals Flash
5. 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:

1. Position Function
2. Up Detector Disabled
3. Center Detector Enabled
4. Down Detector Called

B.4 Power Panel

B.4.1 Design

The power panel shall consist of a separate module, securely fastened to the interior right side wall of the cabinet. Wire the power panel to provide the necessary power to the cabinet, controller, MMU, cabinet power supply, and all auxiliary equipment. Manufacture the power panel from 0.090-inch, 5052-H32 aluminum. Panel layout shall facilitate field inspection and maintenance accessibility without excessive disassembly or special tools.

Provide a light, tough, transparent, weather-resistant, non-yellowing, thermoplastic cover, rigidly mounted over the full power panel, with access holes for circuit breakers and other equipment, and open on the sides for ventilation.

B.4.2 Bus Bar

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

B.5 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.

B.6 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 to 200 megohms dependent upon external conditions. The RIS shall be rated at minimum 50 amperes. Design the RIS for operation on 115 VAC ± 10%, 60HZ, singlephase circuits, and to meet the standards of UL or a NRTL and Radio Manufacturer's Association.

B.7 Bus Relay

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

B.8 Surge Protector

Install a plug-in type EDCO SHA-1250, Atlantic/Pacific, or approved equal, surge protector across the load terminal of the 10-amp circuit breaker. Install a varistor at the load terminals of the circuit breaker from the hot line to the grounded current carrying neutral conductor; varistor to meet controller manufacturer’s specifications.

B.9 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.

B.10 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.

B.11 Auxiliary Devices

B.11.1 Load Switches

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

B.11.2 Flashers

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

B.11.3 Flash Transfer Relays

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

B.11.4 Inductive Loop Detector Units

Provide 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.

B.11.5 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 light emitting diode (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.

B.12 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.

B.13 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.

The MMU shall be capable of the following:

1. Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don't Walk) on the same channel.
2. Determining if the field signal input states detected as active or inactive by the MMU correspond with the data provided by the Controller Unit.
3. Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.
4. Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected or permissive left and right turn movements).
5. 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.
6. 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.

B.13.1 Traffic Signal Controller

Provide a fully actuated, solid state, digital microprocessor based EPAC 3608M62 controller capable of providing the number and sequence of phases, overlaps, and any special logic as described herein. The controller unit shall meet and be operational for, the NEMA TS2 Standard, Section 3 Specifications for the Type 2 Actuated (A1) configuration. The controller unit shall be capable of being upgraded by only a firmware or software installation to meet and be operational for the NEMA TS2 Standard, Section 3 Specifications for the Type 2 Actuated/ NTCIP (A1N, Level 2) configuration.

B.13.2 TACTICS 3.1 (or greater)

Provide current version of Siemens controller remote Closed Loop system software capable of communicating with all of city's current controllers on their closed loop systems. This software shall include updates for up to one year upon installation. Software shall also include installation and setup on city's existing computers.

C Construction

Construct in general conformance with the relevant provisions of Standard Specification Section 675 and the manufacturer's recommendations.

D Measurement

The department will measure Traffic Signal Controller and Cabinet (location) at each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Traffic Signal Controller and Cabinet	EACH

Payment is full compensation for furnishing and installing the Traffic Signal Controller and Cabinet, for making all connections, and completing all required testing.

37. Video Detection System, CTH PP & Taylor Drive, Item SPV.0060.07.

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 including, but not limited to, cameras, processors, video monitor, mounting hardware, power cable, and coaxial cable. The system includes an Iteris Vantage Vector Hybrid camera.

B Materials

B.1 System Hardware

The video detection system (VDS) shall consist of up to four video cameras, a video detection processor (VDP) capable of processing from one to four video sources, either wired or wireless, wireless video transmission receiver, receiver antenna, and a pointing device.

B.2 System Software

The system shall include software that detects vehicles in multiple lanes using only the video image. Detection zones shall be defined using only an on-board video menu and a pointing device to place the zones on a video image. Up to 24 detection zones per camera view shall be available. A separate computer shall not be required to program the detection zones.

B.3 Functional Capabilities

B.3.1 System Configuration

The VDS will be deployed at locations where site conditions and roadway geometry vary. The VDS system may also be deployed at locations where existing cabinets or equipment exist. Existing site configurations will dictate the availability of cabinet space and VDS usage.

The proposed VDS shall be available in various configurations to allow maximum deployment flexibility. Each configuration shall have identical user interface for system setup and configuration. The communications protocol to each configuration shall be identical and shall be hardware platform independent. The proposed VDS shall have multiple configurations available for deployment.

Table 1. VDS Configuration

Description	No. Video Inputs	No. Video Outputs	Mounting Configuration	Power Supply Requirements
Single-Channel Rack Mounted	1	1	Rack Mount (Type 170 or NEMA TS-1, TS-2 Racks)	12/24 VDC Power From Rack
Dual-Channel Rack Mounted	2	1	Rack Mount (Type 170 or NEMA TS-1, TS-2 Racks)	12/24 VDC Power From Rack
Quad-Channel Rack Mounted	4	1	Rack Mount (Type 170 or NEMA TS-1, TS-2 Racks)	12/24 VDC Power From Rack

a. An option to have wireless video transmission between the camera sensor and VDP shall also be available from the VDS manufacturer.

b. Wired camera systems shall be able to transmit NTSC or PAL video signals, with minimal degradation, up to 1,000 feet under ideal conditions.

c. Wireless camera systems shall be able to transmit an NTSC video signal, with minimal signal degradation, up to 500 feet under normal conditions and up to 900 feet under ideal electromagnetic interference conditions. Adjacent sources of electromagnetic radiation, or the absence of a direct line of sight between transmitter and receiver antennas, may result in video signal degradation.

B.3.2 System Interfaces

The following interfaces shall be provided for each of the configurations identified in Table 1.

Video Input: Each video input shall accept RS170 (NTSC) or CCIR (PAL) signals from an external video source (camera sensor or VCR). The interface connector shall be BNC type and shall be located on the front of the video processing unit. The video input shall have the capability to select 75-ohm or high impedance (Hi-Z) termination.

Video Lock LED: A LED indicator shall be provided to indicate the presence of the video signal. The LED shall illuminate upon valid video synchronization and turn off when the presence of a valid video signal is removed.

Video Output: One video output shall be provided. The video output shall be RS170 or CCIR compliant and shall pass through the input video signal. For multi-channel video input configurations, a momentary push-button shall be provided on the front panel to toggle through each input video channel. In the absence of a valid video signal, the channel shall be skipped, and the next valid video signal shall be switched. The video output shall have the capability to show text and graphical overlays to aid in system setup. The overlays shall display real-time actuation of detection zones upon vehicle detection or presence. Overlays shall be able to be turned off by the user. Control of the overlays and video switching shall also be provided through the serial communications port. The video output interface connector shall be BNC type.

Serial Communications: A serial communications port shall be provided on the front panel. The serial port shall be compliant with EIA232 electrical interfaces and shall use a DB9 type connector. The serial communications interface shall allow the user to remotely configure the system and/or to extract calculated vehicle/roadway information. The interface protocol shall be documented, or interface software shall be provided. The interface protocol shall support multi-drop or point-to-multipoint communications. Each VDS shall have the capability to be addressable.

Contact Closure Output: Open collector contact closure outputs shall be provided. Four open collector outputs shall be provided for the single, dual, or quad channel rack-mount configuration. Additionally, the VDPs shall allow the use of extension modules to provide up to 24 open collector contact closures per camera input. Each open collector output shall be capable of sinking 30 mA at 24 VDC. The open collector output will be used for vehicle detection indicators as well as discrete outputs for alarm conditions.

Detection LEDs: LEDs shall be provided on the front panel. The LEDs shall illuminate when a contact closure output occurs. Rack-mounted video processors shall have a minimum of four LEDs. Rack-mounted extension modules shall have two or four LEDs to indicate detection.

Mouse Port: A USB mouse shall be provided on the front panel of the rack mount video processing unit. The mouse port shall not require special mouse software drivers. The mouse port shall be used as part of system setup and configuration. A mouse shall be provided with each video processor.

B.3.4 General System Functions

Detection zones shall be programmed via an on-board menu displayed on a video monitor and a pointing device connected to the VDP. The menu shall facilitate placement of detection zones and setting of zone parameters or to view system parameters. A separate computer shall not be required for programming detection zones or to view system operation.

The VDP shall store up to three different detection zone patterns. The VDP can switch to any one of the three different detection patterns within 1 second of user request via menu selection with the pointing device.

The VDP shall detect vehicles in real time as they travel across each detection zone.

The VDP shall have an EIA232 port for communications with an external computer. The VDP EIA232 port shall be multi-drop capable.

The VDP shall accept new detection patterns from an external computer through the EIA232 port when the external computer uses the correct communications protocol for downloading detection patterns. A Microsoft Windows-based software designed for local or remote connection and providing video capture, real-time detection indication and detection zone modification capability shall be provided with the system.

The VDP system shall have the capability to automatically switch to any one of the stored configurations based on the time of day which shall be programmable by the user.

The VDP shall send its detection patterns to an external computer through the EIA232 port when requested when the external computer uses the correct communications protocol for uploading detection patterns.

The VDP shall default to a safe condition, such as a constant call on each active detection channel, in the event of unacceptable interference with the video signal.

The system shall be capable of automatically detecting a low-visibility condition such as fog and respond by placing all defined detection zones in a constant call mode. A user-selected output shall be active during the low-visibility condition that can be used to modify the controller operation if connected to the appropriate controller input modifier(s). The system shall automatically revert to normal detection mode when the low-visibility condition no longer exists.

B.3.5 Vehicle Detection

Up to 24 detection zones per camera input shall be supported and each detection zone can be sized to suit the site and the desired vehicle detection region.

The VDP shall provide up to 24 open collector output channels per camera input using one or more extension modules.

A single detection zone shall be able to replace multiple inductive loops and the detection zones shall be OR'ed as the default or may be AND'ed together to indicate vehicle presence on a single phase of traffic movement.

Placement of detection zones shall be done by using only a pointing device, and a graphical interface built into the VDP and displayed on a video monitor, to draw the detection zones on the video image from each video camera. No separate computer shall be required to program the detection zones.

Up to three detection zone patterns shall be saved for each camera within the VDP memory. The VDP's memory shall be non-volatile to prevent data loss during power outages.

The selection of the detection zone pattern for current use shall be done through a menu. It shall be possible to activate a detection zone pattern from VDP memory and have that detection zone pattern displayed within 1 second of activation.

The VDP system shall have the capability to automatically switch to any one of the stored configurations based on the time of day which shall be programmable by the user.

When a vehicle is detected within a detection zone, the corners of the detection zone shall activate on the video overlay display to confirm the detection of the vehicle.

Detection shall be at least 98% accurate in good weather conditions, with slight degradation possible under adverse weather conditions (e.g. rain, snow, or fog), which reduce visibility. Detection accuracy is dependent upon site geometry, camera placement, camera quality and detection zone location, and these accuracy levels do not include allowances for occlusion or poor video due to camera location or quality.

The VDP shall provide dynamic zone reconfiguration (DZR). DZR enables normal operation of existing detection zones when one zone is being added or modified during the setup process. The VDP shall output a constant call on any detector channel corresponding to a zone being modified.

Detection zone setup shall not require site specific information such as latitude and longitude to be entered into the system.

The VDP shall process the video input from each camera at 30 frames per second. Multiple camera processors shall process all video inputs simultaneously.

The VDP shall output a constant call for each enabled detector output channel if a loss of video signal occurs. The VDP shall output a constant call during the background learning period.

Detection zone outputs shall be configurable to allow the selection of presence, pulse, extend, and delay outputs. Timing parameters of pulse, extend, and delay outputs shall be user definable between 0.1 to 25.0 seconds.

Up to six detection zones per camera view shall have the capability to count the number of vehicles detected. The count value shall be internally stored for later retrieval through the EIA232 port. The zone shall also have the capability to calculate and store average speed and lane occupancy at bin intervals of 10 seconds, 20 seconds, 1 minute, 5 minutes, 15 minutes, 30 minutes and 60 minutes.

B.4 Hardware

B.4.1 General

The VDP and extension module (EM) shall be specifically designed to mount in a standard detector rack, using the edge connector to obtain power and provide contact closure outputs. No adapters shall be required to mount the VDP or EM in a standard detector rack. Detector rack rewiring shall not be required.

The EM shall be available to avoid the need of rewiring the detector rack, by enabling the user to plug an extension module into the appropriate slot in the detector rack. The extension module shall be connected to the VDP by an 8 wire cable with modular connectors, and shall output contact closures according to user selectable channel assignments. The EM is available in 2, 4, or 24 channel configurations.

B.4.2 Input Power

The VDP and EM shall be powered by 12/24 volts DC. VDP power consumption shall not exceed 7 watts. The EM power consumption shall not exceed 2.5 watts.

B.4.3 Detection Outputs

The VDP and EM shall include detector output pin out compatibility with industry standard detector racks. The 24-channel EM shall provide output through a 37-pin “D” connector on the front panel.

B.4.4 Video Inputs

VDPs shall include one, two, or four BNC video input connections suitable for composite video inputs. The video input shall include a switch selectable 75-ohm or high impedance termination to allow camera video to be routed to other devices, as well as input to the VDP for vehicle detection.

B.4.5 Video Outputs

The front of the VDP shall include one BNC video output providing real time video output that can be routed to other devices.

B.4.6 Mechanical and Environmental

The VDP shall operate satisfactorily in a temperature range from -34°C to +74°C and a humidity range from 0%RH to 95%RH, non-condensing as set forth in NEMA specifications.

The front panel of the VDP shall have detector test switches to allow the user to place calls on each channel. The test switch shall be able to place either a constant call or a momentary call depending on the position of the switch.

The front face of the VDP shall contain indications, such as LED displays, to enable the user to view real time detections for each channel of detection when the system is operational.

The VDP shall include an EIA232 port for serial communications with a remote computer. This port shall be a 9-pin "D" subminiature connector on the front of the VDP.

The VDP shall utilize non-volatile memory technology to enable the loading of modified or enhanced software through the EIA232 port and without modifying the VDP hardware.

B.5 Video Detection Camera

Video detection cameras used for traffic detection shall be furnished by the video detection processor (VDP) supplier and shall be qualified by the supplier to ensure proper system operation.

The camera shall produce a useable video image of the bodies of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera shall produce a useable video image shall be the minimum range from nighttime to daytime, but not less than the range 1.0 lux to 10,000 lux.

The imager luminance signal to noise ratio (S/N) shall be more than 50 dB.

The camera shall be digital signal processor (DSP) based and shall use a CCD sensing element and shall output color video with resolution of not less than 470 TV lines. The CCD imager shall have a minimum effective area of 768(h) x 494(v) pixels.

The camera shall include an electronic shutter control based upon average scene luminance and shall be equipped with an auto-iris lens that operates in tandem with the electronic shutter.

The camera shall utilize automatic white balance.

The camera shall include a variable focal length lens with variable focus that can be adjusted, without opening up the camera housing, to suit the site geometry by means of a portable interface device designed for that purpose and manufactured by the detection system supplier.

The horizontal field of view shall be adjustable from 5.4 to 50.7 degrees. This camera configuration may be used for the majority of detection approaches in order to minimize the setup time and spares required by the user. The lens shall be a 10x zoom lens with a focal length of 3.8mm to 38.0 mm.

The lens shall also have an auto-focus feature with a manual override to facilitate ease of setup.

The camera shall incorporate the use of preset positioning that store zoom and focus positioning information. The camera shall have the capability to recall the previously stored preset upon application of power.

The camera electronics shall include automatic gain control (AGC) to produce a satisfactory image at night.

The camera shall be housed in a weather-tight sealed enclosure. The enclosure shall be made of 6061 anodized aluminum. The housing shall be field rotatable to allow proper alignment between the camera and the traveled road surface.

The camera enclosure shall be equipped with a sunshield. The sunshield shall include a provision for water diversion to prevent water from flowing in the camera's field of view. The camera enclosure with sunshield shall be less than 6-inch diameter, less than 18 inches long, and shall weigh less than 6 pounds when the camera and lens are mounted inside the enclosure.

The enclosure shall be design so that the pan, tilt, and rotation of the camera assembly can be accomplished independently without affecting the other settings.

The camera enclosure shall include a proportionally controlled heater, where the output power of the heater varies with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure.

The glass face on the front of the enclosure shall have an anti-reflective coating to minimize light and image reflections.

The glass face shall also employ a special coating to minimize the buildup of environmental debris such as dirt and water.

When mounted outdoors in the enclosure, the camera shall operate satisfactorily in a temperature range from -34°C to +60°C and a humidity range from 0% RH to 100% RH. Measurement of satisfactory video shall be based upon VDP system operation.

The camera shall be powered by 120-240 VAC 50/60 Hz. Power consumption shall be 45 watts or less under all conditions. An optional DC power configuration shall be available for 12 VDC operation.

Recommended camera placement height shall be 33 feet (or 10 meters) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection, the camera should be centered above the traveled roadway. The camera shall view approaching vehicles at a distance not to exceed 350 feet for reliable detection (height to distance ratio of 10:100). Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

The camera enclosure shall be equipped with separate, weather-tight connections for power and video cables at the rear of the enclosure. These connections may also allow diagnostic testing and viewing of video at the camera while the camera is installed on a mast arm or pole using a lens adjustment module (LAM) supplied by the VDP supplier. Video and power shall not reside within the same connector.

The video signal shall be fully isolated from the camera enclosure and power cabling.

B.6 Video Monitor

The monitor shall be a flat screen color video monitor with a minimum 9-inch diagonal picture display. It shall support EIA standards RS-170 composite video signal (1.0 v p-p, 75 OHM).

It shall have a resolution of 900 lines at center. Video bandwidth shall be >11 MHz. Loop through connectors shall be provided, and both input and output connectors shall be BNCs.

The monitor power source shall be 120 VAC ± 10%, 60 Hz. Power consumption shall not be greater than 18 W. Ambient operating temperature shall be +50 to +122°F.

Located on the front panel, the controls shall be on/off, contrast, bright, vertical hold, and horizontal hold. Rear panel shall have controls for vertical size, vertical linearity, and scan switch.

Dimensions shall not exceed 9-inch width, 10-inch height, and 7-inch diameter. Weight shall not exceed 10 pounds.

B.7 Coaxial Cable

The coaxial cable to be used between the camera and the VDP in the traffic cabinet shall be Belden 8281. This cable shall be suitable for installation in conduit or overhead with appropriate span wire. BNC plug connectors should be used at both the camera and cabinet ends. The coaxial cable, BNC connector, and crimping tool shall be approved by the supplier of the video detection system, and the manufacturer's instructions must be followed to ensure proper connection.

B.8 Power Cable

The power cabling shall be 16 AWG three conductor cable with a minimum outside diameter of 0.325 inch and a maximum diameter of 0.490 inch. The cabling shall comply with the NEC, as well as local electrical codes. Cameras may acquire power from the luminaire, if necessary.

B.9 Warranty

The supplier shall provide a limited three-year warranty on the video detection system.

During the warranty period, technical support shall be available from the supplier via telephone within four hours of the time a call is made by a user, and this support shall be available from factory-certified personnel or factory-certified installers.

During the warranty period, updates to VDP software shall be available from the supplier without charge.

B.10 Maintenance and Support

Installation or training support shall be provided by a factory-authorized representative and shall be a minimum IMSA-Level II Traffic Signal Technician certified.

All product documentation shall be written in the English language.

C Construction

Install the video detection system at the location shown on the plans according to the manufacturer’s installation guidelines.

D Measurement

The department will measure Video Detection System (location), by each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Video Detection System, CTH PP & Taylor Drive	EACH

Payment is full compensation for furnishing and installing the materials; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

38. Emergency Vehicle Preemption System, CTH PP & Taylor Drive, Item SPV.0060.08.

A Description

This special provision describes furnishing and installing an Emergency Vehicle Preemption System.

B Materials

B.1 Infrared Detector

The detector shall change the infrared signal to an electrical signal. It shall be located at or near the intersection. It shall send the electrical signal, via the detector cable, to the phase selector. It shall be an Opticom 711.

The required detector will be a lightweight, weatherproof device capable of sensing and transforming pulsed infrared energy into electrical signals for use by the phase selection equipment.

The infrared detector will be designed for mounting at or near an intersection on mast arms, pedestals, pipes, or span wires.

Each infrared detector will be supplied with mounting hardware to accommodate installation on mast arms. Additional hardware will be available for span wire installations. Additional hardware may be needed.

The infrared detector design will include adjustable tubes that lock into position to enable their reorientation for span wire mounting without disassembly of the unit.

The detector will accept infrared signals from one or two directions and will provide single or dual electrical output signal(s).

The infrared detector will be available in three configurations:

1. Uni-directional with one output channel.
2. Bi-directional with one output channel.
3. Bi-directional with two output channels.

The detector will allow aiming of the two infrared sensing inputs for skewed approaches, wide roads, or slight curves.

The infrared detector will have a built-in, labeled terminal block to simplify wiring connections.

The infrared detector will receive power from the phase selector and will have internal voltage regulation to operate at 24 volts DC.

The infrared detector will respond to a clear lens data-encoded emitter with 0.84 (±10%) Joules of energy output per flash at a distance of 2,500 feet (762m) under clear atmospheric conditions. If the emitter is configured with a visible light filter, the detector will respond at a distance of 1800 feet (549m) under clear atmospheric conditions. The noted distances will be comparable day and night.

The infrared detector will deliver the necessary electrical signal to the phase selector via a detector cable up to 1,000 feet (305m) in length.

B.2 Detector Cable

The detector cable will carry the electrical signal from the detector to the phase selector.

The detector cable will deliver sufficient power from the phase selector to the infrared detector and will deliver the necessary quality signal from the detector to the phase selector over a non-spliced distance of 1,000 feet (305m).

The cable will be of durable construction to satisfy the following installation methods:

1. Direct burial.
2. Conduit and mast arm pull.
3. Exposed overhead (supported by messenger wire).

The outside diameter of the detector cable will not exceed 0.3 inches (7.62mm).

The insulation rating of the detector cable will be 600 volts minimum.

The temperature rating of the detector cable will be +158°F (+70°C) minimum.

The conductors will be shielded with aluminized polyester and have an AWG #20 (7 x 28) stranded and individually tinned drain wire to provide signal integrity and transient protection.

The shield wrapping will have a 20% overlap to provide shield integrity following conduit and mast arm pulls.

The detector cable will be comprised of three signal wires and a drain wire. Each wire will be 20 AWG (7 x 28). The capacitance will not exceed 48 pF per foot a 1 Khz. The detector cable wires will be stranded, individually tinned copper, color-coded insulation as follows:

1. Orange for delivery of detector power (+).
2. Drain wire for detector power return (-).
3. Yellow for detector signal #1.
4. Blue for detector signal #2 or ground, depending on model of detector being used.

B.3 Phase Selector

The phase selector will accommodate data-encoded communication and will validate, identify, classify, and record the signal from the detector. It will be located within the controller cabinet at the intersection. It will request the controller to provide priority to the requesting vehicle and/or record presence of a probe vehicle. Shall be an Opticom 764.

The phase selector, designed to be installed in the traffic controller cabinet, will accommodate data-encoded signals and is intended for use directly with numerous controllers. These include California/New York Type 170 controllers with compatible software, NEMA controllers, or other controllers along with the system card rack and suitable system interface equipment and controller software.

The phase selector will be a plug-in, two or four channel, multiple-priority device intended to be installed directly into a card rack located within the controller cabinet.

The phase selector will be powered from 115 volt (95 volts AC to 135 volts AC), 60 Hz mains and will contain an internal, regulated power supply that supports up to twelve infrared detectors.

Programming the phase selector and retrieving the data stored in it will be accomplished using a Windows™ computer and the system interface software. The connection can be made either directly, via the computer's communication (COM) port, or remotely via a modem. The communication port on the phase selector will be an RS232 interface located on the front and back of the unit. The communication protocol will be made available upon request for creating software to implement other communication applications.

The phase selector will include the ability to directly sense the green traffic controller signal indications through the use of dedicated sensing circuits and wires connected directly the field wire termination points in the traffic controller cabinet.

The phase selector will have the capability of storing up to 1,000 of the most recent priority control calls, probe frequency passages, or unauthorized vehicle occurrences. When the log is full, the phase selector will drop the oldest entry to accommodate the new entry. The phase selector will store the record in non-volatile memory and will retain the record if power terminates. Each record entry will include 10 points of information about the priority call, as follows:

1. Classification: Indicates the type of vehicle.
2. Identification number: Indicates the unique identification (ID) number of the vehicle.
3. Priority level: Indicates whether High or Low Priority or Probe frequency is requested by the vehicle.
4. Direction–Channel A, B, C, or D: Indicates the vehicle's direction of travel.
5. Call duration: Indicates the total time in seconds the priority status is active.
6. Final greens at end of call: Indicates which phases are green at the end of the call.
7. Duration of the final greens: Indicates the total time final greens were active at the end of call.
8. Time and date call started and ended: Indicates the time a priority call started and ended; provided in seconds, minutes, hours, day, month, and year.
9. Maximum signal intensity: Indicates the strongest signal intensity measured by the phase selector during call.
10. Priority output active: Indicates if the phase selector requested priority from the controller for the call.

The phase selector will include several control timers that will limit or modify the duration of a priority control condition, by channel, and can be programmed from a Windows™ computer. The control timers will be as follows:

1. MAX CALL TIME: Will set the maximum time a channel is allowed to be active. It will be settable from 60 to 65,535 seconds in one-second increments.
2. CALL HOLD TIME: Will set the time a call is held on a channel after the priority signal is no longer being received. It will be settable from one to 255 seconds in one-second increments. Its factory default must be six seconds.
3. CALL DELAY TIME: Will set the time a call must be recognized before the phase selector activates the corresponding output. It will be settable from zero to 255 seconds in one-second increments. Its factory default must be zero seconds.

The phase selector's default values will be re-settable by the operator using an IBM PC-compatible computer, or manually using switches located on its front.

The phase selector will be capable of three levels of discrimination of data-encoded infrared signals, as follows:

1. Verification of the presence of the base infrared signal of either High Priority, Low Priority or Probe frequency.
2. Validation of the infrared signal data-encoded pulses.
3. Determination of when the vehicle is within the prescribed range.

The phase selector's card edge connector will include primary infrared detector inputs and power outputs. Two additional detector inputs per channel will be provided on a front panel connector.

The phase selector will include one opto-isolated NPN output per channel that provides the following electrical signal to the appropriate pin on the card edge connector:

1. 6.25Hz ± 0.1Hz 50% on/duty square wave in response to a Low Priority call.
2. A steady ON in response to a High Priority call.

The phase selector will accommodate three methods for setting intensity thresholds (emitter range) for High and Low Priority signals:

1. Using a data-encoded emitter with range-setting capability.
2. Using any encoded emitter by manipulating the front panel switches.
3. Inputting the range requirements via the communication port.

The intensity threshold will have 1,200 set points. There will be separate intensity thresholds for the primary detector and the auxiliary detectors.

The phase selector will have a POWER ON LED indicator that flashes to indicate unit diagnostic mode and illuminates steadily to indicate proper operation.

The phase selector will have internal diagnostics to test for proper operation. If a fault is detected, the phase selector will use the front panel LED indicators to display fault information.

The phase selector will have a High (High) and Low (Low) solid state LED indicator for each channel to display active calls.

The phase selector will have a test switch for each channel to test proper operation of High or Low Priority.

The phase selector will properly identify a High Priority call with the presence of 10 other Low Priority data-encoded emitter signals being received simultaneously on the same channel.

The phase selector will have write-on pads to allow identification of the phase and channel.

The phase selector will have the capability to enter unique names for each channel viathe interface software.

The phase selector will provide one isolated confirmation light control output per channel. These outputs are user configurable through software for a variety of confirmation light sequences.

The NEMA model of the phase selector will have outputs for the control of NEMA controllers that lack internal preemption capability. This function will be accomplished through the use of Manual Control Enable, Interval Advance, and Phase Omit options.

The NEMA model will also have the option of providing separate outputs for High and Low Priority calls for controllers that do not recognize a 6.25 Hz pulsed Low Priority request.

The NEMA model of the phase selector shall have the capability to set Interval Advance rates as low as once every 200 mSec for Low Priority calls. It shall also be able to operate in the Manual Control Enable Mode for Low Priority calls and activate a standard preemption output for High Priority calls.

The phase selector will have the capability of recording the presence of a vehicle transmitting at the specified Probe frequency. The phase selector will at no time attempt to modify the intersection operation in response to the Probe frequency.

The phase selector will have the capability of providing Low Priority in a mode where the output to the controller is gated or controlled by timing relationships within the controller cycle.

The phase selector will have the capability to assign a relative priority to a call request within High or Low Priority. This assignment will be based on the received vehicle class.

The phase selector will have the capability to discriminate between individual ID codes and allow or deny a call output to the controller based on this information.

The phase selector will have the capability to log call requests by unauthorized vehicles.

The phase selector will have the ability to command an emitter to relay a received code to the next intersection.

The phase selector will have the capability of functionally testing connected detector circuits and indicating via front panel LEDs non-functional detector circuits.

The phase selector will incorporate a precision real time clock synchronized AC power line frequency.

The clock will have the capability to automatically adjust itself for changes in daylight saving time. Interface software will be used to set the clock and to input the appropriate dates and times for daylight saving changes.

The phase selector shall have the capability to set the minimum time between Low Priority calls.

An auxiliary interface panel will be available to facilitate interconnections between the phase selector and traffic cabinet wiring.

B.4 Card Rack

The card rack will provide simplified installation of a phase selector into controller cabinets that do not already have a suitable card rack. It shall be an Opticom 760.

The card rack will be factory wired to one connector, located behind the card slot, and a terminal block, located next to the phase selector slot, on the front of the card rack.

The card rack connector on the front will provide for all connections to the traffic controller.

The card rack will provide labeled terminal blocks for connecting the primary infrared detectors to a phase selector.

C Construction

Install the card rack and phase selector inside the cabinet according to the manufacturer’s installation requirements.

Install detectors on monotube arms as shown on the plans. Set initial aim according to manufacturer’s installation requirements. Final adjustment shall be as directed by the City of Sheboygan. Contact Mike Wilmas at (920) 459-3444 to schedule the final adjustment. Install detector cable according to manufacturer’s installation requirements.

D Measurement

The department will measure each Emergency Vehicle Preemption System (location) by 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.0060.08	Emergency Vehicle Preemption System, CTH PP & Taylor Drive	Each

Payment is full compensation for furnishing and installing all equipment, cabling, necessary additional items, testing and setting up the system.

39. Light Pole Concrete Base Type A, Item SPV.0060.09.

A Description

This special provision describes furnishing and installing Light Pole Concrete Bases according to standard spec 654, and as hereinafter provided.

B Materials

Provide Concrete Bases Type 5 with the following modifications:

Bolt circle shall be 9.25 inches.

Anchor bolts shall be 3/4-inch diameter, 105 ksi.

Anchor rod projection shall be 3.25 inches.

Verify anchor bolts, pattern, and installation requirements with light pole manufacturer.

C (Vacant)

D Measurement

The department will measure Light Pole Concrete Base Type A as each individual light pole base, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Light Pole Concrete Base Type A	EACH

Payment is full compensation conforming to standard spec 654.

40. Light Pole Concrete Base Type B, Item SPV.0060.10.

A Description

This special provision describes furnishing and installing Light Pole Concrete Bases according to standard spec 654, and as hereinafter provided.

B Materials

Provide Concrete Bases Type 5 with the following modifications:

Anchor rod projection shall be 4.13 inches.

Verify anchor bolts, pattern, and installation requirements with light pole manufacturer.

C (Vacant)

D Measurement

The department will measure Light Pole Concrete Base Type B as each individual light pole base, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Light Pole Concrete Base Type B	EACH

Payment is full compensation conforming to standard spec 654.

41. Path Lighting Assembly 14-Foot Pole, Item SPV.0060.11.

A Description

This special provision describes furnishing and installing path light poles, nut covers, light fixtures, and appurtenances as shown on the plans and described herein.

B Materials

Provide path lighting assembly, as shown in the plans and specified herein. The lighting assembly, including integral arm, shall be manufactured by Gardco Lighting/Valmont Industries, Inc. Gardco Model GL13-1-2-70LA-6435-NW-UNV-BLP fixture and Valmont Model R130830504T4 D1 335 IC-VBDR pole. Fixture wattage, voltage, color and accessories shall be coordinated with City of Sheboygan personnel. Gardco/Valmont is represented by Spectrum Lighting and Controls. Contact Steve Jahnz at (262) 522-0961.

Gardco fixture: Gullwing 13, 70 watt, LED lamps, universal voltage (120-277 volt), 1 phase, black powder coat finish, Type II lighting distribution. Valmont pole: round aluminum, of designated height, with top cap, 5-inch diameter at base, 3-inch diameter at top, black anodized finish, handhole 90 degrees from fixture orientation, nut covers, anchor bolts, and anchor base. Coordinate light fixture pole mounting requirements with manufacturer and provide an adapter plate, if necessary.

Provide fixture with three #12, single conductor, stranded copper, RHW/USE insulated, rated 600Volt, AC conductors in the pole from the fixture head to the pole handhole with an additional 18 inches of slack wire at handhole.

C (Vacant)

D Measurement

The department will measure Path Lighting Assembly 14-Foot Pole as each individual 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.0060.11	Path Lighting Assembly 14-Foot Pole	EACH

Payment is full compensation for providing and installing all materials including hardware, fittings, mounting devices, wire, and attachments necessary to completely install the path lighting assembly.

42. Road Lighting Assembly 30-Foot Pole, Item SPV.0060.12.

A Description

This special provision describes furnishing and installing roadway light poles, nut covers, light fixtures, and appurtenances as shown on the plans and described herein.

B Materials

Provide road lighting assembly, as shown in the plans and specified herein. The lighting assembly including integral arm shall be manufactured by Gardco Lighting/Valmont Industries, Inc. Gardco Model GL18-1-2-50LA-4835-NW-UNV-BLP-RPA2 fixture and Valmont Model R290845806T4 D1 335 IC-VBDR. Fixture wattage, voltage, color and accessories shall be coordinated with City of Sheboygan personnel. Gardco/Valmont is represented by Spectrum Lighting and Controls. Contact Steve Jahnz at (262) 522-0961.

Gardco fixture: Gullwing 18, 50 watt, LED lamps, universal voltage (120-277 volt) 1 phase, black powder coat finish, Type II lighting distribution. Valmont pole: round aluminum, of designated height, with top cap, 8-inch diameter at base, 4.5-inch diameter at top, black anodized finish, handhole 90 degrees from fixture orientation, nut covers, anchor bolts, and anchor base.

Provide fixture with three #12, single conductor, stranded copper, RHW/USE insulated, rated 600Volt, AC conductors in the pole from the fixture head to the pole handhole with an additional 18 inches of slack wire at handhole.

C (Vacant)

D Measurement

The department will measure Road Lighting Assembly 30-Foot Pole as each individual 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.0060.12	Road Lighting Assembly 30-Foot Pole	EACH

Payment is full compensation for providing and installing all materials including hardware, fittings, mounting devices, wire, and attachments necessary to completely install the roadway lighting assembly.

43. Salvage and Relocate Existing Path Light Pole, Item SPV.0060.13.

A Description

This special provision describes the removal, storage, and relocating of existing path lighting assemblies from their concrete bases and reinstalling them onto new concrete bases as shown on the plan and described herein.

B (Vacant)

C Construction

Remove, handle, store, and transport existing path lighting assemblies in a manner that prevents damage to them. If the contractor damages the existing path lighting unit through its own operations, then the contractor shall replace them at no expense to the department.

Remove the concrete base and all electrical wire associated with the removed lighting assembly.

Reinstall the lighting assembly on a new concrete base where shown on the plans. Provide new fusing within the existing pole. All work and materials shall be provided according to standard spec 659.

D Measurement

The department will measure Salvage and Relocate Existing Path Light Pole as each individual salvaged and relocated 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.0060.13	Salvage and Relocate Existing Path Light Pole	EACH

Payment for this item of work shall be the unit bid price for all the removing, storing, transport, reinstallation of existing path lighting assembly, and modifications to wire and conduit as shown on plans.

44. Intercept Existing Conduit, Item SPV.0060.14.

A Description

This special provision describes removing existing lighting wire from existing source, cutting off existing conduit, and connecting to new conduit.

B (Vacant)

C Construction

Expose the existing electrical conduit. Cut and remove existing conduit to a location that meets proposed conduit route and prepare for reconnection to new conduit. Remove all existing lighting wire from existing conduit back to source or destination. Reconnect existing conduit to new conduit where shown on the plans. Path lighting along South Taylor Drive shall remain energized throughout construction. Protect existing circuit to maintain power to existing path lighting along South Taylor Drive until ready to intercept existing conduit.

D Measurement

The department will measure Intercept Existing Conduit as each intercept existing conduit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.14	Intercept Existing Conduit	EACH

Payment is full compensation for excavating, removing existing materials, and furnishing and installing all materials necessary to intercept existing conduit and reconnect it to the new conduit system.

45. Cleaning and Painting Bearings, Item SPV.0060.15.

A Description

This special provision describes cleaning and painting the existing steel bearings on structures conforming to standard spec 517 and as directed by the engineer.

B Materials

Furnish a complete epoxy coating system from the department's approved product list. Use the same coating system for all repairs due to handling, shipping, and erecting, and for all other uncoated areas. The color of epoxy shall be AMS Standard Color No. 26293 (Light Gray) and the urethane coating material shall match the color number shown on the plans conforming to AMS Standard 595A, as printed in 2014. Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the minimum drying time for shop or field applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

C Construction

C.1 Surface Preparation

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

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

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

C.2 Coating Application

Apply paint in a neat, workmanlike manner, and conforming to the manufacturer's instructions and recommendations. Paint application shall be brushed on.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.15	Cleaning and Painting Bearings	EACH

Payment for Cleaning and Painting Bearings is full compensation for preparing and cleaning the designated bearings; furnishing and applying the paint; cleaning up; and containing and collecting all waste materials.

46. Steel Expansion Joint Cover Plate Repairs, Item SPV.0060.16.

A Description

This special provision describes furnishing and installing material for repairing corroded steel expansion joint cover plates at the median at the west and east abutments of Structure B-59-0048.

B Materials

Conform to standard spec 506 and the plans.

C Construction

Conform to standard spec 506 and the plans.

D Measurement

The department will measure the Steel Expansion Joint Cover Plate Repairs as each, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.16	Steel Expansion Joint Cover Plate Repairs	EACH

Payment is full compensation for completing the repairs as detailed on the drawings at each repair location.

47. Adjusting Sanitary Manholes, Item SPV.0060.17.

A Description

This special provision describes the removal and replacement of the existing sanitary sewer structure castings and rings according to the applicable provisions of standard spec 611 and as indicated in the drawings.

B Materials

Furnish all materials according to the City of Sheboygan Department of Public Works Technical Standards Right of Way Excavation.

C Construction

Adjust existing castings, including frames and grates or lids, to the required elevation and alignment. Remove the existing cover and adjustment rings. Dispose of existing concrete adjustment rings.

Install new concrete adjustment rings and reinstall the cover as shown on the drawings.

Reuse of the existing casting is permitted unless otherwise directed by the engineer. If a new cover is required, it will be paid for separately.

Adjustment ring heights exceeding 9 inches will not be allowed. Notify the engineer of adjustment exceeding 9 inches.

D Measurement

The department will measure Adjusting Sanitary Manholes as each manhole 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.0060.17	Adjusting Sanitary Manholes	EACH

Payment is full compensation for removing castings; for removing and disposing of existing adjustment rings; for new concrete adjustment rings; for replacing the castings at the proposed elevation as indicated on the drawings; for excavation, backfilling, and compaction; for disposal of surplus excavated material; for protection and support of existing utilities; and for cleanup.

48. Reconstruct Existing Sanitary Sewer Structure SPV.0060.18.

A Description

Work under this item includes the removal and replacement of cone section, barrel section, and adjusting rings according to the applicable provisions of standard spec 611 and as indicated in the drawings.

B Materials

Furnish all materials according to the City of Sheboygan Department of Public Works Technical Standards Right-of-Way Excavation

C Construction

Remove and replace existing adjustment rings, casting, concrete top section, and barrel sections as necessary to reach the final proposed alignment and grade on the plans. Adjustment ring heights exceeding 9 inches will not be allowed.

D Measurement

The department will measure Reconstruct Existing Sanitary Sewer Structure as each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.18	Reconstruct Existing Sanitary Sewer	EACH

Payment is full compensation removing and replacing the necessary sections of the sanitary sewer manhole and rebuilding the structure as indicated on the plans; for excavation, dewatering, backfilling with granular backfill, compaction, bracing and shoring; for disposal of surplus excavated material and existing manhole sections, protection and support of existing utilities, and cleanup.

49. 4-Foot Sanitary Sewer Manhole SPV.0060.19.

A Description

This section describes removing existing sanitary manholes, and constructing new manholes made of concrete with necessary reinforcement, metal castings, including required excavating and backfilling.

B Materials

Furnish materials conforming to the following standard specifications:

1. Concrete–501
2. Mortar–519.2.3
2. Reinforcement–505
4. Structural steel–506.2.2
5. Miscellaneous metals–506.2.3
6. Trench backfill–608.2

For precast structures conform to AASHTO M199 for circular structures. Manufacture in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO materials requirements for the structure specified, except as follows:

1. Use concrete with 565 pounds or more cementitious material per cubic yard.
2. The contractor may use cement conforming to standard spec 501.2.1 or may substitute for portland cement at the time of batching conforming to standard spec 501.2.6 for fly ash, standard spec 501.2.7 for slag, or standard spec 501.2.8 for other pozzolans. In either case, the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.
3. For wet cast use air-entrained concrete with 7.0 percent +/- 1.5 percent air content.

Manhole casting shall be Neenah R-1550 manhole casting with machined frame, Type-B solid non-rocking lid, concealed pick holes, and self-sealing gaskets.

Steps shall be installed in all sewer manholes by the manufacturer and shall be cast iron conforming to ASTM A48 or steel reinforced plastic conforming to ASTM A615, Grade 60 and ASTM D4101. Manhole steps shall be spaced 16 inches on center. Steps shall be embedded into the riser or conical top section wall a minimum of 3 inches.

C Construction

C.1 Applicable Specifications

Perform all sanitary sewer system construction in conformance to the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition).

Excavate and backfill as specified for excavation for structures in standard spec 206, except use trench backfill.

Remove and dispose of the existing manhole structure where the new 4-foot sanitary sewer manhole will replace the existing structure.

Secure grade riser rings and adjustment rings with mortar, engineer-approved mastic, or using the manufacturer's recommended method. Do not dry stack adjustment rings

Set castings on full mortar beds except as specified for placing concrete in standard spec 415.3.6.1, or secure otherwise as the plans show. Fit or secure the lids to the castings to eliminate rocking or chattering.

Set the casting and lids accurately so the complete installation is at the correct elevation required to fit the adjoining surfaces. If installed in concrete surfaces, set the frames or castings, and grout as necessary, as specified in standard spec 415.3.6.1. Make sure lids are not in place while striking off and finishing the adjoining concrete.

Set casting located in pavement areas so that they comply with the surface requirements specified in 450.3.2.9. Place a 6-foot straightedge over the centerline of each casting parallel to the direction of traffic at the completion of the paving. Make a measurement at each side of the casting and average the two measurements. If this average is greater than 5/8 inch, reset the frame to the correct plane and elevation. If this average is 5/8 inch or less but greater than 3/8 inch, the department will allow the casting to remain in place.

If the casting is higher than the adjacent pavement, then make the two measurements at each end of the straightedge and average them.

Manhole connections for sanitary sewer mains shall be made using flexible, watertight connections, PSX Press Seal, Kor-N-Seal, A-LOK, or equal.

Manhole bottoms for sanitary sewer shall be monolithically precast with the bottom section.

Replace existing sanitary sewer as necessary to install the manhole. The sanitary sewer pipe will be paid under the Sanitary Sewer Pipe bid item.

D Measurement

The department will measure 4-Foot Sanitary Manhole as each individual manhole, 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.0060.19	4-Foot Sanitary Manhole	EACH

Payment is full compensation removing and replacing sanitary manhole as indicated on the plans; for excavation, dewatering, backfilling with granular backfill, compaction, bracing and shoring; for disposal of existing manhole, bypass pumping, protection and support of existing utilities, and cleanup.

50. Remove and Reset Decorative Boulders, Item SPV.0060.20.

A Description

This special provision describes removal, salvage, and resetting of decorative boulders.

B (Vacant)

C Construction

Remove, handle, store, and transport decorative boulders in a manner that prevents damage to them. If the contractor damages the decorative boulders through their own operations, then the contractor shall replace them at no expense to the department.

Coordinate with the engineer to determine final resetting location of decorative boulders.

D Measurement

The department will measure Remove and Reset Decorative Boulders as each individual boulder removed and reset, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.20	Remove and Reset Decorative Boulders	EACH

Payment is full compensation for removing the decorative boulders, properly storing the decorative boulders, and for resetting the decorative boulders

51. 12-Inch Gate Valve and Valve Box, Item SPV.0060.21: 6-Inch Gate Valve and Valve Box, Item SPV.0060.22.

A Description

Furnish and install Gate Valve and Valve Box according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition), as shown on the drawings, and hereinafter provided.

B Materials

Gate valves shall conform to the latest revision of AWWA C509 (resilient-seated) or AWWA C515 (ductile body resilient-seated).

When gate valves are specified in sizes 4 inches through 12 inches, they shall be of the resilient-seated type and in conformance with the following specific additional requirements:

1. Valves shall be intended for direct burial in an essentially vertical position in horizontal pipelines and be of the non-rising stem design, with O-ring stem seals, standard size (2 inch) wrench nut, and opening left (counterclockwise).
2. Valve ends shall be mechanical joint, unless otherwise specified, complete with standard joint accessories conforming to the latest revision of ANSI/AWWA C111/A21.11, except that the MJ bolts and nuts shall be the high-strength, low-alloy steel, and that gaskets shall not be lead-tipped.

3. Gland and bonnet bolting materials shall be 304 stainless steel, factory installed prior to testing.
4. Internal and external surfaces of the valve body and bonnet shall be epoxy coated, according to the latest revision of AWWA C550.

12-inch valves and less shall be the resilient-seated type. In areas of less than 6 feet of cover, engineer may require the butterfly type. Valves larger than 12 inches shall be butterfly, unless otherwise specified.

Unless otherwise specified, butterfly valves shall be of the mechanical joint body type and have a pressure rating of not less than Class 150B. Valves shall open left (counterclockwise).

Mechanical joint valves shall be complete with standard joint accessories conforming to the latest revision of ANSI/AWWA C111/A21.11, except that the mechanical-joint bolts and nuts shall be the high-strength, low-alloy steel, and that gaskets shall not be lead-tipped.

Bolting materials shall be coated with a non-sticky, non-brittle petroleum asphaltic coating by contractor prior to installation, if not already coated by supplier with a similar corrosion-inhibiting material.

C Construction

Support valves in vertical positions on solid concrete block or concrete support. If wood blocking and shims are used, they shall be hardwood. Loose and soft ground shall be removed and replaced with stone and blocking of size sufficient to provide stable and unsettling support.

Valve boxes for use with gate valves and air release assemblies shall be three-piece, Tyler Series 6860, with base section as required for valve size.

In areas where valve boxes will be adjusted at the time of future roadway construction, as indicated by the future grade line shown on the drawings, valve box length shall be as required, when possible, to allow the box to be adjusted to the future grade without adding, removing, or replacing box sections. In other areas, valve box length shall be as required to allow nearly equal adjustment in either direction from the installed elevation.

Top sections and risers which are less than 10 inches in length are not allowed.

D Measurement

The department will measure (Size) Gate Valve and Valve Box by each, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.21	12-Inch Gate Valve and Valve Box	EACH
SPV.0060.22	6-Inch Gate Valve and Valve Box	EACH

Payment is full compensation for installation of the gate valve, valve box, and valve box adaptor; all excavation and disposal of excavated material, except for rock excavation; sawing and breaking pavement; forming foundation; replacing unstable foundation materials; sheeting, shoring, and bracing; dewatering; backfilling, and compacting; providing and compacting stone bedding, cover material, and granular backfill; trench maintenance; restraint; polyethylene wrap; tracer wire; all testing; and restoring the site of the work.

52. Fire Hydrant Assembly, Item SPV.0060.23.

A Description

Furnish and install Fire Hydrant Assembly according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition), as shown on the drawings, and hereinafter provided.

B Materials

Hydrants shall be: Waterous WB-67B-250, with 16-inch upper standpipe section, or in conformance with the following specific requirements:

1. Traffic flange and frangible stem coupling construction required.
2. Two 2 1/2-inch hose nozzles and one 4 1/2-inch pumper nozzle, all with national standard fire hose coupling screw thread, required.
3. 5 1/4-inch nominal diameter of main valve opening.
4. Inlet connection shall be 6-inch mechanical joint with gland, rubber gasket, and high-strength, low-alloy bolts and nuts.
5. Operating nut and cap nuts shall be 1 1/2-inch pentagon measured from point to opposite flat (National Standard), and open left (counter-clockwise).
6. Caps shall be furnished with corrosion resistant metal chains and gaskets.
7. Pressure activated seals shall be the O-ring type.
8. Exposed exterior above proposed ground line shall have been cleaned and primed, as per AWWA, and finished with OSHA safety red enamel. (Repainting over finished coat of a different color is not acceptable.)
9. No drain or drains shall be plugged with manufacturer approved plug.

C Construction

Furnish fire hydrants with upper barrel extensions where required for this project. Install per manufacturer's specifications, with size of trench (bury length) as specified on the drawings. Extensions shall be installed only if and when specified on the drawings or requested by engineer. The traffic flange shall match proposed grade at hydrant, with lead laid nearly flat, unless otherwise shown on drawings, or approved by engineer. If extensions are used, only the stem coupling at the proposed ground line traffic flange shall be of the frangible type.

Unless polywrapped, bolts and nuts on barrel flanges below ground shall contain a protective coating of Koppers 50 or 505, or equal.

Bury length is the vertical distance from the flow line of the connecting pipe to the normal ground line, about 2 inches below the traffic flange, not including extensions.

Use care when handling and backfilling hydrants so as not to damage the paint, especially when backfilling with stone. Hydrants shall also be kept clean and accessible once they are put into service. Sheboygan Water Utility will provide a yellow "Hydrant Out of Service Marker" for each hydrant.

Hydrants shall be supported in vertical positions on solid concrete block or concrete support. If wood blocking and shims are used, they shall be hardwood. Loose and soft ground shall be removed and replaced with stone and blocking of size sufficient to provide stable and unsettling support.

Solid concrete block or hardwood buttressing of equivalent dimensions shall be substituted for concrete behind hydrants and beyond tees, crosses, and dead-ends, which may be extended in the future, provided they can be placed against firm, undisturbed trench walls, and perpendicular to direction of thrust.

If support against firm, undisturbed earth cannot be obtained for buttressing, submit thrust restraint design to engineer for approval.

D Measurement

The department will measure Fire Hydrant Assembly by each, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.23	Fire Hydrant Assembly	EACH

Payment for Fire Hydrant Assembly is full compensation for the fire hydrant; all excavation and disposal of excavated material, except for rock excavation; sawing and breaking pavement; forming foundation; replacing unstable foundation materials; sheeting, shoring, and bracing; dewatering; backfilling and compacting; providing and compacting stone bedding and cover material and granular backfill; trench maintenance; insulation; thrust blocking and restraint; polyethylene wrap; tracer wire; utility and lateral crossings; all testing; and for restoring the site of the work.

53. Service Connection, Item SPV.0060.24.

A Description

Furnish and install Service Connection according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition), as shown on the drawings, and hereinafter provided. Service Connection includes all service reconnects and stubs for future service connections.

B Materials

Minneapolis pattern curb stop boxes shall be used for all installations, with a minimum inside diameter of 1.25 inches (shut off rods are not to be furnished). Length shall be such that there is at least 4 inches of telescopic adjustment in either direction. (NOTE: When using standard 7-foot boxes, the service will have to be about 6 1/2 feet deep to allow adjustment both up and down.) Boxes shall be of iron or steel composition, the upper section of steel.

Lids shall be included on all boxes but for air relief installations in valve boxes, with standard 1 1/4-inch pentagon brass plug, and be of cast iron with the marking “water.”

Pre-approved service boxes are A.Y. McDonald #5614 w/1514L lid, Ford #EM2, or Mueller equal, with an appropriately sized base to fit the curb stop valve thread.

C Construction

Curb stop boxes shall be placed where and at the elevation designated by the Sheboygan Water Utility and/or the City DPW or Plumbing Inspector, and all materials furnished and installed according to the City of Sheboygan plumbing code.

Inlet, ball, and outlet sizes of the curb stops are to be of the same size, and no smaller than the service size required. Curb stops may be copper flared, especially for air relief assemblies. Compression joints shall provide high pull-out resistance. Curb stops shall provide electrical continuity in each direction. Ball style stops are required; plug style are not allowed.

For services being lengthened to reach new main, contractor shall be permitted to use a three-part union, installing it a minimum of 2 feet from old main, and adding the same-sized service as the nominal size of the existing, normally going under old main, connecting to the new corporation, and furnishing and installing a piggy-back reducing nut, if necessary. The new extension shall be polywrapped complete, as per File No. 52 in the Standard Specifications for Sewer & Water Construction in Wisconsin.

After the curb stop, if there is no existing water service, water service shall be capped and marked with a 2-foot by 4-foot piece of wood.

Existing services on the project are assumed to be 3/4 inches, except a 2-inch service to 2729 Taylor Drive and a 1-inch service to 2827 Taylor Drive. The existing 6-inch fire and domestic service is assumed to be ductile iron.

The 6-inch fire and domestic service shall have minimal interruption. Service shall not have a scheduled disruption other than for a tie in of their service to the new main. It is imperative that the water shut off is kept to a minimum.

D Measurement

The department will measure Service Connection by each, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.24	Service Connection	EACH

Payment is full compensation for installation of the service connection including curb stop and boxes as shown on the drawings; fittings; all excavation and disposal of excavated material, except for rock excavation; sawing and breaking pavement; forming foundation; replacing unstable foundation materials; sheeting, shoring, and bracing; dewatering; backfilling and compacting; providing and compacting stone bedding and cover material and granular backfill; trench maintenance; restraint; polyethylene wrap; tracer wire; all testing; and restoring the site of the work.

54. South Taylor Drive Crossing, Item SPV.0060.025.

A Description

Cross South Taylor Drive according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition) and MUTCD, as shown on the drawings, and hereinafter provided. The water main installation will be paid for under the appropriate size water main bid item. Contractor shall determine the method for crossing South Taylor Drive and shall submit water main crossing plan to the engineer and Sheboygan County for approval prior to construction. Depending on the method chosen, work may need to be completed in two or more stages. If two or more stages are required, water main shall be tested in a minimum of two sections.

B Materials

B.1.1 Open Cut

All traffic control shall be according to the MUTCD. Traffic plans shall be submitted for approval.

B.1.2 Jack and Bore

Steel pipe shall conform to ASTM A139 Grade B. The minimum yield strength shall be 35,000 psi. The steel casing pipe shall be a minimum of 24 inches. The minimum wall thickness for casing less than 27 inches shall be 0.25 inches. Thicker walls shall be provided to meet jacking pressures, soil loading, or to conform to permit requirements for the work. Sections of pipe shall be field welded with a continuous circumferential, full depth single “V” groove (butt joint) weld. Welds shall have strength equal to pipe walls.

B.1.3 Horizontal Directional Drill

Horizontal directional drilling shall be provided using high density polyethylene (HDPE) pipe.

A certificate of “Compliance with Specification” shall be furnished for all materials to be supplied by contractor. Test reports prepared by an independent testing laboratory shall be provided certifying that polyethylene pipe conforms to the requirements of ASTM D3350.

Polyethylene pipe shall be joined using the butt-fusion welding process. Provide a fused flanged adapter with ductile iron follower flange and a ductile iron flanged pipe for interconnections with ductile iron or PVC piping.

C Construction

C.1.1 Open Cut

Contractor shall prepare and submit a traffic staging or road closure plan. Work shall be completed between the hours of 8:00 PM to 5:00 AM. Open cut outside of roadway work area shall be restored immediately following the installation with 8 inches of base aggregate dense and 2 inches of hot mix asphalt.

C.1.2 Jack and Bore

Water main shall be placed inside a casing pipe that is installed by tunneling, jacking, boring, or jacking and boring or other acceptable methods not using open-cut construction techniques. Installation shall be accomplished according to federal and state laws and municipal ordinances.

Control water and soil infiltration at the excavated face, along the alignment and at shaft excavations to properly conduct the work, to maintain a stable excavation, and to prevent collapse of the ground. Obtain any dewatering permits required. If contractor’s means and methods are not effective in controlling such infiltration, contractor shall select other means and methods and demonstrate to engineer that water and soil infiltration can be excluded, all at no additional cost. Shafts and open cut excavations shall be excavated by methods determined by contractor to be capable of and suitable for coping with the surface and subsurface conditions. Have a representative on site at all times who is experienced in the tunneling technique being used.

Installation of casing and carrier pipe shall proceed in such a manner as to minimize disruption of traffic and to avoid damage to adjacent roadways and other structures. No equipment shall operate off the pavement, tracks, the shoulder of the roadway, or tracks being crossed during the course of construction. Signs, barricades, flag men, and lighting shall be provided to strictly comply with the MUTCD as may be modified by any permit requirements and as needed to complete the work, with the more stringent requirement controlling.

Casing pipe used shall be of adequate diameter and thickness to support all jacking, earth, live, and other loads imposed and to permit installation of the carrier pipe to plan line and grade.

Casing pipe shall be installed using equipment and material that cases the hole as earth is removed to eliminate cavities at the lead end of the casing pipe. Grouting between casing pipe and soil opening shall be performed when needed to secure casing pipe, to prevent soil collapse, and to fill voids between the casing pipe and native soil. The front of the casing pipe shall be provided with a mechanical arrangement or device that positively prevents the auger from leading the pipe so that no unsupported excavation is ahead of the pipe. The auguring process shall be set such that it permits a balance between jacking pressures and the ratio of carrier pipe advancement to the quantity of soil excavated to eliminate voids in the soil. This is especially critical in the event granular, loose, or unstable soils are encountered at the face of the casing pipe. Maintain a record of soil removed against carrier pipe volume as a check against formation of voids.

Place the carrier pipe inside the casing pipe using stainless steel casing spacers. Casing spacer shall be a two-piece shell per carrier pipe and made from T304 stainless steel of a minimum 14-gauge thickness. Each shell section shall be lined with a 0.090-inch-thick, ribbed PVC extrusion with a retaining section that overlaps the edges of the shell and prevents slippage. PVC Liner shall have a hardness of 85-90 durometer. Bearing surfaces (runners) shall be ultra-high molecular weight polyethylene (UHMW) to provide abrasion resistance and a low coefficient of friction (0.12). The runners shall be attached to support structures (risers) at appropriate positions to properly support the carrier pipe(s) within the casing pipe and to ease installation. The runners shall be mechanically bolted to the spacer. Risers shall be MIG welded to the shell, where applicable. Risers shall be made of T304 stainless steel of a maximum 10 gauge with bolt heads welded to the inside of the risers for strength. Bottom risers 6 inches and over in height shall be reinforced. At least three spacers shall be provided for each length of carrier pipe, but the number of spacers used shall be not less than the minimum requirements of the manufacturer. They shall be attached to the barrel of the carrier pipe, so they are parallel to the longitudinal centerline. The annular space between the casing pipe and carrier pipe shall be filled with low density cellular concrete. The cellular concrete shall be produced by blending pre-formed foam with cementitious slurry consisting of cement, sand, and/or fly ash, and water to produce a concrete having a minimum compressive strength of 50 psi and a maximum compressive strength of 100 psi. Place material to eliminate voids and trapped air along the pipe and in structures so as to fill the entire void.

All carrier pipe within the limits of jacking pits shall be installed at contractor’s expense to resist all loads imposed including, if necessary, the use of special pipe.

C.1.3 Horizontal Directional Drill

Contractor shall use a drilling fluid which is completely biodegradable. Clay-based drilling fluids will also be allowed. Drilling fluid shall be subject to the review of the engineer. Contractor shall provide its own clean water for drilling fluid. At no time shall the drilling fluid be discharged to a surface water. This includes drilling fluid that may surface along the directionally drilled pipe route. Provide other drilling fluids or procedures as needed to prevent a discharge of drilling fluids to surface waters at no additional cost.

The boring unit shall have a tracking device that is capable of providing depth and location at all points of the boring path. Create Record Drawings showing horizontal and vertical locations based on the tracker information and submit to Sheboygan Water Utility.

Submit detailed information to engineer of the procedure and the steps to be followed for the installation of the directional drilling method selected. All such instructions and procedures submitted shall be carefully followed during installation. Any proposed changes in installation procedures shall require submittal of revised procedures to the engineer.

The installed pipe shall be continuous over the entire directionally drilled length and shall be free from visual defects, such as foreign inclusions, concentrated ridges, discoloration, pitting, varying wall thickness, and other deformities. Pipe with gashes, nicks, abrasions, or any such physical damage that may have occurred during storage and/or handling, which are deeper than 10% of the wall thickness, shall not be used and shall be removed from the construction site.

Sections of polyethylene pipe shall be assembled and joined on the jobsite above ground. Pipe ends to be joined shall be cut square, then joined, by the heating and butt-fusion method in strict conformance with the manufacturer’s printed instructions.

The butt-fusion method for pipe jointing shall be carried out in the field by operators with prior experience in fusing polyethylene pipe with similar equipment using proper jigs and tools per standard procedures outlined by the pipe manufacturer. These joints shall have a smooth, uniform, double-rolled back bead made while applying the proper melt, pressure, and alignment. It shall be the sole responsibility of

contractor to provide an acceptable butt-fusion joint. The replacement pipe shall be joined on the site in appropriate working lengths near the insertion pit.

The location and number of insertion or access pits shall be planned by contractor and submitted, in writing, to the engineer prior to excavation. The pits shall be located such that their total number shall be minimized, and the length of replacement pipe installed in a single pull shall be maximized. The maximum length of continuous liner shall not exceed the pipe bursting system manufacturer's recommendations.

Upon completion of the directional drilling operation by contractor, backfill the excavation, perform clean up and all site restoration, as indicated on the drawings. All surfaces shall be restored in kind with thicknesses matching those removed.

Though the installation process may be licensed or proprietary in nature, contractor shall not change any material, thickness, design values, or procedures stated or approved in the submittals. Submit, in writing to the engineer, full details about component materials, their properties and installation procedures, and abide by them fully during the entire course of the Project.

All allowable directional drilling methods are considered to be structurally equal processes as far as end product required.

Attach a 7x19-strand core, 1/4-inch-diameter vinyl-coated galvanized aircraft cable pulled with the directional drilling operation as tracer wire. Aircraft cable shall be attached to the pipe at 20-foot intervals. Tracer wire shall be successfully tested before acceptance.

D Measurement

The department will measure South Taylor Drive Crossing by each crossing, 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.0060.25	South Taylor Drive Crossing	EACH

Payment is full compensation for crossing South Taylor Drive including, but not limited to, any mobilizations required to complete the water main in different stages, traffic control, temporary pavement restoration for open cutting outside of work area, pressure tests as required, all labor, equipment and materials required for a jack and bore or horizontal directional

55. Box Culvert Crossing, Item SPV.0060.26.

A Description

Cross existing box culvert according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition) as shown on the drawings, and hereinafter provided. The water main installation will be paid for under the appropriate size water main bid item. Contractor shall determine the appropriate method for crossing existing box culvert and shall submit water main crossing plan to the engineer and Sheboygan County for approval prior to construction.

B Materials

B.1.1 Open Cut

Contractor shall provide materials required to open cut under the box culvert.

B.1.2 Jack and Bore

Steel pipe shall conform to ASTM A139 Grade B. The minimum yield strength shall be 35,000 psi. The steel casing pipe shall be a minimum of 24 inches. The minimum wall thickness for casing less than 27 inches shall be 0.25 inches. Thicker walls shall be provided to meet jacking pressures, soil loading, or to conform to permit requirements for the work. Sections of pipe shall be field welded with a continuous circumferential, full depth, single "V" groove (butt joint) weld. Welds shall have strength equal to pipe walls.

B.1.3 Horizontal Directional Drill

Horizontal directional drilling shall be provided using HDPE pipe.

A certificate of “Compliance with Specification” shall be furnished for all materials to be supplied by contractor. Test reports prepared by an independent testing laboratory shall be provided certifying that polyethylene pipe conforms to the requirements of ASTM D3350.

Join polyethylene pipe using the butt-fusion welding process. Provide a fused flanged adapter with ductile iron follower flange and a ductile iron flanged pipe for interconnections with ductile iron or PVC piping.

C Construction

C.1.1 Open Cut

Contractor shall adequately brace the existing box culvert. Insulation shall be installed under the box culvert if water main is installed via open cut. If box culvert is damaged by the contractor, contractor shall be responsible for the repair.

C.1.2 Jack and Bore

Water main shall be placed inside a casing pipe that is installed by tunneling, jacking, boring, or jacking and boring or other acceptable methods not using open-cut construction techniques.

Installation shall be accomplished according to Federal and State Laws and municipal ordinances.

Control water and soil infiltration at the excavated face, along the alignment and at shaft excavations to properly conduct the work, to maintain a stable excavation, and to prevent collapse of the ground. Contractor shall obtain any dewatering permits required. If Contractor’s means and methods are not effective in controlling such infiltration, select other means and methods and demonstrate to the engineer that water and soil infiltration can be excluded, all at no additional cost. Shafts and open cut excavations shall be excavated by methods determined by contractor to be capable of and suitable for coping with the surface and subsurface conditions. Have a representative on site at all times who is experienced in the tunneling technique being used.

Installation of casing and carrier pipe shall proceed in such a manner as to minimize disruption of traffic

and to avoid damage to adjacent roadways and other structures. No equipment shall operate off the pavement or tracks or the shoulder of the roadway or tracks being crossed during the course of construction. Signs, barricades, flag men, and lighting shall be provided to strictly comply with the MUTCD as may be modified by any permit requirements and as needed to complete the Work, with the more stringent requirement controlling.

Casing pipe used shall be of adequate diameter and thickness to support all jacking, earth, live, and other loads imposed and to permit installation of the carrier pipe to plan line and grade.

Casing pipe shall be installed using equipment and material that cases the hole as earth is removed to eliminate cavities at the lead end of the casing pipe. Grouting between casing pipe and soil opening shall be performed when needed to secure casing pipe, to prevent soil collapse, and to fill voids between the casing pipe and native soil. The front of the casing pipe shall be provided with a mechanical arrangement or device that positively prevents the auger from leading the pipe so that no unsupported excavation is ahead of the pipe. The auguring process shall be set such that it permits a balance between jacking pressures and the ratio of carrier pipe advancement to the quantity of soil excavated to eliminate voids in the soil. This is especially critical in the event granular, loose, or unstable soils are encountered at the face of the casing pipe. Maintain a record of soil removed against carrier pipe volume as a check against formation of voids.

Place the carrier pipe inside the casing pipe using stainless steel casing spacers. Casing spacer shall be a two-piece shell per carrier pipe and made from T304 stainless steel of a minimum 14-gauge thickness. Each shell section shall be lined with a 0.090-inch-thick, ribbed PVC extrusion with a retaining section that overlaps the edges of the shell and prevents slippage. PVC liner shall have a hardness of 85-90 durometer. Bearing surfaces (runners) shall be UHMW to provide abrasion resistance and a low coefficient of friction (0.12). The runners shall be attached to support structures (risers) at appropriate positions to properly support the carrier pipe(s) within the casing pipe and to ease installation. The runners shall be mechanically bolted to the spacer. Risers shall be MIG welded to the shell, where applicable. Risers shall be made of T304 stainless steel of a maximum 10 gauge with bolt heads welded to the inside of the risers for strength. Bottom risers 6 inches and over in height shall be reinforced. At least three spacers shall be provided for each length of carrier pipe, but the number of spacers used shall be not less than the minimum requirements of the manufacturer. They shall be attached to the barrel of

the carrier pipe, so they are parallel to the longitudinal centerline. The annular space between the casing pipe and carrier pipe shall be filled with low density cellular concrete. The cellular concrete shall be produced by blending pre-formed foam with cementitious slurry consisting of cement, sand, and/or fly ash, and water to produce a concrete having a minimum compressive strength of 50 psi and a maximum compressive strength of 100 psi. Place material to eliminate voids and trapped air along the pipe and in structures so as to fill the entire void.

All carrier pipe within the limits of jacking pits shall be installed at contractor's expense to resist all loads imposed including, if necessary, the use of special pipe.

C.1.3 Horizontal Directional Drill

Contractor shall use a drilling fluid which is completely biodegradable. Clay-based drilling fluids will also be allowed. Drilling fluid shall be subject to the review of the engineer. Contractor shall provide its own clean water for drilling fluid. At no time shall the drilling fluid be discharged to a surface water. This includes drilling fluid that may surface along the directionally drilled pipe route. Provide other drilling fluids or procedures as needed to prevent a discharge of drilling fluids to surface waters at no additional cost.

The boring unit shall have a tracking device that is capable of providing depth and location at all points of the boring path. Create Record Drawings showing horizontal and vertical locations based on the tracker information and submit to Sheboygan Water Utility.

Submit detailed information to the engineer of the procedure and the steps to be followed for the installation of the directional drilling method selected. All such instructions and procedures submitted shall be carefully followed during installation. Any proposed changes in installation procedures shall require submittal of revised procedures to the engineer.

The installed pipe shall be continuous over the entire directionally drilled length and shall be free from visual defects, such as foreign inclusions, concentrated ridges, discoloration, pitting, varying wall thickness, and other deformities. Pipe with gashes, nicks, abrasions, or any such physical damage that may have occurred during storage and handling, which are deeper than 10% of the wall thickness, shall not be used and shall be removed from the construction site.

Sections of polyethylene pipe shall be assembled and joined on the jobsite above ground. Pipe ends to be joined shall be cut square, then joined, by the heating and butt-fusion method in strict conformance with the manufacturer's printed instructions.

The butt-fusion method for pipe jointing shall be carried out in the field by operators with prior experience in fusing polyethylene pipe with similar equipment using proper jigs and tools per standard procedures outlined by the pipe manufacturer. These joints shall have a smooth, uniform, double-rolled back bead made while applying the proper melt, pressure, and alignment. It shall be the sole responsibility of Contractor to provide an acceptable butt-fusion joint. Join the replacement pipe on the site in appropriate working lengths near the insertion pit.

The location and number of insertion or access pits shall be planned by contractor and submitted, in writing, to the engineer prior to excavation. The pits shall be located such that their total number shall be minimized, and the length of replacement pipe installed in a single pull shall be maximized. The maximum length of continuous liner shall not exceed the pipe bursting system manufacturer's recommendations.

Upon completion of the directional drilling operation by contractor, backfill the excavation, perform clean up and all site restoration, as indicated on the drawings. All surfaces shall be restored in kind with thicknesses matching those removed.

Though the installation process may be licensed or proprietary in nature, contractor shall not change any material, thickness, design values, or procedures stated or approved in the submittals. Submit, in writing to the engineer, full details about component materials, their properties and installation procedures, and abide by them fully during the entire course of the Project.

All allowable directional drilling methods are considered to be structurally equal processes as far as end product required.

Attach a 7x19-strand core, 1/4-inch-diameter vinyl-coated galvanized aircraft cable pulled with the directional drilling operation as tracer wire. Aircraft cable shall be attached to the pipe at 20-foot intervals. Tracer wire shall be successfully tested before acceptance.

D Measurement

The department will measure Box Culvert Crossing by each crossing, 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.0060.26	Box Culvert Crossing	EACH

Payment is full compensation for crossing the existing box culvert including but not limited to insulation, temporary bracing of the box culvert, and all labor, equipment, and materials required for a jack and bore or horizontal directional.

56. Storm Sewer Pipe PVC 10-Inch, Item SPV.0090.01; Storm Sewer Pipe PVC 14-Inch, Item SPV.0090.02.

A Description

This special provision describes furnishing and installing PVC storm sewer pipe.

B Materials

Provide solid-wall PVC storm sewer pipe and fittings meeting the requirements of ASTM D 3034.

Provide pipe and fittings having a standard dimension ratio of 26 or 35.

Assemble solvent cement joints using solvent cement obtained from the pipe manufacturer, which conforms to the requirements of ASTM D2564.

The assembled joint must pass the performance tests as required in ASTM D3212.

Provide ASTM D3034 SDR-26 pipe for storm sewer mains deeper than 12 feet.

C Construction

Install PVC storm sewer pipe according to the applicable provisions of standard spec 520, at the alignment and grades shown on the plans.

Install pipe fittings according to the manufacturer’s recommendation.

D Measurement

The department will measure Storm Sewer Pipe PVC (size) in length by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Storm Sewer Pipe PVC 10-Inch	LF
SPV.0090.02	Storm Sewer Pipe PVC 14-Inch	LF

Payment is full compensation for providing all materials, including fittings; all excavating, except rock excavation; forming the foundation; providing and removing sheeting and shoring; laying pipe and sealing joints, and making connections to new or existing fixtures; backfilling; and providing granular backfill material, including bedding material.

57. Fence Chain Link Polymer-Coated 6-Foot, Item SPV.0090.03.

A Description

This special provision describes furnishing and installing a new polymer-coated fence system on structures in conforming to the pertinent plan details and as directed by the engineer. The color of all components in this fence system shall be the same and shall be as specified on the plans.

B Materials

All materials for this fence system shall be new stock, free from defects impairing strength, durability, and appearance. Fabric shall be produced by methods recognized as good commercial practice. Wire used in the manufacture of the fabric shall be capable of being woven into fabric without the polymer-coating cracking or peeling. Pipes used in framework shall be straight, true to section, and free of defects. All burrs at the ends of pipes shall be removed before galvanizing. The polymer-coating shall be a dense, impervious covering, and applied without voids, tears, or cuts that reveal the substrate. Excessive roughness, bubbles, blisters, or flaking in the polymer-coating will be a basis for rejection.

B.1 Fabric

Provide steel chain link fence fabric conforming to the requirements of ASTM F668, Class 2b, a polymer-coating fused and adhered to wire that is zinc coated. Provide fabric woven from 9-gage wire using plan-specified mesh size, diamond pattern, and with both the top and bottom selvages knuckled. The minimum breaking strength of the wire shall be 1290 lbs. The color of polymer-coating shall conform to the requirements of ASTM F934.

B.2 Framework

Provide steel rails, posts, and post sleeves conforming to the requirements of ASTM F1083, Standard Weight Pipe (Schedule 40) of the size (O.D.) and weight as shown on the plans. The minimum yield strength shall be 30,000 psi and the minimum tensile strength shall be 48,000 psi. These components shall be zinc-coated inside and outside by the hot-dip process as stated in ASTM F1083. Provide polymer-coating over zinc-coating conforming to ASTM F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components. Weld base plate to posts or post sleeves and complete any additional welding of components before galvanizing.

B.3 Fittings

Provide end post caps, line post caps, top rail sleeves, rail ends, line rail clamps, brace bands, tension bands, tension bars, and tie wires that are steel and conform to the requirements of ASTM F626. Tie wires shall be round and 9-gage wire. These components (excluding tie wires) shall be zinc-coated by the hot-dip process as stated in ASTM F626. Provide polymer-coating over zinc-coating on components (excluding tie wires) that conforms to the requirements of ASTM F626. For tie wires, provide polymer-coating on wire that is zinc-coated using the same procedure as used for the wires in the fence fabric. End post caps and line post caps shall fit tightly over posts to prevent moisture intrusion. Supply dome style caps for end posts and loop type caps for line posts. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

B.4 Bolts

All bolts are to be supplied with lock washers and nuts. Use galvanized steel bolts, nuts, and washers per plan details.

B.5 Tests

B.5.1 Fabric and Tie Wire

Breaking Strength:	ASTM A370
<u>Zinc-Coating Requirements</u>	
Weight of Zinc-Coating:	ASTM A90
<u>Polymer-Coating Requirements</u>	
Thickness of Polymer-Coating:	ASTM F668
Adhesion:	ASTM F668
Accelerated Aging Test:	ASTM F668, D1499
Mandrel Bend Test:	ASTM F668

B.5.2 Framework

Tensile and Yield Strength:	ASTM E8
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM E376
Adhesion:	ASTM F1043
Accelerated Aging Test:	ASTM F1043, D1499

B.5.3 Fittings

Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F626
Adhesion:	ASTM F1043 (same test as for framework)
Accelerated Aging Test:	ASTM F1043, D1499 (same test as for framework)

B.6.1 Shop Drawings

Submit shop drawings showing the details of fence construction. Show the fence height, post spacing, rail location, and all dimensions necessary for the construction of the chain link fence. Label the end posts, line posts, rails, post sleeves, top rail sleeves, bolts and fittings. State the polymer-coating type used on the fabric, framework, and fittings and the Class of coating used on the fabric. State the color of polymer-coating to be used on the fence components. For the fabric, state the wire gage, mesh size, and type of selvages used. For the framework, state the size (O.D.) and unit weight for the posts and rails. For the fittings, state the size for top rail sleeves, brace bands, tension bands, tension bars, line rail clamps, size and type of bolts, and the tie wire gage. State the material type used for fabric, framework, and fittings. Also give the breaking strength for the fabric wire and the tensile and yield strength properties for the framework.

B.6.2 Specification Compliance

Submit certification of compliance with material specifications. Provide material certification and test documentation for fabric, framework, fittings, and hardware that shows that all materials meet or exceed the specifications of this contract and the tests in Section B5 of this specification. This document shall provide the name, address and phone number of the manufacturer, and the name of a contact person.

C Construction

C.1 Delivery, Storage and Handling

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to review that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off the ground to provide proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

C.2 Touch-up and Repair

For minor damage caused by shipping, handling, or installation to polymer-coated surfaces, touch up the finish conforming to the manufacturer’s recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6 feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the department. The contractor shall provide the engineer with a copy of the manufacturer’s recommended repair procedure and materials before repairing damaged coatings.

C.3 General

Install the chain link fence conforming to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20 feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near 1/4-point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement

The department will measure Fence Chain Link Polymer-Coated 6-Foot in length 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.0090.03	Fence Chain Link Polymer-Coated 6-Foot	LF

Payment for Fence Chain Link Polymer-Coated 6-Foot B-59-0048 is full compensation for fabricating, galvanizing, and polymer-coating all fence components, and transporting to jobsite; and for erecting components to create a polymer-coated fence system, including any touch-ups and repairs.

58. Strip Seal Gland Replacement, Item SPV.0090.04.

A Description

This special provision describes removing and replacing the strip seal gland according to standard spec 502, as shown on the plans, and as hereinafter provided.

B Materials

Determine the correct seal manufacturer from field inspection. Remove a small portion of the seal if necessary. Shop fabricate the gland to conform to the contour of the bridge deck and the field measured dimensions of the joints.

Provide a minimum polychloroprene strip seal thickness of 1/4 inch for non-reinforced elastomeric glands and 1/8 inch for reinforced glands. Furnish the strip seal glands in lengths suitable for a continuous one-piece installation at each individual expansion joint location. Provide preformed polychloroprene strip seals that confirm to the requirements of ASTM D3542, and have the following physical properties:

Property Requirements	Value	Test Method
Tensile Strength, min.	2,000 psi	ASTM D412
Elongation at Break, min.	250%	ASTM D412
Hardness, Type A, Durometer	60 ± 5 pts.	ASTM D2240
Compression Set, 70 hours at 212°F, max.	35%	D395 Method B Modified
Ozone Resistance, after 70 hours at 100°F under 20% Strain, with 100 pphm ozone	No cracks	ASTM D1149
Mass Change in Oil #3 after 70 hours at 212°F, max.	45%	ASTM D471

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

	Model Number for Strip Seal Gland Size*		
Manufacturer	**4-Inch**	**5-Inch**	**6-Inch**
D.S. Brown	SSA2-A2R-400	SSA2-A2R-XTRA	SSA2-A2R-XTRA
R.J. Watson	RJA-RJ400	RHA-RJ500	RJA-R600
Watson Bowman	A-SE400	A-SE500	A-SE800
Commercial Fabricators	A-AS400	---	---

*Expansion device strip seal gland size shall match existing.

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

Furnish manufacturer's certifications for adhesive attesting the materials meet the specification requirements.

C Construction

Remove the existing gland. Clean the exposed structural steel expansion joint device according to SSPC-SP2, Hand Tool Cleaning.

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

D Measurement

The department will measure Strip Seal Gland Replacement as each individual strip seal gland replacement, 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.0090.04	Strip Seal Gland Replacement	LF

Payment is full compensation for verifying strip seal type; removing and replacing the strip seal gland; and for all cleaning.

59. Sidewalk Cover Plate, Item SPV.0090.05.

A Description

This special provision describes furnishing and installing an expansion joint cover plate at the new sidewalk at south end of the west and east abutments of bridge B-59-0048.

B Materials

All materials for the cover plate shall conform to standard spec 502 and standard spec 506, and as indicated on the drawings.

C Construction

Construction methods shall be according to standard spec 502 and standard spec 506. Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to review that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. Contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off the ground to provide proper ventilation and drainage and to provide protection against damage caused by ground moisture.

D Measurement

The department will measure Sidewalk Cover Plate 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.0090.05	Sidewalk Cover Plate	LF

Payment is full compensation for fabricating and galvanizing all cover plate components and transporting to jobsite.

60. Televising Sanitary Sewer, Item SPV.0090.06.

A Description

Inspect and document all sanitary sewer pipes with closed circuit television as shown on the plans and hereinafter provided.

B Materials

The camera, television monitor, and other components of the video system shall be capable of producing a quality color picture. The television camera used for the inspection shall be one specifically designed and constructed for such inspection and shall be capable of radial view for inspection of the entire pipe, including lateral connections. The camera shall be mounted on adjustable skids, or self-propelled, and positioned in the center of the pipe. Lighting of the camera shall be supplied by a lamp on the camera and shall be capable of lighting the entire periphery of the pipe. The camera shall be operative in 100% humidity conditions and shall have a minimum of 650 lines of resolution. The view seen on the televising camera shall be transmitted to a monitor of not less than 17 inches.

C Construction

C.1 Procedures

The intent of closed circuit televising inspection (CCTI) is to observe and record the conditions of the sewer sections being inspected. The location of the laterals will also be documented on the report.

A minimum of one pass with a jet shall be made prior to televising.

The television camera shall be moved through a sewer at a uniform rate, stopping when necessary to provide proper documentation of the sewer. The television camera shall not be pulled a speed greater than 30 feet per minute.

During the inspection operation, if the television camera will not pass through the entire sewer section, reset equipment in a manner so that the inspection can be performed from the opposite manhole. If, again, the cameral fails to pass through the entire section, excavate and repair or replace the defective section. All costs for the reset and repair due to an obstruction will be incidental to the linear foot price for sanitary sewer.

If the camera becomes submerged due to a sag in the pipe, a high velocity jet will be utilized to pull water away from the camera lens. If the engineer deems that the sag is not acceptable, excavate and repair or replace the defective section of pipe. All costs for the reset and repair due to an obstruction will be incidental to the linear foot price for sanitary sewer.

If the camera becomes trapped within the sewer, it is the responsibility of the contractor to remove the camera. All costs for removal, including possible excavation and restoration are the responsibility of the contractor.

C.2 Inspection Logs

The logs shall be computer printed. One copy in a PDF format shall be supplied to the engineer. Television inspection logs must include the following:

1. Date, time, city, street, basin, sewer section, reference manhole number, name of operator, inspector, and weather conditions.
2. Pipe diameter, pipe material, section length, depth, length between joints, and corresponding video recording identification.
3. Location of each point of leakage and estimate of flow.
4. Location of each service connection.
5. Location of any damaged sections, nature of damage, and location with respect to pipe axis (such as mineral deposit, cracked pipe, sage, etc.).

C.3 Recordings

The purpose of video recording is to supply a visual record and audio record of the condition of sewers. Recording playback shall be done at the same speed that it was recorded. Upon final payment of the work, all video recording shall become the property of the City of Sheboygan, and shall be in a digital format. A complete video and audio recording shall be made of each line televised. Recordings and packages shall be labeled with location information and inspection date. Television inspection reports shall include the following:

1. Visual (On Screen in Corner):
    a. Report number.
    b. Date of television inspection.
    c. Sewer section and number.
    d. Current distance along reach (tape counter footage).
2. Audio:
    a. Date and time of television inspection, operator name, name of overlaying or adjacent street, and manhole numbers.
    b. Verbal confirmation of sewer section and televising direction in relation to the direction of flow.
    c. Verbal description of pipe size, type, and pipe joint length.
    d. Verbal description and location of each service connection and pipe defect.
    e. Type of weather during inspection.

D Measurement

The department will measure Televising Sanitary Sewer in length by the linear foot, acceptably completed. The measurement equals the distance along the centerline of the pipe, from sanitary manhole to manhole or to the end of the existing sanitary sewer pipe. No deductions from those measured lengths will be made for intermediate fittings. No deductions will be made for sanitary manholes.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.06	Televising Sanitary Sewer	LF

Payment is full compensation for providing all labor and materials necessary to properly perform the work, and for providing the final inspection reports to the engineer.

61. Sanitary Sewer Cured-In-Place Liner, Item SPV.0090.07.

A Description

This special provision describes the installation of a cured-in-place pipe liner as part of the rehabilitation of the existing sanitary sewer as shown on the plans and hereinafter provided.

B Materials

B.1 Cured-In-Place Liner

B.1.1 Resin

Polyester resin for general chemical applications:

1. Up to 5% by mass thixotropic agent, which will not interfere with visual inspection, may be added for viscosity control.
2. Resins may contain pigments, dyes, or colorants, which will not interfere with visual inspection of cured liner.

B.1.2 Reinforcing Material

Non-Woven, needle interlocked polyester felt formed into sheets of required thickness.

1. Felt tubes may be made of single or multiple layer construction, with any layer not less than 1.5 mm thick.
2. Mechanical strengthener membrane or strips may be sandwiched in between layers where required to control longitudinal stretching.
3. Liners shall have a bonded internal polyurethane membrane, which must be left on the internal surface of liner after curing.
4. Minimum thickness of bonded polyurethane membrane and inner liner, if used shall be 0.3 mm, +5% and shall not affect structural dimension requirements of cured liner.

B.1.3 Felt Content

1. Content shall provide cured thickness of liner as specified.
2. Thickness of cured liner to be as specified (+10% to 4%) and shall not include thickness of polyurethane inner liner.

B.1.4 Resin Content

10 to 15% by volume greater than volume of felt in liner bag.

B.1.5 Cured liner shall conform to minimal structure standards listed:

	Standard	Value
Tensile Strength	ASTM D638	3,000 psi
Flexural Modulus of Elasticity	ASTM D790	250,000 psi
Flexural Strength	ASTM D790	4,500 psi

B.1.6 Liner Pipe Thickness Design Criteria

1. Minimum depth of cover over sewer will be 10.0 feet.
2. Ground water height will be one-half of soil cover.
3. Ovality will be 2.0%.
4. Unit weight of soil is 120 pcf.
5. Unit weight of soil is 120 pcf.
6. Safety factor of 2.
7. All liners must meet a minimum thickness of 6mm.
8. Contractor must submit design data and cured-in-place pipe liner thickness for each run of pipe from manhole to manhole to engineer.

B.1.7 Fabricate liner to size that then installed will fit internal circumference of pipe. Allowance shall be made for circumferential stretching during insertion.

B.1.8 Meet requirements for ASTM F-1216.

B.2 Submittals

B.2.1 Product Data

1. Manufacturer's project literature, application, and installation requirements for materials used in liner.
2. Manufacturer's project certification for materials used in liner.

B.2.2 Contractor

1. List completed projects, including location and contact (minimum 100,000 linear feet).
2. Proposed plan for bypassing sewage during liner installation.

B.2.3 Post Lining Submittals

1. Testing results per Section C.5.4.
2. CCTV tapes and reports (pre and post lining) per Section C.5.5.

B.3 Quality Assurance

B.3.1 Corrosion

Fabricate finished liner from materials which, when cured, will be chemically resistant to withstand internal exposure to domestic sewage.

B.3.2 Manhole Connections

All manhole connections shall be water tight.

C Construction

C.1 Examination

Examine tapes of condition of pipe interior before starting work.

C.2 Preparation

1. Prior to liner installations, sufficiently remove protruding taps, mineral deposits, roots, and other debris from sewer line to the industry standard of 95% of the pipe diameter.
2. Prior to liner installations, repair offset joint at the concrete to PVC joint connection approximately 85.9 feet north of MH3 between MH3 and MH 31. This is the only known offset joint. If additional offset joints or collapsed pipe sections are present that will prevent insertion of the liner. Notify the engineer immediately.
3. Sewage Bypassing–Provide for flow of sewage around sections of pipe to be lined.
    a. Pump or bypass lines shall be of adequate size and capacity to handle flow.
    b. Coordinate bypassing operations with the engineer.

C.3 Installation

C.3.1 Preparation of Liner

1. Resin Impregnation
    a. Designate location where uncured resin in original containers and unimpregnated liner will be vacuum impregnated prior to installation. Installer shall allow engineer to inspect materials and "wet out" procedure.
    b. Resin and catalyst system compatible with requirements of this method shall be used. Quantities of liquid thermosetting materials shall be to manufacturer's standards to provide lining thickness required.
    c. Transport resin impregnated liner to site immediately prior to inversion in suitable light-proof container with temperature maintained below 40°F.
2. Insertion of Liner–Insert liner through an existing manhole by means of inversion process. Lubricant may be used.

3. Curing Liner
    a. After inversion is complete, apply heat source and recirculation equipment. Equipment shall be capable of uniformly raising the temperature of the liner above the temperature required to effect cure of resin.
    b. Provide suitable monitors to gauge temperature of incoming and outgoing heating source. Place second gauge between impregnated liner and pipe invert at remote manhole to determine temperatures during cure. Temperature in line during cure period shall be as recommended by resin manufacturer.
    c. Initial cure shall be complete when inspection of exposed portions of liner to be hard and sound and remote temperature sensor indicates that temperature is of magnitude to realize an exotherm.
    d. Cool hardened liner to temperature below 100°F before relieving pressure in the liner.

C.4 Connections

C.4.1 Service Connections

1. Locations–Determine service connection locations from television inspection video tapes.
2. Reinstatements
    a. Reinstate and reconnect service connections unless service connection is deemed to be inactive.
    b. Reconnect services without excavation by television camera and cutting device that reestablishes services for minimum of 95% of the flow capacity.
    c. Sanitary services shall not be out of service for more than 24 hours during lining process.

C.4.2 Manhole Connections

1. Reconstruct benches and channels in manholes with grout to match new invert elevations.
2. At the connection to the manhole, provide a watertight seal between the host pipe and liner pipe.

C.5 Field Quality Control

C.5.1 Finished Liner

1. Liner shall be continuous over the entire length of insertion run and be as free as commercially practicable from visual defects such as foreign inclusions, dry spots, pinholes, and delaminations.
2. During curing process, gauge water tightness under positive head.
3. Liner shall conform to shape of pipe existing before installation and not be out of round by more than 15%.

C.5.2 Liner Thickness

Cured liner shall be accurately measured and shall not be more than 5% less than thickness specified.

C.5.3 Felt and Resin Content of Liner

1. Visually inspect liner to review that the number of layers and felt conforms to specified number of layers and thickness.
2. Calculate resin to felt ratio by weight.
3. Ratio shall fall in range 1.0:1 to 1.15:1.

C.5.4 Testing

Flexural Strength and Modulus of Elasticity:

1. Testing shall be completed by a third party according to ASTM D790.
2. Specimens tested shall be actual thickness of fabricated liner.

3. Do not machine specimen on surface.
4. Make test with smooth (inner) face in compression using five specimens.

C.5.5 CCTV Examination

1. Televise interior of pipe after completion and provide tape to the engineer.
2. Use pan and tilt color 3 lux camera to view the sewer service lateral connections.

C.6 Cleaning and Restoration

At completion of work, remove rubbish, debris, dirt, equipment and excess material from site. Clean and restore adjacent surfaces soiled by and during course of work.

D Measurement

The department will measure Sanitary Sewer Cured-In-Place Liner in length by the linear foot, acceptably completed. Measurements will be taken along the centerline of the pipe. The distance through the sanitary manholes will be excluded from the measurement.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.07	Sanitary Sewer Cured-In-Place Liner	LF

Payment is full compensation for site preparation, cleaning, and joint repair for one known offset joint of existing sanitary sewers to condition necessary for proper installation of product, preinstallation televising, determining if existing service connections are active or inactive, placement of lining material within sanitary sewer, flow control including bypass pumping, if required, reinstatement and reconnection of active service connections, sewer testing and internal inspections of installations, cleanup, and other appurtenant and incidental work. The televising of the sanitary sewer to determine installed conditions will be measured and paid for separately.

62. Sanitary Sewer 10-Inch, Item SPV.0090.08.

A Description

Furnish and install sanitary sewer main according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition), as shown on the plans, and hereinafter provided.

B Materials

B.1 General

Sanitary sewers shall be polyvinyl chloride pipe conforming to the requirements of ASTM D3034, SDR-35 with elastomeric gasket type joints.

Pipe bedding material shall consist of 3/4-inch crushed stone chips conforming to Section 8.43.2(a)2 of “Standard Specifications for Sewer and Water”. Backfill material shall conform to standard spec 209.

B.2 Shop Drawings

Prior to incorporating any materials or projects into the work, submit to the engineer and City of Sheboygan product literature and catalog cuts of the materials being supplied. Submit sufficient detail to readily determine if these materials are in conformance with the required specifications.

C Construction

C.1 Applicable Specifications

Perform all sanitary sewer system construction in conformance to the Standard Specifications for Sewer & Water Testing in the State of Wisconsin (latest edition).

C.2 Sanitary Sewer Mainline Testing

Complete alignment, grade, deflection, and deformation testing; water filtration and water exfiltration testing; low pressure air tests; and mandrel tests. Closed circuit television testing is also required and will be measured and paid for separately.

C.3 Maintenance Sanitary Sewer Service

Provide adequate equipment and facilities to provide bypass pumping for all elements of work requiring interruption to flow in the sanitary sewer. The contractor is responsible for damages to private or public property due to sewer backup while controlling sewage flow.

C.4 Cleaning

The contractor is responsible to see that the sanitary sewer lines are free at all times of dirt, gravel, and debris resulting from construction operations. The City of Sheboygan will notify the contractor of any debris identified, and if the contractor fails to property clean out the debris, the City of Sheboygan will charge the contractor for cleaning any of the manholes and sewer lines on this project during construction and until final acceptance of the improvements. Upon completion of the work, any debris in the manholes or deposited as a result of this project shall be removed prior to leaving the construction site.

D Measurement

The department will measure Sanitary Sewer 10-Inch in length 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.0090.08	Sanitary Sewer 10-Inch	LF

Payment is full compensation for all excavation, except for rock excavation; forming foundation; replacing unstable foundation materials; sheeting, shoring ,and dewatering; laying pipe; making connections to new or existing pipe or fixtures; backfilling and compacting; providing and compacting stone bedding material and granular backfill; providing flow control and temporary pumping; testing; cleaning out pipes and manholes; and restoring the work site.

63. Sanitary Sewer Spot Repair, Item SPV.0090.09.

A Description

This special provision describes repairing additional sanitary sewer issues identified during construction and pre-CIPP lining according to the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition).

B Materials

B.1 General

Sanitary sewers shall be polyvinyl chloride pipe conforming to the requirements of ASTM D3034, SDR-35 with elastomeric gasket type joints.

Pipe bedding material shall consist of 3/4-inch crushed stone chips conforming to Section 8.43.2(a)2 of “Standard Specifications for Sewer and Water”. Backfill material shall conform to standard spec 209.

B.2Shop Drawings

Prior to incorporating any materials or projects into the work, submit to the engineer and City of Sheboygan product literature and catalog cuts of the materials being supplied. Submit sufficient detail to readily determine if these materials are in conformance with the required specifications.

C Construction

C.1 Applicable Specifications

Perform all sanitary sewer system construction in conformance to the Standard Specifications for Sewer & Water Testing in the State of Wisconsin (latest edition).

C.2 Sanitary Sewer Mainline Testing

Complete alignment, grade, deflection, and deformation testing; water filtration and water exfiltration testing; low pressure air tests; and mandrel tests. Closed circuit television testing is also required and will be measured and paid for separately.

C.3 Maintenance Sanitary Sewer Service

Provide adequate equipment and facilities to provide bypass pumping for all elements of work requiring interruption to flow in the sanitary sewer. The contractor is responsible for damages to private or public property due to sewer backup while controlling sewage flow.

C.4 Cleaning

The contractor is responsible for keeping the sanitary sewer lines are free at all times of dirt, gravel, and debris resulting from construction operations. The engineer will notify the contractor of any debris identified, and if the contractor fails to property clean out the debris, City of Sheboygan will charge the contractor for cleaning any of the manholes and sewer lines on this project during construction and until final acceptance of the improvements. Upon completion of the work, any debris in the manholes or deposited as a result of this project shall be removed prior to leaving the construction site.

D Measurement

The department will measure Sanitary Sewer Spot Repair in length 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.0090.09	Sanitary Sewer Spot Repair	LF

Payment is full compensation for all excavation, except for rock excavation; forming foundation; replacing unstable foundation materials; sheeting, shoring, and dewatering; laying pipe; making connections to new or existing pipe or fixtures; backfilling and compacting; providing and compacting stone bedding material and granular backfill; providing flow control and temporary pumping; testing; cleaning out pipes and manholes; and restoring the site of the work.

64. 12-Inch PVC Water Main, Item SPV.0090.10; 8-Inch PVC Water Main, Item SPV.0090.11; 6-Inch PVC Water Main, Item SPV.0090.10.

A Description

Furnish and install water main according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition), as shown on the drawings, and hereinafter provided.

B Materials

B.1.1 Bedding and Cover Material

Bedding and cover material shall be sand conforming to Section 8.43.2(c), as shown on File No. 36 in the Standard Specifications for Sewer & Water Construction in Wisconsin, except that cover material shall extend to 12 inches over pipe.

B.1.2 Pipes and Fittings

The water main on this project shall be PVC. The pipe at the tie-ins shall be ductile iron as indicated on the drawings. All pipe locations called out as ductile iron shall be paid under the appropriate sized PVC bid item.

The ductile iron pipe, 6-inch fire service, and hydrant leads shall be ductile iron, class 52 minimum.

PVC pipe, as noted on the drawings or bid documents, shall conform to AWWA C-900 or C-905, latest revision, have the O.D. of ductile iron and have a pressure class rating of at least 150 psi and a dimension ratio of 18 or stronger.

Unless specifically prohibited, if PVC is allowed, it may be of the PVCO type, provided it also meets all the requirements of AWWA C-909 latest revision, have the O.D. of ductile iron, and have a pressure class rating of at least 200 psi.

All fittings shall be ductile or cast iron. Minimum working pressure rating shall be 250 psi, except that for ductile iron fittings 24 inches and smaller, the minimum working pressure rating shall be 350 psi.

Joints shall be mechanical, unless otherwise specified.

Special fittings and accessories, not otherwise covered in the contract documents, shall conform substantially with other fitting requirements and be compatible with the existing and proposed pipe materials. Significant deviations, if any, shall be stated in writing to and approved by the engineer.

All cast or ductile fittings shall be cement-lined on the interior flow way, unless epoxy-coated, per the Standard Specifications for Sewer and Water Construction in Wisconsin.

B.1.3 Backfill

Granular backfill conforming to Section 8.43.4 shall be used for backfill in all areas shown on the drawings, and in areas were excavated material is deemed not suitable by engineer.

Crushed road gravel conforming to Section 8.43.7 shall be used for the top 12 inches of backfill under and within 18 inches horizontally of existing pavements or proposed pavements, curbs, parking lots, driveways, and other areas when noted on the drawings.

B.1.4 Chlorination

Contractor shall provide chlorinating materials and equipment. Permatex No. 1 is not allowed. Tablets, if used, shall be attached with USDA approved food grade adhesives, such as Permatex Form-a-gasket No. 2 and Permatex Clear RTV Silicone Adhesive Sealant.

B.1.5 Joint Restraint

Where joint restraint is required per the drawings or specifications, contractor shall install retainer glands (“Megalug®” by EBAA Iron, Inc., or equal), manufactured harnesses, and/or locking push joint gaskets, and where not feasible install “Cor-Ten®” tie rods (quantity per joint per manufacturer’s load table) and appurtenances (“Star™” Joint Restraint System, or equal.) All unwrapped joint restraint rod and clamps shall be thoroughly coated for corrosion protection with an approved bituminous protective coating, per Section 4.9.3. Push on joints shall be restrained 30 feet in either direction of all upper vertical bends and 15 feet in either direction of all lower vertical bends.

C Construction

C.1.1 Excavation

Water main installation shall be coordinated with road contractor for sequencing. No pavement, sidewalk, or curb and gutter removal will be paid for under the water main installation.

Perform construction within existing right-of-ways, easements, and construction licenses shown on the drawings. Any construction activity (excavating, stockpiling, tree removal, etc.) on private property beyond the above-stated limits shall be only after contractor receives approval from the corresponding jurisdiction or private property owner.

Sheboygan Water Utility reserves the right to order up to 100% of surplus excavated material to be delivered to locations designated by it.

Trees and bushes located within the right-of-ways and easements secured for the work shall be saved. If trees and bushes are damaged, they shall be replaced at contractor's expense.

Excavations must be conducted according to OSHA Standards. Sheboygan Water Utility personnel will refuse to enter trenches not in conformance with OSHA standards.

Street opening permits (from the city’s Building Inspection Department) for water main and service work are not required on this project.

C.1.2 Existing Utilities

Underground utilities and structures that might conflict with the location of proposed facilities and require adjustments to the design shall be exposed adequately and at the start of construction, to allow engineer reasonable time to check for conflicts and make the necessary adjustments, without additional compensation for delays.

Provide adequate notice (a minimum of three working days or more) to utility owners of facilities such as poles and anchors that may need to be supported or relocated by them, prior to excavating, and accommodate such needs.

C.1.3 Backfill

All backfill, whether granular or excavated, shall be consolidated by mechanical means, in compacted lifts of 18 inches maximum; 12 inches for clay. Consolidate all backfill to minimum 95% maximum density as determined by ASTM D698 (Standard Proctor).

Sheboygan Water Utility shall, at its expense, contract with an independent firm to perform compaction tests and sieve analysis on granular backfill. Four compaction tests shall be taken within the first 400 feet of water main trench, and then two for each additional 400 feet of trench or fraction thereof, at locations determined by the engineer. One sieve analysis shall be performed for every 1,000 feet or fraction thereof.

All tests shall be at depths between 2 feet and 4 feet below finished grade, with contractor to re-excavate and properly backfill and compact each test site.

C.1.4 Tracer Wire

Tracer wire shall be installed continuously along the entire length of all non-metallic pipelines (including laterals and fire hydrant leads) being installed. Surface termination points shall be at hydrants, mainline valves, and each end of the tracer wire if existing main is without tracer wire. Tape at intervals less than 10 feet or continuously, if necessary, to maintain its position on top of the pipe. The wire shall “loop” on intermediate hydrant leads (even if DI), terminating at the hydrant (as shown on File No. 24A) and return along the lead back to the tee and continue along the main. Tracer wire at valve boxes shall come up on the outside of the valve box and then enter the valve box at the top of the middle section and terminate at the lid.

Final testing of the tracer wire will be performed by Sheboygan Water Utility; discontinuities shall be repaired by the contractor.

C.1.5 Fittings

Special fittings may be supported in vertical positions on solid concrete block or concrete support. If wood blocking and shims are used, they shall be of good quality hardwood. Loose and soft ground shall be removed and replaced with stone and blocking of size sufficient to provide stable and unsettling support.

C1.6 Solid Concrete Block/Hardwood Buttressing

Solid concrete block and/or hardwood buttressing of equivalent dimensions shall be substituted for concrete behind hydrants and beyond tees, crosses, and dead-ends, which may be extended in the future, provided they can be placed against firm, undisturbed trench walls, and perpendicular to direction of thrust.

If adequate support against firm, undisturbed earth cannot be obtained for buttressing, submit thrust restraint design to engineer for approval.

C.1.7 Joint Restraint

Where joint restraint is required per the drawings or specifications. Install retainer glands. If additional excavating is yet to be done and/or backfilling is not completed or well compacted, install additional restraint using blocking or buttressing.

C.1.8 Polyethylene Wrap

Twelve mil polyethylene wrap is required. All installed iron piping shall be wrapped, including ductile iron pipe, valves, valve boxes, fittings and hydrants, and services. Polywrapping of service connections, valves, and hydrants shall be incidental to the price bid for that work.

Repairs to damaged polyethylene must be made by covering defect with polyethylene or approved tape; duct tape alone is not allowed.

Any damage to the coating on existing iron water lines remaining in service must be repaired with an approved bituminous protective coating.

C.1.9 Insulation

Insulating boards (extruded polystyrene) shall be used in lieu of insulating concrete, unless specifically approved in writing by engineer. They shall be placed in minimum dimensions of 2 feet wide by 4 feet long by 1-inch thick, with no gaps between adjacent sheets. They shall be centered over and to a width extending at least 12 inches beyond each side of pipe. See also File No. 48 in the Standard

Specifications for Sewer & Water Construction in Wisconsin. Thickness shall be as specified by engineer. Generally, it shall be figured as at least 2-inch thick for every foot or fraction of a foot that the existing (or future, if lower) cover from finished grade is less than 6 feet (5.5 feet for 8 inches through 16 inches, and 5 feet for water lines greater than 16 inches in diameter). In extreme cases, typically where the cover will be less than 4.5 feet, the sides of the water line shall also be insulated (typically 2 inches thick) from the flat insulation down to a point even with the bottom of the water line. Insulation is required above and on the near side of water mains and services whenever the water line is within close proximity of a catch basin, manhole, culvert, large storm sewer, or other object of susceptibility for freezing, and as otherwise shown on the drawings. Care shall be taken to avoid scratching the water pipe with the backhoe bucket. If scratched, it shall be repaired per 4.4.4 in the Standard Specifications for Sewer & Water Construction in Wisconsin.

Minimum width of insulation shall be 4 feet and placed no more than 12 inches above the pipe. It shall overhang the side of the service pipe by at least 18 inches.

C.1.10 Depth of Cover

Depth of cover shall be measured from the existing or future finished grad, whichever is lower, to top of pipe. Future grade may be used if existing grade is going to be brought up to within 8 inches of finished grade before winter. Caution needs to be taken that the corporation is not tapped too high on the side of the main, and that the first part of the service is insulated if necessary. These requirements shall also be applied to existing water services when and where contractor is explicitly required to insulate.

C.1.11 Water Main Testing and Sampling Procedures

A combined pressure and leak test typically will be allowed. It shall be performed by contractor and witnessed by Utility, during normal working hours, with no charge to contractor for successful tests (if any fail, they will be charged at regular rates) for such witnessing.

Though a test section may include more than one segment, any and all intermediate valves shall be at least momentarily checked to see that they hold system pressure, including hydrant lead valves. When practical, they shall be checked for 100% shutoff in each direction.

The pressure and leak test gauge shall be at least 2.5-inch diameter with a range of no more than 200 psi or 4 inches diameter with a range of no more than 300 psi. The gauge shall read in increments not to exceed 5 psi in the testing range.

The duration of the “final” pressure test shall be two hours. The duration of the “final” leakage test, if needed, shall be two hours.

The contractor shall provide a hydrant nozzle valve for each hydrant to facilitate flushing, if desired. Temporary sample cocks and fittings, when necessary, shall be furnished, installed, and removed by contractor, and main plugged, in presence of engineer, with watertight cc threaded brass plugs, or suitable plug on outlet of corporation when attached to a saddle, at completion of sampling. (For an example of a flushing and sampling assembly, see detail on drawings.)

When flushing mains, highly chlorinated water shall be thoroughly de-chlorinated by approved methods. New mains shall be flushed, when possible, at a minimum velocity of 2.5 ft./sec., prior to sampling and being put into service. Hydrants shall not be used for bacteriological sampling

The Sheboygan Water Utility will collect samples during normal working hours at no cost to contractor for successful tests. If any tests fail, they will be charged at regular rates. Collection and testing of samples, if performed at times other than normal policy, by Sheboygan Water Utility, will be charged to the contractor, at overtime rates.

Contractor shall provide all labor and equipment, including sample points, and sterilize, flush, and hydrostatically test all new water main and large service laterals (and extensions and modifications to existing lines). This would apply to lines generally larger than 2 inches in diameter. Pressure testing shall be witnessed by Sheboygan Water Utility, during normal working hours (Monday through Friday, 7:00 AM to 3:30 PM).

Pipe shall be kept clean. Maintaining clean pipes and avoiding major contamination during construction will save time and expense during testing. Even extremely high chlorine concentrations will not disinfect a dirty main. Also, flushing is no substitute for preventive measures during construction.

Where pipe, valves, and fittings installed at connections to existing mains cannot be sterilized and flushed in the same manner as new installations, use the following procedures:

1. After existing pipe, valve, or fitting has been exposed or plug removed, clean and wash existing point of connection with not less than two applications of 25% solution of sodium hypochlorite.
2. Clean and wash each new fitting, valve, and pipe section to remove foreign materials, which could cause contamination. After cleaning and just before lowering into trench, wash with two applications of 25% solution sodium hypochlorite. Sterilize joint materials before use. In making installation, care should be used to avoid contaminating surfaces coming in contact with water when installation is restored to service.

Water for flushing and testing purposes may be obtained from Sheboygan Water Utility at no cost to contractor. If pressure test fails, contractor shall be required to pay for additional water. To maintain adequate system pressure, no more than one hydrant at a time shall be flushed without prior approval by the Sheboygan Water Utility. The utility engineer (920-459-3806) shall be notified immediately prior to and after flushing, to report when being used and estimate of amount of water used. After hours and weekends, call on duty personnel at 920-459-3811.

If water is to be used for any other purpose than filling, flushing, and testing the main, or from other than hydrants installed by contractor on this project, contractor shall apply in person for a Hydrant Use Permit at the Sheboygan Water Utility office, 72 Park Avenue, 8:00 AM to 4:30 PM daily. Contractor shall not operate any “public” water main valve or hydrant. Contractor is only authorized to operate the hydrant nozzle valve that will be installed by the Utility after a Hydrant Use Permit is acquired.

Sheboygan Water Utility shall determine the location(s) for sampling, and sample and perform two bacteriological tests at each location. Each dead-end and major branch and every additional approximately 1,000-foot segment of main will be sampled. If, in the opinion of engineer, trench water or excessive dirt or debris has entered the main, samples in such areas shall be taken at intervals of approximately 200 feet. All sampling is performed by utility engineer. Contractor must coordinate with utility engineer to schedule sampling. Samples will not be collected on weekends or on a Utility holiday. To confirm test results, call the utility engineer at 920-459-3806, or the Utility’s laboratory person at (920) 459-3811.

Fire hydrants are not to be used for sampling. If provisions require water services and/or air relief assemblies to be installed at locations acceptable for sampling, the contractor may install such corporations for sampling prior to their reuse after safe samples have been obtained. Sample points shall terminate with no larger than a 1/2-inch hose bib or valve with tailpiece no longer than 6 inches long and 1/2-inch diameter, and be capable of sterilization by torching the valve and discharge (a 1/4-inch boiler cock on a building riser is ideal). Sample points must be extended out of the trench, above grade and accessible to Utility staff. Utility personnel shall not be required to enter a trench.

Keep sample points, as well as the main and hydrants, from freezing.

In addition to the WDNR’s requirements, the Sheboygan Water Utility requires the following sampling procedure be used for sampling new water mains (and larger services) and modifications thereto:

1. Water supply valves shall remain closed at all times during the construction, except while filling, flushing, and at the time of each sampling of the new main. Water shall not be used for any other purpose until after sampling is completed and the line is deemed safe.
2. The final flushing must reduce the high chlorine concentration down to normal distribution system levels (less than 1.0 part per million).
3. After the final flushing, the water main must sit undisturbed, for a minimum of 16 to 24 hours before the first sample is collected by Sheboygan Water Utility. It must remain undisturbed until after the second sample, which will be collected by Sheboygan Water Utility, not less than 24 hours after the first sample. When both the first and second bacteriological samples are tested to be safe, the segment can then be connected to the distribution system and put in services.

If any of the original tests are unsafe, the main can be re-flushed and then resampled. If any of the second set of samples is still unsafe, the water main must be re-chlorinated, flushed, and resampled until satisfactory results are obtained.

A fee of $75.00 will be charged for sampling up to four sample points on the same project at the same time. This covers both days. Additional samples on the same project at the same time will be taken at $15.00 per sample point.

C.1.12 Abandonment

Salvage all mechanical joint valves and fittings, hydrants, and valve boxes in immediate area of tie-in to existing mains, or as otherwise noted on the drawings; including sections of ductile iron pipe and iron valve boxes and covers, if in reasonably good shape, for pick up by Sheboygan Water Utility. Any pipe, if being abandoned, shall be left in place and the ends bulk headed. Any such materials removed in the course of the work, but not being salvaged by Sheboygan Water Utility, are to be properly disposed of, off-site, by contractor. Hydrant lead shall be cut and capped. Hydrants shall be removed 2 feet below grade.

C.1.13 Restoration

All granular backfill trenches for water main and services shall be capped with a minimum 4 inches of base aggregate dense 1 1/4-inch for a drivable surface. Base aggregate material shall be incidental to the water main.

D Measurement

The department will measure 6-Inch, 8-Inch, and 12-Inch PVC Water Main by linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.10	12-Inch PVC Water Main	LF
SPV.0090.11	8-Inch PVC Water Main	LF
SPV.0090.12	6-Inch PVC Water Main	LF

Payment is full compensation for all excavation and disposal of excavated material, except for rock excavation; sawing and breaking pavement; forming foundation; replacing unstable foundation materials; sheeting, shoring, and bracing; dewatering; laying pipe; making connections to new or existing pipe or fixtures; backfilling and compacting; providing and compacting stone bedding, cover material, and granular backfill; trench maintenance; base course; insulation; thrust blocking and water main restraint; polyethylene wrap; tracer wire; utility and lateral crossings; all testing; removal and abandonment of existing water main, hydrants, and associated appurtenances; and restoring the site of the work.

Payment is also full compensation for trenchless installation; traffic control for night closure; and temporary pavement restoration for open cutting outside of work area for the water main.

Payment is also full compensation for exposing existing utilities; locating and excavating, as needed, existing utilities to confirm their location and elevation in order to plan for avoiding interferences in unit prices bid for water main construction; d of pipe support and supporting existing sewers, water main, and all other utilities and laterals; and backfill testing, all sampling costs and testing fees.

65. Water Service, Item SPV.0090.13.

A Description

Furnish and install Water Service according to the requirements of the Standard Specifications for Sewer & Water Construction in Wisconsin (latest edition), as shown on the drawings, and hereinafter provided.

B Materials

Water service installation and repair or replacement piping in street right-of-way shall be either Type “K” soft copper or HDPE. Water service size shall be installed to match the existing service at a minimum or as indicated on the drawings.

Inlet, ball, and outlet sizes of corps are to be of the same size and no smaller than the service size required. Outlets shall be “straight” for service connections. Outlets may be copper flared, especially for air relief assemblies. Compression joints shall provide high pull-out resistance. Corporations (and saddles where used) shall provide electrical continuity from tube to main. Ball style corps are required; plug style are not allowed.

Saddles shall be appropriately sized to fit the pipe. Saddles with iron bodies in particular must have a close range for use on PVC. Outlets shall be AWWA thread.

C Construction

Coordinate scheduling of modifications to individual water services shall be coordinated with the engineer and the property owner well in advance to minimize the duration and inconvenience of shutdowns, with minimum of 24-hour notice given to each property owner (longer notice for commercial customers), by contractor, for each planned service interruption.

Services shall not be connected to the new main until the corresponding section of main has been substantially completed, tested safe, and put in service. To maintain fire protection and customer service, the old main shall be kept in service while making reconnects, and the length and number of shutdowns shall be minimized.

Make a new tap on the main, a minimum of 12 inches away from any taps, fittings, and joints. If the main is PVC, see Section 5.5.8 in the Standard Specifications for Sewer & Water Construction in Wisconsin.

According to City of Sheboygan General Ordinance No. 52-96-97, the Sheboygan Water Utility and/or its contract locator will attempt to line trace the existing water laterals from the water main in the street to the right-of-way line, based on the record information and methods available to it, to the best of its ability. Line tracing will be done once, prior to water main construction. Contractor shall then be responsible for preserving the markings and record locations for use during the service work. The Sheboygan Water Utility, however, does not own the water laterals, nor does it assume responsibility for them.

Place water services where and at the elevation designated by the Sheboygan Water Utility, the City DPW, or the Plumbing Inspector, and all materials shall be furnished and installed according to the City of Sheboygan plumbing code.

All ends on copper tubing shall be reamed to remove any burrs. All service work shall be inspected for proper use of materials and workmanship, adequate depth and location, visually for leaks, measured and recorded, all by the Sheboygan Water Utility's or city's inspector, prior to backfilling.

Permits are not required for service replacements from the main to the curb stop, reconnections, repairs, and/or water main extensions on this project. Permits are not required for electrical grounding work.

Any water service damaged by the contractor shall be properly repaired at the contractor's expense. This work shall meet all State and local plumbing codes.

For reconnection of existing 1 1/4-inch, 1 1/2-inch, or 2-inch laterals from the old main to new, install tapping saddle and corporation of a size equal to or larger than the service itself (Siamese fittings are not allowed). Make a fresh cut on existing service at point of reconnection.

All tapping shall be in conformance to the latest AWWA and UNIBELL requirements and recommendations. Tapping saddles are required for all service taps. On PVC, saddles shall be sized to the exact pipe OD.

PVC pipe shall be tapped not less than 24 inches from the back of a bell or insertion mark, and not less than 36 inches apart. Large taps on PVC 14 inches or greater shall be at least 36 inches from a joint, etc.

For services being lengthened to reach new main, contractor shall be permitted to use a three-part union, installing it a minimum of 2 feet from old main, and adding the same-sized service as the nominal size of the existing, normally going under old main, connecting to the new corporation, and furnishing and installing a piggy-back reducing nut, if necessary. The new extension shall be polywrapped, complete per File No. 52 in the Standard Specifications for Sewer & Water Construction in Wisconsin.

Bedding of water services shall be shown on File No. 50 in the Standard Specifications for Sewer & Water Construction in Wisconsin.

For any new service piping including reconnections, and replacement service, the minimum depth of cover shall be 6 feet. If not feasible, the minimum depth of cover shall be at least 4.5 feet, and those portions less than 6 feet shall be insulated, as per Sections 4.17.0 and 5.5.20 in the Standard Specifications for Sewer & Water Construction in Wisconsin, and herein modified. Caution needs to be taken that the corporation is not tapped too high on the side of the main, and that the first part of the service is insulated if necessary. These requirements shall also be applied to existing water services when and where contractor is explicitly required to insulate.

Tracer wire shall be installed on nonconductive services.

D Measurement

The department will measure Water Service by linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.13	Water Service	LF

Payment is full compensation for locating the service; the service material including sizes up to 2 inches; couplings; corporation; saddle; all excavation and disposal of excavated material, except for rock excavation; sawing and breaking pavement; boring or drilling; forming foundation; replacing unstable foundation materials; sheeting, shoring, and bracing; dewatering; laying pipe; backfilling and compacting; providing and compacting stone bedding, cover material, and granular backfill; trench maintenance; insulation; disconnection from the existing water main; connection to the new water main; connection to the existing water service; polyethylene wrap; tracer wire; grounding rod; utility and lateral crossings; all labor, equipment, and materials required for trenchless installation; traffic control for night closure; temporary pavement restoration for open cutting outside of work area; all testing; and restoring the site of 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 __6___ *(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 __3__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

II. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

III. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. *APPRENTICESHIP TRAINING*

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical 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) At time of bid, ALL prime contractors must submit DBE Commitments on projects with DBE goals, The submittal of the DBE Commitments includes the DT1506 (Commitment to Subcontract to DBE), which can be attached as a PDF or entered digitally into the bid submittal and Attachments A OR quotes from all DBEs included on the Commitment. The prime contractor must submit a signed Attachment A via eSubmit (preferred) or the DBE Alert email box within 24-hours of the bid closing for all quotes submitted at the time of bid. If the assigned DBE contract goal is not met, Form DT1202 (Documentation of Good Faith Effort) and all supplemental DT1202 documentation is due within 24-hours of bid closing. Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment (Section 9).

(2) The Department requires this list of DBE subcontractors from all bidders at time of bid to ensure the lowest possible cost to taxpayers and fairness to other bidders and subcontractors. Bid shopping is prohibited.

(3) The contractor must utilize the specific DBE firms listed in the approved DBE Commitment to perform the work and/or supply the materials for which the DBE firm is listed unless the contractor obtains written consent in advance from WisDOT. The contractor will not be entitled to payment for any work or materials on the approved DBE Commitment that is not performed or supplied by the listed DBE without WisDOT's written consent.

Description

The Wisconsin Department of Transportation is committed to the compliant administration of the DBE Program. The DBE provisions work in tandem with FHWA 1273 and WisDOT's *Standard Specifications for Highway and Structure Construction* and *Construction and Materials Manual*. The WisDOT Secretary is signatory to assurances of department-wide compliance.

The Department assigns the contract DBE goal as a percentage of work items that could be performed by certified DBE firms on the contract. The assigned DBE goal is expressed on the bid proposal as a percentage applicable to the total contract bid amount.

(1) WisDOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned contract DBE goal by subcontracting work to a DBE firm or by procuring services or materials from a DBE firm.

(2) Under the contract, the prime contractor should inform, advise, and develop participating DBE firms to be more knowledgeable contractors who are prepared to successfully complete their contractual agreement through the proactive provision of assistance in the following areas:
- § Produce accurate and complete quotes
- § Understand highway plans applicable to their work
- § Understand specifications and contract requirements applicable to their work
- § Understand contracting reporting requirements

(3) The Department encourages contractors to assist DBE subcontractors more formally by participating in WisDOT's Business Development program as a mentor, coach, or resource. For comprehensive information on the Disadvantaged Business Enterprise Program, visit the Department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

1. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Assigned DBE Contract Goal:** The percentage shown on the cover of the Highway Work Proposal that represents the feasible level of DBE participation for each contract. The goal is calculated using the Engineer's Estimate and DBE Interest Report. Goal assignment includes review of FHWA funds, analyzes bid items for subcontract opportunity and compatibility with DBE certified firm work codes. Additional factors considered include proximity, proportion, and regulations.

b. **Bid Shopping:** In construction law, bid shopping is the practice of divulging a subcontractor's bid to another prospective contractor(s) before or after the award of a contract to secure a lower bid.

c. **DBE:** Disadvantaged Business Enterprise – A for-profit small business concern where socially and economically disadvantaged individuals own at least a 51% interest and control management and daily business operations.

d. **DBE Commitment:** The DBE Commitment is identified in the Commitment to Subcontract to DBE (Form DT1506) and is expressed as the amount of DBE participation the prime contractor has secured. The DT1506, a contract document completed by the bidder, is required to be considered a responsive bidder on an FHWA-funded contract that has an assigned DBE goal. The prime contractor will have the option to submit the DT1506 digitally, as an entry with the bid in Bid Express, or as an attachment to the bid.

e. **DBE Utilization:** The actual participation of a DBE subcontractor on a project. WisDOT verifies DBE utilization through review of the DBE Commitment, payments to subcontractors, and contract documentation. The Prime Contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved DBE Commitment, and those submitted after approved commitment with Attachment A.

f. **Good Faith Effort:** Legal term describing a diligent and honest effort taken by a reasonable person under the same set of facts or circumstances. For DBE subcontracting, the bidder must show that it took all necessary and reasonable steps to achieve the assigned DBE goal by the scope, intensity, and

appropriateness of effort that could reasonably be expected for a contractor to obtain sufficient DBE participation.

g. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

h. **Reasonable Price:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price.

i. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

j. **Tied quote:** Subcontractor quote that groups multiple bid/line items at a bundled/package price with a notation that the items within the quote will not be separated.

2. WisDOT DBE Program Compliance

a. Documentation Submittal

The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A OR quotes from all DBEs included in the Commitment will be submitted at bid by ALL prime contractors. If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) must be submitted within 24-hours of bid closing. Supplemental DT1202 documentation and signed Attachments A from DBEs included in the DBE Commitment are also due within 24-hours of bid closing. Form DT1202, supporting GFE documentation, and signed Attachments A, not submitted at the time of bid, must be submitted through eSubmit (preferred) or to the DBE Alert email box.

**Bidders have the option of submitting the DBE Commitment at the time of bid via direct entry through Bid Express OR with attachment of Form DT1506 (Commitment to Subcontract to DBE). The DBE Commitment entered with bid is the digital form of the DT1506. Separate submission of Form DT1506 is not required if the DBE Commitment is entered in Bid Express. Form DT1202, if applicable, is no longer required to be submitted at time of bid; submit DT1202 within the 24-hour supplemental time frame following bid closing.

Naming conventions: Follow eSubmit instructions, OR when emailing files, use the following language to identify your submission- “Project #, Proposal #, Let date, Business Name, GFE” and “Project #, Proposal #, Let date, Business Name, Attachment A” Email: DBE_Alert@dot.wi.gov

The DBE Office will not certify Good Faith Effort and the Bureau of Project Development will consider the bid nonresponsive if the contractor fails to furnish the DBE Commitment (digitally entered into the bid OR Form DT1506 as an attachment), Attachments A, and Form DT1202 if applicable, as required. See sample forms in the Appendix.

b. Verification of DBE Commitment

The documentation related to DBE subcontract commitment submitted prior to contract award is evaluated as follows:

(1) DBE Goal Met

If the bidder indicates that the contract DBE goal is met, the Department will evaluate the DBE Commitment submitted with bid OR Form DT1506, and Attachments A to verify the actual DBE

percentage calculation. If the DBE Commitment is verified, the contract is eligible for award with respect to the DBE Commitment.

(2) DBE Goal Not Met

a) If the bidder indicates a bid percentage on the DBE Commitment that does not meet the assigned DBE contract goal, the bidder must request alternative evaluation of good faith effort through submission of Form DT1202 (Documentation of Good Faith Effort) within 24-hours of bid including narrative description. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. The Department will review the bidder's DBE Commitment and evaluate the bidder's good faith efforts submission.

b) Following evaluation of the bidder's Good Faith Effort documentation the bidder will be notified that the Department intends to:
   1. *Approve* the request (adequate documentation of GFE has been submitted)- no conditions placed on the contract with respect to the DBE Commitment;
   2. *Deny* the request (inadequate documentation of GFE has been submitted)- the contract is viewed as non-responsive per Wisconsin Standard Specifications for Highway and Structure Construction and will not be executed.

c) If the Department denies the bidder's request, the contract is ineligible for award. The Department will provide a written explanation for denying the request to the bidder. The bidder may appeal the Department's denial (see Section 4).

Supplemental good faith effort documentation must be submitted through eSubmit (preferred) OR to the DBE Office by email at: DBE_Alert@dot.wi.gov. Email naming convention: "Project #, Proposal #, Let date, Business Name, GFE"

3. Department's Criteria for Good Faith Effort Documentation

The Federal-aid Construction Contract Provision, referenced as FHWA-1273, explicitly states that the prime contractor shall be responsible for all work performed on the contract by piecework, station work, or subcontract. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of the contract including assurances of equal employment opportunity laws, DBE regulations, and affirmative action. Compliance encompasses responsible and responsive action, documentation, and good faith effort.

Contractually, all contractors, subcontractors, and service providers on the contract are bound by FHWA 1273 and DBE program provisions. **Prime contractors should encourage subcontractors to utilize DBE firms whenever possible to contribute to the assigned DBE contract goal.**

Bidders are required to document good faith effort. Per 49 CFR Part 26.53, good faith effort is demonstrated in one of two ways. The bidder:

(1) Documents that it has obtained enough DBE participation to meet the goal; OR
(2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed

Appendix A of 49 CFR Part 26 provides guidance concerning good faith efforts. WisDOT evaluates good faith effort on a contract basis just as each contract award is evaluated individually.

The efforts employed by the bidder should be those that WisDOT can reasonably expect a bidder to take to actively and aggressively obtain DBE participation sufficient to meet the DBE contract goal. The Department will only approve demonstration of good faith effort if the bidder documents the quality, quantity, and intensity of the variety of activities undertaken that are commensurate with expected efforts to meet the stated goal.

The Department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort activity. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

a. Solicitation Guidance for Prime Contractors:

(1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use WisDOT-approved DBE outreach tools, including the UCP DBE Directory and the Bid Express Small Business Network to foster DBE participation on all applicable contracts.

(2) As needed, request assistance with DBE outreach and follow-up by contacting the Department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Phone numbers are (414) 438-4584 and/or (608) 267-3849; Fax: (414) 438-5392; E-mail: DBE_Alert@dot.wi.gov

(3) Participate in and document a substantive conversation with at least one DBE firm per Let, to discuss questions, concerns, and any other contract related matters that may be applicable to the DBE firm. Guidelines for this conversation are provided in Appendix A of ASP-3.

(4) Request quotes by identifying potential items to subcontract and solicit. In their initial contacts, contractors are strongly encouraged to include a single page, detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in* Appendix B. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE firms to do work in a prime contractor's area of specialization.

i. Solicit quotes from certified DBE firms who match possible items to subcontract using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which quotes are being sought to DBE_Alert@dot.wi.gov

ii. Acceptable outreach tools include SBN (Small Business Network, see Appendix C): https://www.bidx.com/wi/main, postal mail, email, fax, and phone.

a. Contractors must ask DBE firms for a response in their solicitations. See *Sample Contractor Solicitation Letter,* Appendix B. This letter may be included as an attachment to the sub-quote request.

b. Solicit quotes at least 10 calendar days prior to the letting date to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.

c. A follow up solicitation should take place within 5 calendar days of the letting date. Email and/or SBN are the preferred method for the solicitation.

iii. Upon request, provide interested DBE firms with adequate information about plans, specifications, and the requirements of the contract by letter, information session, email, phone call, and/or referral.

iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit, or insurance if requested.

v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:

a. Email to all prospective DBE firms in relevant work areas

b. Phone call log to DBE firms who express interest via written response or call

c. Fax/letter confirmation

d. Signed copy of record of subcontractor outreach effort

b. Guidance for Evaluating DBE quotes

(1) Quote evaluation practices required to evaluate DBE quotes:

i. Reasonable Price**:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and

non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price. See 49 CFR Part 26, Appendix A. IV.D(2).

(2) Documentation submitted by the prime of the following evaluation is required to evaluate DBE quotes by contractors:

i. Evaluation of DBE firm's ability to perform "possible items to subcontract" using legitimate reasons, including but not limited to, ***a discussion*** between the prime and DBE firm regarding its capabilities prior to the bid letting. If lack of capacity is the reason for not utilizing the DBE firm's quote, the prime is required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area indicated by the NAICS code(s) listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.

a In striving to meet an assigned DBE contract goal, contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

b Additional evaluation - Evaluation of DBE quotes with <u>tied bid items</u>. 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 <u>At the time of bid</u>- if the DBE goal is not met in full, the prime contractor must indicate they will file form DT1202- Documentation of Good Faith Effort within 24-hours of bid submission. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. Supporting documentation for the DT1202 is to include the following:

(1) Solicitation Documentation: The names, addresses, email addresses, and telephone numbers of DBE firms contacted along with the dates of both initial and follow-up contact; electronic copies of all written solicitations to DBE firms. A printed copy of SBN solicitation is acceptable.

(2) Selected Work Items Documentation: Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

(3) Documentation of Project Information provided to interested DBEs: A description of information provided to the DBE firms regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE firm.

(4) Documentation of Negotiation with Interested DBEs: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts.

(5) Documentation of Sound Reasoning for Rejecting DBEs and copies of each quote received from a DBE firm and, if rejected, copies of quotes from non-DBEs for same items.

(6) Documentation of Assistance to Interested DBEs- Bonding, Credit, Insurance, Equipment, Supplies/Materials

(7) Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support: Contact organizations and agencies for assistance in contacting, recruiting, and

providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Naming conventions: eSubmit (preferred) follow instructions OR when emailing files, use the following language to identify your submission- “Project #, Proposal #, Let date, Business Name, GFE” Email: DBE_Alert@dot.wi.gov

If the Good Faith Effort documentation is deemed adequate, the request will be approved and the DBE office will promptly notify the Prime Contractor and Bureau of Project Development.

If the DBE Office denies the request, the Prime Contractor will receive written correspondence outlining the reasons. The Department encourages the Prime Contractor to communicate with DBE staff to clarify any questions related to meeting goals and/or contractor demonstration of good faith efforts.

If the contract is awarded, the Prime Contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved DBE Commitment. No contractor, prime or subsequent tier, shall be paid for completing work assigned to a DBE subcontractor on an approved DBE Commitment unless WisDOT has granted permission for the reduction, replacement, or termination of the assigned DBE in writing. If a prime contractor or a subcontractor on any tier uses its own forces to perform work assigned to a DBE on an approved DBE Commitment, **they will not be paid for the work**. Any changes to DBE Commitment after the approval of the DBE Commitment must be reviewed and approved by the DBE Office prior to the change (see Section 9).

4. Bidder's Documentation of Good Faith Effort Evaluation Request Appeal Process

A bidder can appeal the Department's decision to deny the bidder’s demonstration of Good Faith Effort through Administrative Reconsideration. The bidder must provide a written justification refuting the specific reasons for denial as stated in the Department's denial notice. The bidder may meet in person with the Department if so requested. Failure to appeal within 5 business days after receiving the Department's written notice denying the request constitutes a forfeiture of the bidder's right of appeal. Receipt of appeal is confirmed by email date stamp or certified mail signed by WisDOT staff. A contract will not be executed without documentation that the DBE provisions have been fulfilled.

The Department will appoint a representative who did not participate in the original good faith effort determination, to assess the bidder's appeal. The Department will issue a written decision within 5 business days after the bidder presents all written and oral information. In that written decision, the Department will explain the basis for finding that the bidder did or did not demonstrate an adequate good faith effort to meet the contract DBE goal. The Department's decision is final.

5. Determining DBE Eligibility

Directory of DBE firms

a. The only resource for DBE firms certified in the State of Wisconsin is the Wisconsin Unified Certification Program (UCP) DBE Directory. WisDOT maintains a current list of certified DBE firms at: http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE Program office is available to assist with contracting DBE firms:(608) 267-3849.

c. DBE firms are certified based on various factors including the federal standards from the Small Business Administration that assigns a North American Industrial Classification (NAICS) Codes. DBE firms are only eligible for credit when performing work in their assigned NAICS code(s). If a DBE subcontractor performs work that is not with its assigned NAICS code, the prime contractor should contact the DBE Office to inquire about compatibility with the Business Development Program.

6. Counting DBE Participation

Assessing DBE Work

The Department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the UCP agencies. The Department only counts the value of the work a DBE actually performs towards the DBE goal. The Department assesses the DBE work as follows:

a. The Department counts work performed by the DBE firm's own resources. The Department includes the cost of materials and supplies the DBE firm obtains for the work. The Department also includes the cost of equipment the DBE firm leases for the work. The Department will not include the cost of materials, supplies, or equipment the DBE firm purchases or leases from the prime contractor or its affiliate, with the exception of non-project specific leases the DBE has in place before the work is advertised.

b. The Department counts fees and commissions the DBE subcontractor charges for providing bona fide professional, technical, consultant, or managerial services. The Department also counts fees and commissions the DBE charges for providing bonds or insurance. The Department will only count costs the program engineer deems reasonable based on experience or prevailing market rates.

c. If a DBE firm subcontracts work, the Department counts the value of the work subcontracted to a DBE subcontractor.

d. The contractor will maintain records and may be required to furnish periodic reports documenting its performance under this item.

e. It is the Prime Contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

f. It is the Prime Contractor's responsibility to assess the DBE firm's ability to perform the work for which it is committing/contracting the DBE to do. Note that the Department encourages the Prime Contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

g. The Prime Contractor will inform the DBE office via email of all DBE subcontractors added to the project following execution of the contract. The Prime Contractor may omit submission of another form DT1506, but must submit signed Attachment A forms for additional DBE firms.

h. See Section 7 for DBE credit evaluation for Trucking and Section 8 for DBE credit evaluation for Manufacturers, Suppliers, and Brokers

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, Attachment A" Email: DBE_Alert@dot.wi.gov

*Note: A sublet request is required for DBE work, regardless of subcontract tier, and also for reporting materials or supplies furnished by a DBE.

- Sublet Requests via form DT1925 or WS1925 are required for 1st Tier DBEs
- For all 2nd Tier and below notification of DBE sublet is indicated by the contractor entering them in CRCS

7. Credit Evaluation for Trucking

All bidders are expected to adhere to the Department's current trucking policy posted on the HCCI website at: http://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) Supplies purchased in bulk from DBE firms at the beginning of the season may be credited to current contracts if submitted with appropriate documentation to the DBE office.

(2) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

(3) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.

(4) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:

i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

(5) When DBE suppliers are contracted, additional documentation must accompany the DBE Commitment and Attachment A forms. An invoice or bill-of-sale that includes names of the bidder and the DBE supplier, along with documentation of the calculations used as the basis for the purchase agreement, subcontract, or invoice. WisDOT recognizes that the amount on the Attachment A form may be more or less than the amount on the invoice per b.(1) above.

i. The bidder should respond to the following questions and include with submission of form DT1506 or the DBE Commitment entered with bid:
   a. What is the product or material?
   b. Is this item in the prime's inventory or was the item purchased when contract was awarded?
   c. Which contract line items were referenced to develop this quote?
   d. What is the amount of material or product used on the project?

c. Brokers, Transaction 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

10. Commercially Useful Function

a. Commercially Useful Function (CUF) is evaluated after the contract has been executed, while the DBE certified firm is performing contracted work items.

b. The Department uses Form DT1011, DBE Commercially Useful Function Review and Certification to evaluate if the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE firm is performing a commercially useful function if the following conditions are met:

(1) For contract work, the DBE is responsible for executing a distinct portion of the work and is carrying out its responsibilities by actually performing, managing, and supervising that work.

(2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for DBE Primes

WisDOT calculates DBE credit based on the amount and type of work performed by DBE certified firms for work submitted with required documentation. If the prime contractor is a DBE certified firm, the Department will only count the work that the DBE prime performs with its own forces for DBE neutral credit. The Department will also calculate DBE credit for work performed by any other DBE certified subcontractor, DBE certified supplier, and DBE certified manufacturer on the contract in each firm’s approved NAICS code/work areas that are submitted with required documentation. Crediting for manufacturers and suppliers is calculated consistent with Section 8 of this document and 49 CFR Part 26.

12. Joint Venture

If a DBE performs as a participant in a joint venture, the Department will only count the portion of the total dollar value of the contract equal to the portion of the work that the DBE performs with its own forces, for DBE credit.

13. Mentor-Protégé

a. If a DBE performs as a participant in a mentor-protégé agreement, the Department will credit the portion of the work performed by the DBE protégé firm.

b. DBE credit is evaluated and confirmed by the DBE Office for any contracts on which the mentor-protégé team identifies itself to the DBE Office as a current participant of the Mentor-Protégé Program.

c. Refer to WisDOT’s Mentor-Protégé guidelines for guidance on the number of contracts and amount of DBE credit allowed on WisDOT projects.

14. Use of Joint Checks

The use of joint checks is allowable if it is a commonly recognized business practice in the material industry. A joint check is defined as a two-party check between a DBE subcontractor, a prime contractor, and the regular dealer or materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE firm in cases where the DBE subcontractor and materials have been approved for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE firm is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE firm must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime Contractor must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
- **(1)** Request should be made when the DBE Commitment or the Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
- **(2)** Approval/Permission must be granted prior to the issuance of any joint checks.
- **(3)** The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
- **(4)** The joint check for supplies must be strictly for the cost of approved supplies.

b. The DBE subcontractor is responsible for furnishing and/or installing the material/work item and is not an ‘extra participant’ in the transaction. The DBE firm’s role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor’s tasks should include the following:
- **(1)** The DBE subcontractor (not the prime/payor) negotiates the quantities, price, and delivery of materials.
- **(2)** The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor.
- **(1)** The Prime Contractor agrees to furnish the check used for the payment of materials/supplies under the contract.
- **(2)** The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractor’s negotiated unit price.

15. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

Appendix A
Substantive Conversation Guidelines

The substantive conversation is critical to all bidders' demonstration of good faith effort to meet the DBE goal prior to bid opening. Relationship building between primes and subcontractors is crucial to DBE goal attainment. Responsible bidders seek to build rapport with potential DBE subcontractors to understand capacity, areas of expertise, and assess contracting feasibility. Bidders who compete for WisDOT contracts are specialty contractors responding to a growing and changing contract environment. Just as these specialists are responsible for care of the roads, they are likewise responsible for contributing to the health of the industry. The substantive conversation drives collaboration that will build industry health and capacity. The following is intended to provide guidance for such discussions but is not an exhaustive list. Contractors are encouraged to incorporate their existing strategies for cultivating business relationships as well.

<u>Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released 5 weeks prior to each Let)</u>

- Determine DBE subcontractor's interest in quoting
- If response indicates inexperience with quoting- offer support/assistance to the DBE in understanding the industry including fundamentals a subcontractor needs to know, required reading and/or resources.
- Assess their interest and experience in the road construction industry by asking questions such as:
  1. Have you competed for other WisDOT contracts? Ratio of competed/to wins
  2. Have you performed on any transportation industry contracts (locally or with other states)?
  3. What the largest contract you've completed?
  4. Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
  5. Does this project fit into your schedule? Are you working on any contracts now?
  6. Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
  7. What region do you work in? Home base?
  8. Which line items are you considering?
  9. Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
  10. Do you understand where your work fits in the project schedule, project phases?

<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 requirement

GFESAMPLE MEMORANDUM

TO: DBE FIRMS
FROM: POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT: **REQUEST FOR DBE QUOTES**
LET DATE & TIME
DATE: MONTH DAY YEAR
CC: DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days.

Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at http://roadwaystandards.dot.wi.gov/hcci/
All questions should be directed to:

Project Manager, John Doe, Phone:
(000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTE

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ¨ Yes, we will be quoting on the projects and items listed below
- ¨ No, we are not interested in quoting on the letting or its items referenced below
- ¨ Please take our name off your monthly DBE contact list
- ¨ We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person:	DBE Contractor Contact Person:
Phone: _____	Phone: _____
Fax: _____	Fax: _____
Email: _____	Email: _____

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clearing and Grubbing	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

Appendix C
Small Business Network (SBN) Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for later completion.
2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE preferred request.
    d. Add attachments to sub-quotes.
3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.
4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. **DBE firms can:**

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes. c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.
5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.
6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select “Order Bid Express.” The Small Business Network is a part of the Bid Express Basic Service.
    b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-458

APPENDIX D

Good Faith Effort Evaluation Measures *by categories referenced in DBE regulations*

Bidders must demonstrate that they took all necessary and reasonable steps to achieve the assigned DBE contract goal. For each contract, all bidders must submit documentation indicating the goal has been met or if falling short of meeting the assigned goal, must request a DBE Goal Waiver and document all efforts employed to secure DBE subcontractor participation on Form DT1202.

DBE staff analyze the bidder's documented good faith efforts to determine if action taken was sufficient to meet the goal. Sufficiency is measured contract-by-contract. WisDOT evaluates active and aggressive efforts, quality, quantity, scope, intensity, and appropriateness of the bidder's efforts as a scale of the principles of Good Faith outlined in 49 CFR Part 26, Appendix A. Additional emphasis is placed on the bidder's demonstration of timely submission of documentation and communication with DBE subcontractors, and business development initiatives undertaken to support DBE firm growth.

The following is a sample of good faith effort activities that are rated according to the accompanying rubric. Contractors are encouraged to identify additional activities that align with their business type(s).

- Personal, tailored solicitation to firms that specialize in work types planned or desired for subcontracting
- Follow up to initial solicitation via email or phone
- Substantive conversation including topics such as contract liability, critical path work items, schedule risks, and potential profit/loss
- SBN utilization including posting quotes
- Review and response to DBE quotes including provision of information about plans, specifications,and requirements as applicable
- Documentation requesting subcontractors support DBE goal by solicitation and inclusion of DBE subcontractor quotes
- Responsive and timely submission of organized documentation
- Analysis of number of DBE firms who do work types that you typically subcontract
- Analysis of number of DBE firms who reside in geographical areas where prime seeks work
- Analysis of firms who express interest in bidding/quoting including the number of firms who declined your solicitation
- Reference check of DBE subcontractor work or training (documentation of questions and response required)
- Number of different efforts undertaken to meet the assigned DBE goal as documented in accompanying Form DT1202
- Submission of all DBE quotes received matched with a variety of work to be performed by DBEs
- Number and names of DBE firms provided written advice, or referral to industry-specific business development resources
- Overall pattern of DBE utilization on all WisDOT contracts which may include contracting with municipalities
- Documentation of resources expended to meet assigned DBE goal (#of hours, staff titles, average pay rate, actions taken)
- Analysis of subcontractable work items to be completed by prime beyond prime contractor's 30%
- Risk analysis of work items that are typically in tied quotes that could be unbundled
- List of contract work items in smallest economically feasible units, identifying schedule impact
- Submission of a Gap Analysis identifying DBE skillset and/or industry needs
- Staff training in EEO and Civil Rights laws as documented in training logs
- Written Capacity Assessment completed with DBE firm documenting its ability to perform the work quoted
- DBE engagement efforts beyond simple solicitation that include a substantive discussion, initiated as early in the acquisition process as possible (*points added for each day prior to letting*)
- Outreach and marketing efforts with minority, women, and veteran-focused organizations at least 10 days prior to bid opening
- Active involvement in WisDOT's Business Development Program, TrANS training, facilitated networking efforts, workshops
- Customized teaching/training efforts for future opportunities with DBE subcontractor, contract specific and/or annually
- Introduction and reference provided for DBE subcontractor to a prime who has not previously contracted with the DBE firm
- Prime utilization of a DBE subcontractor the prime has not contracted with previously
- Written referral/recommendation to bond/insurance agents, manufacturer, supplier
- Documented efforts fostering DBE participation through administrative and/or technical assistance
- Evidence of negotiation with the DBE firm about current and future Let opportunities
- Recommendation of local and state services that support small business and access to opportunity: DOA, SBA, WEDC, WPI, etc.
- Advice on bonding, lines of credit, or insurance as required to complete the items quoted and contract requirements

GFE EVALUATION RUBRIC – PHASE 1

	Active & Aggressive Category	Quality Category	Quantity Category	Scope & Intensity Category	Timing Category	Business Develop't Efforts	Total=
Solicitation Documentation							
Selected Work Items Documentation							
Documentation of Project Information provided to Interested DBEs							
Documentation of Negotiation with Interested DBEs							
Documentation of Sound Reason for Rejecting DBEs							
Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials							
Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support							
Documentation of other GFE activities							
Overall Total=							

GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review

ACTIVE & AGGRESSIVE: Demonstrated through engaged and assertive activity
QUALITY: Demonstrated through essential character of conscientious and serious activity
QUANTITY: Demonstrated through a measurable number of activities
SCOPE & INTENSITY: Demonstrated through a rigorous approach to an appropriate and purposeful range of activities
TIMING: Demonstrated through engagement efforts beyond simple solicitation, initiated early in the process
BUSINESS DEVELOPMENT INITIATIVES: Demonstrated by efforts to support business growth and health of DBEs

Rating Scale

- **Each qualifying activity is worth 5 points per Category**
  - **Pro Forma efforts= 0-50 points**
    Perfunctory effort characterized by routine or superficial activities
  - **Bona Fide= 55+ points**
    Genuine effort characterized by sincere and earnest activities

GFE EVALUATION – PHASE 2 – Team Review

DBE Office completes:

- Review of quote comparisons submitted by Prime
- Bid analysis to confirm if any bid submitted met the DBE goal
- Review average of other bidders DBE goal achievement
- Team review of combined efforts documented in Phase 1 and 2 by apparent low bidder

Excerpt from Appendix A to 49 CFR Part 26:

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)((vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

APPENDIX E
Good Faith Effort Best Practices

This list is not a set of requirements; it is a list of potential strategies

Primes

- Ø Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Ø Participate in speed networking and mosaic exercises as arranged by DBE office.
- Ø Host information sessions not directly associated with a bid letting.
- Ø Participate in a formal mentor protégé or joint venture with a DBE firm.
- Ø Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Ø Facilitate a small group DBE ‘training session’ clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Ø Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Ø Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- Ø DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Ø Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Ø Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list and bid tabs at a minimum.
- Ø Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Ø Participate in DBE office assessment programs.
- Ø Participate on advisory and mega-project committees.
- Ø Sign up to receive the DBE Contracting Update.
- Ø Consider membership in relevant industry or contractor organizations.
- Ø Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.

APPENDIX F
Good Faith Effort Evaluation Guidance
Appendix A of 49 CFR Part 26

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. (1) 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

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

Official Form DT1506 can be found here: www.wisconsindot.gov/DBEcontracting

DOCUMENTATION·OF·GOOD·FAITH·EFFORT·

Wisconsin·Department·of·Transportation
DT1202·····3/2020

Project·ID	Proposal·No.	Letting
·····	·····	·····
Prime·Contractor		County
·····		·····
Person·Submitting·Document		Telephone·Number
·····		·····
Address		Email·Address
·····		·····

All·bidders·must·undertake·necessary·and·reasonable·steps·to·achieve·the·assigned·DBE·contract·goal·per·federal·regulatory·guidance·at·49·CFR·Part·26.·Bidders·use·this·form·to·document·all·efforts·employed·to·meet·the·assigned·goal·as·a·record·of·contractor·good·faith·efforts·(GFE).·Refer·to·ASP3·or·49·CFR·Part·26·for·guidance·on·actions·that·demonstrate·good·faith·effort.·

It·is·critical·to·list·all·efforts,·attach·documentation,·and·follow·the·instructions·to·complete·this·submission.·Documentation·of·good·faith·effort·includes·copies·of·each·DBE·and·non-DBE·subcontractor·quote·submitted·to·the·bidder·for·the·same·line·items.·Utilize·the·sample·documentation·logs·to·document·and·organize·efforts.··

Submit·good·faith·effort·documentation·per·ASP-3·guidelines.

Instructions:·Provide·a·narrative·description·of·all·activities·pursued·to·demonstrate·good·faith·efforts,·any·corresponding·documentation,·and·applicable·explanation·on·separate·pages.·Include·the·following·items,·organized·in·the·order·listed·below.

1.→ **Solicitation·Documentation:**·
   - **a.→ Purpose:**·To·identify·all·reasonable·and·available·activities·the·bidder·performed·to·solicit·the·interest·of·all·certified·DBEs·who·have·the·capacity·and·ability·to·perform·work·on·the·project.·All·solicitation·efforts·should·begin·as·early·as·possible·to·ensure·DBEs·have·ample·time·to·respond·and·ask·questions.

   - **b.→ Action:**·Identify·and·list·all·activities·engaged·in·to·solicit·DBEs·using·all·reasonable·and·available·means·such·as·written·notice·and·follow-up·communications;·substantive·conversations;·pre-bid·meetings;·networking·events;·market·research;·advertising.

2.→ **Selected·Work·Items·Documentation:**·
   - **a.→ Purpose:**·To·ensure·that·all·work·items·are·broken·out·into·economically·feasible·units·to·facilitate·DBE·participation.·This·must·occur·even·when·you·prefer·to·perform·the·work·yourself.

   - **b.→ Action:**·Identify·economically·feasible·work·units·to·be·performed·by·DBEs·to·include·activities·such·as:·list·of·work·items·to·be·performed;·breaking·up·of·large·work·items·into·smaller·tasks·or·quantities;·flexible·time·frames·for·performance·and·delivery·schedules.

3.→ **Documentation·of·Project·Information·provided·to·Interested·DBEs:**·
   - **a.→ Purpose:**·To·provide·interested·DBEs·with·adequate·information·about·the·plans,·specifications,·and·any·other·contractual·requirements·in·a·timely·manner·to·assist·DBEs·in·response·to·solicitation.

   - **b.→ Action:**·Provide·DBEs·access·to·plans,·specifications,·and·other·contract·requirements.·Early·solicitation·allows·ample·opportunity·to·provide·project·information,·links·to·Let·advertisements,·and·substantive·engagement·with·DBEs.

4. **Documentation of Negotiation with Interested DBEs:**
   a. **Purpose:** To ensure that negotiations with interested DBEs were made in good faith providing evidence as to why agreements could not be reached for DBEs to perform work.

   b. **Action:** Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts. A bidder using good business judgment considers a number of factors in negotiating with all subcontractors, and the firm's price and capabilities in addition to contract goals are taken into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for failing to meet the DBE goal as long as costs are reasonable. (see 49 CFR Part 26 Appendix A)

5. **Documentation of Sound Reason for Rejecting DBEs:**
   a. **Purpose:** To ensure that bidders avoid rejecting DBEs as unqualified without sound reasons. Reasons for rejection must be based on thorough investigation of DBE capabilities.

   b. **Action:** Provide sufficient evidence to demonstrate that DBE was rejected for sound reasons such as past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, other tangible factors.

6. **Documentation of Assistance to Interested DBEs - Bonding, Credit, Insurance, Equipment, Supplies/Materials:**
   a. **Purpose:** To assist interested DBEs in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, and other assistance or services.

   b. **Action:** Assist interested DBEs in obtaining bonding, lines of credit or insurance, and provide technical assistance or information related to plans, specifications, and project requirements. Assist DBEs in obtaining equipment, supplies, materials or other services related to meeting project requirements (excluding supplies or equipment the DBE purchases from the prime).

7. **Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support:**
   a. **Purpose:** To effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well as participation in activities that support DBE business development.

   b. **Action:** Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Return to:
Wisconsin Department of Transportation
DBE Program Office
PO Box 7965
Madison, WI 53707-7965
DBE_Alert@dot.wi.gov

I certify that I have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, as demonstrated by my responses and as specified in Additional Special Provision 3 (ASP-3).

I certify that the information given in the Documentation of Good Faith Efforts is true and correct to the best of my knowledge and belief.

I further understand that any willful falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions, which may involve debarment and/or prosecution under applicable state (Trans 504) and Federal laws.

		(Bidder/Authorized Representative Signature)
		*****
		(Print Name)
		*****
		(Title)

Good Faith Effort -- Sample Documentation Logs

The sample logs below are provided as guides rather than exhaustive list. See ASP3, Appendix A for additional examples of demonstrable good faith efforts. Attach documentation for each activity listed.

Acceptable forms of documentation include copies of solicitations sent to DBEs, notes from substantive conversations and negotiations with DBEs, copies of advertisements placed, email communications, all quotes received from DBEs and from all subcontractors who were considered alongside DBE quotes, proof of attendance at applicable networking events; flyers for events or workshops for DBEs offered by the prime, and other physical records of good faith efforts activities.

SOLICITATION LOG

Date	Activity	Name of DBE Solicited	Follow-up
4/1/2020	Sent May Let solicitation	Winterland Electric	Spoke with Mark Winterland on 4/15/20 to ask if he would quote

SELECTED WORK ITEMS SOLICITED LOG

Work Type	DBE Firm	Contact Person	Date	Contact Mode
Pavement Marking	ABC Marking	Leslie Lynch	4/1/2020	Email; phone
	#1 Marking Co.	Mark Smart	4/1/2020	Email; left VM
Electrical	Winterland Electric	Tabitha Tinker	4/3/2020	Email, left VM
	Superstar Wiring	Jose Huascar	4/3/2020	Email; phone

INFORMATION PROVIDED LOG

Request Date	DBE Firm	Information Requested & Provided	Response Date
4/1/2020	Winterland Electric	Requested info on electrical requirements; provided plan and link to specs	4/3/2020
4/21/2020	Absolute Construction	Wanted to know how and when supplies are paid for by WisDOT; referred to spec that covers stockpiling	4/21/2020

NEGOTIATIONS LOG

Date	DBE Firm	Contact Name	Work Type	Quotes Rec'd?	Considered for project?	If not selected, why?
4/12/2020	ABC Landscape	John Dean	Erosion Control	Yes	No	Cannot perform all items
4/17/2020	Wild Ferns	Sandy Lynn	Erosion Control	Yes	Yes	
4/20/2020	#1 Marking	Mark Smart	Electrical	Yes	Yes	

ASSISTANCE LOG

Date	DBE Firm	Contact Person	Assistance Provided
4/1/2020	ABC Sawing	Jackie Swiggle	Informed DBE on how to obtain bonding
4/17/2020	Supreme Construction	Winston Walters	Provided contact for wholesale supply purchase

OUTREACH & BUSINESS DEVELOPMENT LOG

Date	Agency/Organization Contacted	Contact Person	Assistance Requested
4/1/2020	Women in Construction	LaTonya Klein	Contact information for woman-owned suppliers
4/28/2020	WBIC	Sam Smith	Asked for information to provide to DBE regarding financing programs through WBIC

Official Form DT1202 can be found here: www.wisconsindot.gov/DBEcontracting

ADDITIONAL SPECIAL PROVISION 4

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor is not allowed to withhold retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

415.3.16 Tolerance in Pavement Thickness

Replace the entire text with the following effective with the November 2021 letting:

415.3.16.1 General

(1) Construct the plan thickness or thicker. The department will accept pavement thickness based on the results of department-performed acceptance testing conforming to:

Magnetic Pulse Induction .....CMM 870: ASTM E3209 WTM
Probing.....CMM 870: WTP C-002
Preplacement Measurement .....CMM 870: WTP C-003

415.3.16.2 Pavement Units

415.3.16.2.1 Basic Units

(1) Basic unit is defined as a slip formed, single lane, with a minimum lane width of 10 feet, measured, from the pavement edge to the adjacent longitudinal joint; from one longitudinal joint to the next; or between pavement edges if there is no longitudinal joint.

415.3.16.2.2 Special Units

(2) Establish special units for areas of fillets, intersections, gaps, gores, shoulders, ramps, pavement lanes less than 10 feet wide and other areas not included in basic units.

415.3.16.3 Test Plate Locations

(1) Place department-furnished test plates. Within 5 business days after paving, enter the sequential number and associated position data into MRS available at:

http://www.atwoodsystems.com/

(2) Contractor will maintain plate location markings for 10 business days after paving.

415.3.16.4 Acceptance Testing

415.3.16.4.1 Basic Units

415.3.16.4.1.2 Magnetic Pulse Induction

(1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.

(2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.

(3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.

(4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:

- The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
- The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
- The contractor shall perform coring according to AASHTO T24. The department will evaluate the results according to AASHTO T148
- The contractor shall fill core holes with concrete or mortar.

415.3.16.4.2 Special Units

415.3.16.4.2.1 Magnetic Pulse Induction

(1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.

(2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.

(3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.

(4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the department will measure the second plate in that unit. If both plates are required to be measured, then all six thickness measurements will be averaged for that unit. If the average of the six measurements is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable.

415.3.16.4.2.2 Probing

(1) The department will measure slip form special units during concrete placement. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.

(2) Department will probe 2 random locations within the special unit. The average of the two readings will be the reported measurement for the special unit.

415.3.16.4.2.3 Preplacement Measurement

(1) The department will measure non-slip form special units before concrete placement.

(2) Thickness corrections will be made to a conforming thickness by reshaping the base aggregate before the pavement is placed.

415.5.2 Adjusting Pay for Thickness

Replace the entire text with the following effective with the November 2021 letting:

(1) The department will adjust pay for pavement thickness under the Nonconforming Thickness Concrete Pavement administrative item as follows:

FOR PAVEMENT THINNER THAN PLAN THICKNESS BY:	PERCENT OF THE CONTRACT UNIT PRICE
> 1/4 inch but <= 1/2 inch	80
> 1/2 inch but <= 3/4 inch	60
> 3/4 inch but <= 1 inch	50

(2) When pavement of unacceptable final thickness is determined, as specified in 415.3.16.4, the department will direct the contractor to either:

1. Remove and replace unacceptable concrete pavement to the nearest joint with new concrete pavement of conforming thickness. The department will pay once for the area at the full contract price.
2. If the unacceptable pavement is less than 100 LF, the department may allow the concrete to remain in place without payment for the unacceptable area.

460.2.6 Recovered Asphaltic Binders

Replace paragraph two with the following effective with the November 2021 letting:

(2) The contractor may replace virgin binder with recovered binder up to the maximum percentage allowed under 460.2.5 without further testing. When the design percent asphalt binder replaced exceeds the allowable limits in 460.2.5, the contractor must:

- Document adjustments made to the mix design in the mix design submittal.
- Submit test results that indicate the mixture's asphaltic binder meets or exceeds the upper and lower temperature grade requirements the bid item designates.
    - If only one recycled asphaltic material source is used, furnish one of the following:
        - Test results from extracted and recovered binder from the resultant mixture.
        - Blending charts that indicate the resultant mixture's high and low temperature PG as an interpolation of the percent binder replaced between the virgin binder's and the recycled asphaltic material source binder's high and low temperature PG.
    - If two or more recycled asphaltic material sources are used, furnish test results from extracted and

recovered binder from the resultant mixture.

501.2.6 Water

Retitle with the following effective with the November 2021 letting:

501.2.6 Mixing Water

501.2.6.2 Requirements

Replace paragraph two with the following effective with the November 2021 letting:

(2) Water from other sources must comply with the following:

Acidity, maximum of 0.1N NaOH to neutralize 200 mL of water; CMM 870: WTP C-001	2 mL
Alkalinity, maximum of 0.1N HCL to neutralize 200 mL of water; CMM 870: WTP C-001	15 mL
Maximum sulphate ($S0_4$); CMM 870: WTP C-001	0.05 percent
Maximum chloride; CMM 870: WTP C-001	0.10 percent
Maximum total solids; CMM 870: WTP C-001	
Organic	0.04 percent
Inorganic	0.15 percent

501.3.2.4.2 Air Entrainment

Replace paragraph two with the following effective with the November 2021 letting:

(2) Test fresh concrete air content according to AASHTO T152 or AASHTO TP118 at the contract-required frequency and as the engineer directs. Test concrete placed by pumping or belting at the point of discharge from the pump line or belt.

501.3.7.1 Slump

Replace paragraph one with the following effective with the November 2021 letting:

(1) Use a 1-inch to 4-inch slump for concrete used in structures or placed in forms, except as follows:

- Do not exceed a slump of 2 inches for grade E concrete.
- Increase slump as specified in 502.3.5.3 for concrete placed underwater.
- If BTS approves a concrete mixture using a superplasticizer, the contractor may increase slump for that mixture to a maximum of 9 inches without exceeding the maximum mix water allowed for that grade.

531.5 Payment

Replace paragraph two with the following effective with the November 2021 letting:

(2) Payment for Concrete Masonry Ancillary Structures Type NS is full compensation for providing concrete for non-standard sign structure foundations; and for anchor rod assemblies. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

Replace paragraph five with the following effective with the November 2021 letting:

(5) Payment for the Foundation bid items is full compensation for providing concrete foundations; for anchor rod assemblies; for reinforcing steel; and for embedded conduit and electrical components. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

642.2.2.1 General

Replace paragraph one with the following effective with the November 2021 letting:

(1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved. Ensure quality cell phone reception is achievable inside the field office.

701.3.1 General

Replace table 701-1 with the following effective with the November 2021 letting:

TABLE 701-1 TESTING AND CERTIFICATION STANDARDS

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 830.9.2	Transportation Materials Sampling Technician (TMS) TMS Assistant Certified Technician (ACT-TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2[1] [4]	TMS, ACT-TMS, AGGTECT-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11[1]	AGGTEC-I, ACT-AGG
Fine & coarse aggregate gradation	AASHTO T27[1]	
Aggregate moisture content	AASHTO T255[1]	
Fractured faces	ASTM D5821[1]	
Liquid limit	AASHTO T89	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Plasticity index	AASHTO T90[3]	
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152[2] AASHTO TP118[5]	
Air void system of fresh concrete	AASHTO TP118[5]	
Concrete slump	AASHTO T119[2]	
Concrete temperature	ASTM C1064	
Making and curing concrete specimens	AASHTO T23	
Moist curing for concrete specimens	AASHTO M201	
Concrete compressive strength	AASHTO T22	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Concrete flexural strength	AASHTO T97	
Concrete surface resistivity[2]	AASHTO T358	
Voids in aggregate	AASHTO T19	PCCTEC-II
Profiling	__	PROFILER

[1] As modified in CMM 860.

[2] As modified in CMM 870.

[3] A plasticity check, if required under individual QMP specifications, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

[4] Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

[5] Consolidate by rodding.

710.2 Small Quantities

Replace the entire text with the following effective with the November 2021 letting:

(1) The department defines small quantities as follows:

- As specified in 715.1.1.2 for class I concrete.
- Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.

(2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:

1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
2. Provide one of the following for aggregate process control:
   - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
   - Non-random start-up gradation testing.

710.4 Concrete Mixes

Replace paragraph two with the following effective with the November 2021 letting:

(2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:

1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
2. For cementitious materials and admixtures: type, brand, and source.
3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
    - DT2220 for combined aggregate gradations.
    - DT2221 for optimized aggregate gradations.
4. For optimized concrete mixtures:
    - Complete the worksheets within DT2221 according to the directions.
    - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
    - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
    - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

Replace paragraph four with the following effective with the November 2021 letting:

(4) Prepare and submit modifications to a concrete mix to the engineer for approval 3 business days before using that modified mix. Modifications requiring the engineer's approval include changes in:

1. Source of any material. For paving and barrier mixes, a source change for fly ash of the same class does not constitute a mix design change.
2. Quantities of cementitious materials.
3. Addition or deletion of admixtures. Minor admixture dosage adjustments required to maintain air content or slump do not require engineer review or approval.

710.5.5 Strength

Replace paragraph one with the following effective with the November 2021 letting:

(1) Cast all 6" x 12" cylinders or all 6" x 6" x 21" beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and sublot or location on the project it represents.

710.5.6 Aggregate Testing

Retitle and replace the entire text with the following effective with the November 2021 letting:

710.5.6 Aggregate Testing During Concrete Production

710.5.6.1 General

(1) The department will accept gradation based on the results of department-performed acceptance testing.

(2) The department and contractor will obtain samples using the same method. When belt sampling, contractor personnel shall obtain samples for the department under the direct observation of the department personnel. Contractor will define sampling method in the QMP or abbreviated QMP.

710.5.6.2 Contractor Control Charts

710.5.6.2.1 General

(1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.

(2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.

(3) Sample aggregates within 2 business days before placement for each mix design. Include this gradation on the control charts.

(4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.

(5) Conduct aggregate testing at the minimum frequency shown based on the anticipated daily cumulative plant production for each mix design. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I

DAILY PLANT PRODUCTION RATE FOR WisDOT WORK	MINIMUM FREQUENCY
Gradation Report Before Placement	
1000 cubic yards or less	one test per day
more than 1000 cubic yards	two tests per day

TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II

MINIMUM FREQUENCY
Gradation Report Before Placement
One test per calendar week of production

710.5.6.2.2 Optimized Aggregate Gradation Control Charts

(1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the following:

- 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- Sum of volumetric percentages retained on No. 8, No. 16, and No. 30 sieves.
- Sum of volumetric percentages retained on No. 30, No. 50, No. 100, and No. 200 sieves.

(2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the volumetric percent retained of the optimized aggregate gradation limits specified in table 501-4.

(3) Throughout the contract, construct a 4-point running average of the volumetric percent retained for each sieve to determine if the blended aggregate gradation is within the tarantula curve limits specified in table 501-4.

710.5.6.2.3 Combined Aggregate Gradation Control Charts

(1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.

(2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the percent passing by weight requirements of the combined aggregate gradation limits specified in table 501-4.

(3) Throughout the contract, construct a 4-point running average of the percent passing by weight for each sieve to determine if the blended aggregate gradation is within the combined aggregate gradation limits specified in table 501-4.

710.5.6.3 Department Acceptance Testing

(1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.

(2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.

(3) The department will obtain the sample and deliver to regional testing lab in the same day. Department will report gradation test results to the contractor within 1 business day of being delivered to the lab. Department and contractor can agree to an alternative test result reporting timeframe; alternative timeframe is required to be documented in the QMP.

(4) Additional samples may be taken at the engineer's discretion due to change in condition.

TABLE 710-3 DEPARTMENT GRADATION TESTING FREQUENCY

CONCRETE CLASSIFICATION	MINIMUM DEPARTMENT FREQUENCY
Class I: Pavement	1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied.
	Reduced frequency: 1 test per calendar week of placement
Class I: Structures	1 test per 250 CY placed - Minimum of 1 test per substructure - Minimum of 1 test per superstructure

Class I: Cast-in-Place Barrier	1 test per 500 CY placed
Class II	No minimum testing

710.5.7 Corrective Action

Replace the entire text with the following effective with the November 2021 letting:

710.5.7.1 Optimized Aggregate Gradations

(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, do the following:

1. Notify the other party immediately.
2. Perform corrective action documented in the QC plan or as the engineer approves.
3. Document and provide corrective action results to the engineer as soon as they are available.
4. Department will conduct two tests within the next business day after corrective action is complete.
5. If blended aggregate gradations are within the tarantula curve limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, 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.
6. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
    - Provide a new mix design with an increased cementitious content.
    - If the mix design already has a cementitious content of 565 or more pounds per cubic yard, provide a new mix design.
    - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a new mix design.

(2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.

(3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

710.5.7.2 Combined Aggregate Gradations

(1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:

1. Notify the other party immediately.
2. Perform corrective action documented in the QC plan or as the engineer approves.
3. Document and provide corrective action results to the engineer as soon as they are available.
4. Department will conduct two tests within the next business day after corrective action is complete.
5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, 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.
6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.

(2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.

(3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

715.3.1.1 General

Replace paragraphs three and four with the following effective with the November 2021 letting:

(3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:

- 20,000 square yards for pavements.
- 5,000 linear feet for barriers.
- 500 cubic yards for structure concrete.

Submit the resistivity to the nearest tenth into MRS for information only. Resistivity testing is not required for the following:

- Lot with less than 3 sublots.
- Concrete items classified as ancillary.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls

(4) Test the air void system at least once per lot and enter the SAM number in MRS for information only. SAM testing is not required for the following:

- For lots with less than 3 sublots.
- High early strength (HES) concrete.
- Special high early strength (SHES) concrete.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls
  - Steel Grid Floor Concrete Filled
  - Crash Cushions Permanent
  - Crash Cushions Permanent Low Maintenance
  - Crash Cushions Temporary

715.3.1.2.3 Lots by Cubic Yard

Replace the entire text with the following effective with the November 2021 letting:

(1) Define standard lots and sublots conforming to the following:

TABLE 715-1 CLASS I - LOT AND SUBLOT SIZES

CONCRETE CLASSIFICATION	LOT SIZE	SUBLOT SIZE	NUMBER OF SUBLOTS PER LOT
Class I: Pavement	1250 cubic yards	250 cubic yards	5
Class I: Structures	250 cubic yards	50 cubic yards	5
Class I: Cast-in-Place Barrier	500 cubic yards	100 cubic yards	5

(2) The contractor may include sublots less than or equal to 25 percent of the standard volume in the previous sublot. For partial sublots exceeding 25 percent of the standard volume, notify the engineer who will direct additional testing to represent that partial sublot.

(3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 3 or more sublots for that lot.

715.3.2 Strength Evaluation

Replace the entire text with the following effective with the November 2021 letting:

715.3.2.1 General

(1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.

(2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
- If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

715.3.2.2 Removal and Replacement

715.3.2.2.1 Pavement

(1) If a sublot strength is less than 2500 psi in compressive strength or 500 psi in flexural strength, the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal.

(2) If the engineer directs coring, obtain three cores from the sublot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24.

(3) Have an independent consultant test cores according to AASHTO T24.

(4) The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.

(5) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi or greater.

(6) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

715.3.2.2.2 Structures and Cast-in-Place Barrier

(1) The department will evaluate the sublot for possible removal and replacement if the 28-day sublot average compressive strength is lower than f'c minus 500 psi. The value of f'c is the design stress the plans show. The department may assess further strength price reductions or require removal and replacement only after coring the sublot.

(2) The engineer may initially evaluate the sublot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the sublot at the previously determined pay for the lot, or direct the contractor to core the sublot.

(3) If the engineer directs coring, obtain three cores from the sublot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel.

(4) Have an independent consultant test cores according to AASHTO T24.

(5) The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.

(6) If the 3-core average is greater than or equal to 85 percent of f'c, and no individual core is less than 75 percent of f'c, the engineer will accept the sublot at the previously determined pay for the lot. If the 3-core average is less than 85 percent of f'c, or an individual core is less than 75 percent of f'c, the engineer may require the contractor to remove and replace the sublot. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

715.3.3 Aggregate

Replace the entire text with the following effective with the November 2021 letting:

715.3.3.1 General

(1) Except as allowed for small quantities in 710.2, test aggregate conforming to 710.5.6.

715.3.3.2 Structures

(1) In addition to the aggregate testing required under 710.5.6, determine the fine and coarse aggregate moisture content for each sample.

(2) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design w/cm ratio.

715.5 Payment

Replace the entire text with the following effective with the November 2021 letting:

715.5.1 General

(1) The department will pay incentive for compressive 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 pay factor that is calculated from the equations in 715.5.2(2) and 715.5.3(2) will be applied to the unit costs listed below:

- Pavement: $45 per SY.
- Structure: $635 per CY.
- Cast-in-place barrier: $75 per LF.

(5) 28-day strength average for a lot is the average of the individual sublot strengths within the given lot.

(6) 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.

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

(8) 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 Compressive Strength

(1) The department will measure PWL relative to strength lower specification limits as follows:

- Compressive strength of 3700 psi for pavements.
- Compressive strength of 4000 psi for structures and cast-in-place barrier.

(2) The department will adjust pay for each lot using equation "Comp2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	(1/5 x PWL) + 82
>= 85 to < 90	100
>= 50 to < 85	(5/7 x PWL) + (275/7)
< 50	50[1]

[1] Any material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

(3) The department will not pay incentive if the lot standard deviation is greater than the following:

- 400 psi for pavement.
- 350 psi for structure and cast-in-place barrier

(4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average compressive strength below the following:

- 3700 psi for pavements.
- 4000 psi for structures and cast-in-place barrier.

715.5.3 Flexural Strength

(1) The department will measure PWL relative to strength lower specification limits as follows:

- Flexural strength of 650 psi for pavements.

(2) The department will adjust pay for each lot using equation "Flex2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	(2/5 x PWL) + 64
>= 85 to < 90	100

>= 50 to < 85	(5/7 x PWL) + (275/7)
< 50	50[1]

[1] Material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

(3) The department will not pay incentive if the lot standard deviation is greater than 60 psi.

(4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average flexural strength below 650 psi.

ERRATA

460.2.2.3 Aggregate Gradation Master Range

Correct errata by adding US Standard equivalent sieve sizes.

(1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

SIEVE	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm) (1 1/2 inch)	No. 2 (25.0 mm) (1 inch)	No.3 (19.0 mm) (3/4 inch)	No. 4 (12.5 mm) (1/2 inch)	No. 5 (9.5 mm) (3/8 inch)	No. 6 (4.75 mm) (3/16 inch)	SMA No. 4 (12.5 mm) (1/2 inch)	SMA No. 5 (9.5 mm) (3/8 inch)
50.0-mm (2-inch)	100							
37.5-mm (1 1/2-inch)	90 - 100	100						
25.0-mm (1-inch)	90 max	90 - 100	100					
19.0-mm (3/4-inch)	___	90 max	90 - 100	100			100	
12.5-mm (1/2-inch)	___	___	90 max	90 - 100	100		90 - 97	100
9.5-mm (3/8-inch)	___	___	___	90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm (No. 4)	___	___	___	___	90 max	90 - 100	25 - 35	35 - 45
2.36-mm (No. 8)	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm (No. 16)	___	___	___	___	___	30 - 55	___	___
0.60-mm (No. 30)	___	___	___	___	___	___	18 max	18 max
0.075-mm (No. 200)	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min[1]	15.0 min[2]	16.0 - 17.5	16.0 min	17.0 min

[1] 14.5 for LT and MT mixes.

[2] 15.5 for LT and MT mixes.

715.5.1 General

Correct the bid item number for Incentive Compressive Strength Concrete Pavement.

(1) The department will pay incentive for compressive 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

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

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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 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective November 2020 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form DT4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form DT4567 is available at:

https://wisconsindot.gov/Documents/formdocs/dt4567.docx

Effective February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Effective with December 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS
FOR PROJECTS WITH FEDERAL AID

I. PREVAILING WAGE RATES

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

II. COVERAGE OF TRUCK DRIVERS

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. https://www.dol.gov/whd/FOH/FOH_Ch15.pdf
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work."
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:
https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf
https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. RESOURCES

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20210010 07/09/2021

Superseded General Decision Number: WI20200010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021
1	03/12/2021
2	03/19/2021
3	04/09/2021
4	05/14/2021
5	07/09/2021

BRWI0001-002 06/01/2020

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.31	24.7 7

BRWI0002-002 06/01/2020

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.77	23.47

BRWI0002-005 06/01/2020

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 36.68	23.40

BRWI0003-002 06/01/2020

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.68	24.40

BRWI0004-002 06/01/2020

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.90	25.53

BRWI0006-002 06/01/2020

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,

ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.60	23.48

BRWI0007-002 06/01/2020

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.07	24.72

BRWI0008-002 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 40.75	24.32

BRWI0011-002 06/01/2020

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.68	24.40

BRWI0019-002 06/01/2020

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 34.86	25.22

BRWI0034-002 06/01/2020

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.36	24.43

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 06/14/2020

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 35.98	20.98

ELEC0014-007 07/05/2020

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 27.75	15.14

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video)

including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2020

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 41.62	30%+12.70

ELEC0158-002 06/01/2020

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a 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	$ 34.77	29.75%+10.26

ELEC0159-003 08/02/2020

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 41.86	22.67

ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes

Electricians:
Electrical contracts over $180,000.....$ 33.94 21.80
Electrical contracts under $180,000.....$ 31.75 21.73

ELEC0242-005 05/31/2020

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	$ 39.77	28.11

ELEC0388-002 06/01/2020

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:.....	$ 34.85	26%+11.20

ELEC0430-002 02/02/2021

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	$ 41.859	22.871

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* ELEC0494-005 06/01/2021

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	$ 44.39	25.67

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* 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

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* 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 06/01/2020

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:	$ 34.23	29.50%+10.00

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* ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,
RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 39.00	25.95%+11.17

ELEC0953-001 06/02/2019

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 47.53	21.43
(2) Heavy Equipment Operator	$ 42.78	19.80
(3) Equipment Operator	$ 38.02	18.40
(4) Heavy Groundman Driver	$ 33.27	16.88
(5) Light Groundman Driver	$ 30.89	16.11
(6) Groundsman	$ 26.14	14.60

ENGI0139-005 06/01/2020

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 41.62	23.80
Group 2	$ 41.12	23.80
Group 3	$ 40.62	23.80
Group 4	$ 40.36	23.80
Group 5	$ 40.07	23.80
Group 6	$ 34.17	23.80

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" protection - $3.00 per hour
EPA Level ""B"" protection - $2.00 per hour
EPA Level ""C"" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or

cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; 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.

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* IRON0008-002 06/01/2021

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 38.77	28.15

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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* 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.

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* IRON0383-001 06/06/2021

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.75	27.06

IRON0498-005 06/01/2019

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 40.25	40.53

IRON0512-008 06/03/2019

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.60	29.40

IRON0512-021 05/03/2021

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 35.09	31.80

LABO0113-002 06/01/2020

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.05	22.26
Group 2	$ 30.20	22.26
Group 3	$ 30.40	22.26
Group 4	$ 30.55	22.26
Group 5	$ 30.70	22.26
Group 6	$ 26.54	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint 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 06/01/2020

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 29.30	22.26
Group 2	$ 29.40	22.26
Group 3	$ 29.45	22.26
Group 4	$ 29.65	22.26
Group 5	$ 29.50	22.26
Group 6	$ 26.39	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint 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 06/01/2020

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 29.11	22.26
Group 2	$ 29.26	22.26
Group 3	$ 29.46	22.26
Group 4	$ 29.43	22.26
Group 5	$ 29.76	22.26
Group 6	$ 26.25	22.26

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint 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 06/01/2020

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,

RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 33.72	17.95
Group 2	$ 33.82	17.95
Group 3	$ 33.87	17.95
Group 4	$ 34.07	17.95
Group 5	$ 33.92	17.95
Group 6	$ 30.35	17.95

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; 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 06/01/2020

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 34.00	17.95
Group 2	$ 34.10	17.95
Group 3	$ 34.15	17.95

Group 4	$ 34.35	17.95
Group 5	$ 34.20	17.95
Group 6	$ 30.35	17.95

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; 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 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 30.33	17.27
Spray, Sandblast, Steel	$ 30.93	17.27
Repaint:		
Brush, Roller	$ 28.83	17.27
Spray, Sandblast, Steel	$ 29.43	17.27

PAIN0108-002 06/01/2019

RACINE COUNTY

	Rates	Fringes
Painters:		

Brush, Roller	$ 36.08	20.36
Spray & Sandblast	$ 37.08	20.36

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2019

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 33.30	23.86
Brush	$ 32.95	23.86
Spray & Sandblast	$ 33.70	23.86

PAIN0802-002 06/01/2019

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 30.93	18.44

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2019

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 30.93	18.58

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 33.74	18.95
Spray	$ 34.74	18.95
Structural Steel	$ 33.89	18.95

PAIN1011-002 06/02/2019

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 25.76	13.33

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET,

CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, 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

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* 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 www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted

because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

August 2018

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least $1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0110 Clearing	251.000 SY	_____.____	_____.____
0004	201.0120 Clearing	14.000 ID	_____.____	_____.____
0006	201.0210 Grubbing	251.000 SY	_____.____	_____.____
0008	201.0220 Grubbing	14.000 ID	_____.____	_____.____
0010	203.0211.S Abatement of Asbestos Containing Material (structure) 01. B-59-0048	1.000 EACH	_____.____	_____.____
0012	204.0100 Removing Concrete Pavement	22,973.000 SY	_____.____	_____.____
0014	204.0110 Removing Asphaltic Surface	136.000 SY	_____.____	_____.____
0016	204.0150 Removing Curb & Gutter	1,419.000 LF	_____.____	_____.____
0018	204.0155 Removing Concrete Sidewalk	813.000 SY	_____.____	_____.____
0020	204.0165 Removing Guardrail	195.000 LF	_____.____	_____.____
0022	204.0190 Removing Surface Drains	2.000 EACH	_____.____	_____.____
0024	204.0195 Removing Concrete Bases	16.000 EACH	_____.____	_____.____
0026	204.0220 Removing Inlets	32.000 EACH	_____.____	_____.____
0028	204.0245 Removing Storm Sewer (size) 01. 8-Inch	29.000 LF	_____.____	_____.____
0030	204.0245 Removing Storm Sewer (size) 02. 10-Inch	83.000 LF	_____.____	_____.____
0032	204.0245 Removing Storm Sewer (size) 03. 12-Inch	900.000 LF	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	204.0245 Removing Storm Sewer (size) 04. 14-Inch	80.000 LF	_____.____	_____.____
0036	204.0245 Removing Storm Sewer (size) 05. 15-Inch	45.000 LF	_____.____	_____.____
0038	204.0245 Removing Storm Sewer (size) 06. 18-Inch	22.000 LF	_____.____	_____.____
0040	204.0245 Removing Storm Sewer (size) 07. 30-Inch	14.000 LF	_____.____	_____.____
0042	204.0245 Removing Storm Sewer (size) 08. 36-Inch	46.000 LF	_____.____	_____.____
0044	204.0280 Sealing Pipes	7.000 EACH	_____.____	_____.____
0046	204.9060.S Removing (item description) 01. Apron Endwalls	11.000 EACH	_____.____	_____.____
0048	204.9060.S Removing (item description) 02. Street Light Poles	7.000 EACH	_____.____	_____.____
0050	205.0100 Excavation Common	18,561.000 CY	_____.____	_____.____
0052	213.0100 Finishing Roadway (project) 01. 4291-02-71	1.000 EACH	_____.____	_____.____
0054	305.0110 Base Aggregate Dense 3/4-Inch	61.000 TON	_____.____	_____.____
0056	305.0120 Base Aggregate Dense 1 1/4-Inch	12,980.000 TON	_____.____	_____.____
0058	305.0130 Base Aggregate Dense 3-Inch	5,790.000 TON	_____.____	_____.____
0060	311.0110 Breaker Run	10,555.000 TON	_____.____	_____.____
0062	415.0080 Concrete Pavement 8-Inch	9,388.000 SY	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	415.0210 Concrete Pavement Gaps	1.000 EACH	_____.____	_____.____
0066	415.0410 Concrete Pavement Approach Slab	578.000 SY	_____.____	_____.____
0068	415.1080 Concrete Pavement HES 8-Inch	200.000 SY	_____.____	_____.____
0070	415.4100 Concrete Pavement Joint Filling	10,911.000 SY	_____.____	_____.____
0072	416.0160 Concrete Driveway 6-Inch	575.000 SY	_____.____	_____.____
0074	416.0260 Concrete Driveway HES 6-Inch	75.000 SY	_____.____	_____.____
0076	416.0610 Drilled Tie Bars	101.000 EACH	_____.____	_____.____
0078	416.0620 Drilled Dowel Bars	60.000 EACH	_____.____	_____.____
0080	416.1010 Concrete Surface Drains	3.000 CY	_____.____	_____.____
0082	455.0605 Tack Coat	1,025.000 GAL	_____.____	_____.____
0084	460.2000 Incentive Density HMA Pavement	1,580.000 DOL	1.00000	1,580.00
0086	460.6223 HMA Pavement 3 MT 58-28 S	1,435.000 TON	_____.____	_____.____
0088	460.6424 HMA Pavement 4 MT 58-28 H	1,025.000 TON	_____.____	_____.____
0090	465.0105 Asphaltic Surface	575.000 TON	_____.____	_____.____
0092	465.0120 Asphaltic Surface Driveways and Field Entrances	72.000 TON	_____.____	_____.____
0094	465.0125 Asphaltic Surface Temporary	333.000 TON	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0096	502.0100 Concrete Masonry Bridges	122.000 CY	_____.____	_____.____
0098	502.3200 Protective Surface Treatment	760.000 SY	_____.____	_____.____
0100	502.3210 Pigmented Surface Sealer	380.000 SY	_____.____	_____.____
0102	502.4205 Adhesive Anchors No. 5 Bar	56.000 EACH	_____.____	_____.____
0104	502.4206 Adhesive Anchors No. 6 Bar	422.000 EACH	_____.____	_____.____
0106	505.0600 Bar Steel Reinforcement HS Coated Structures	11,060.000 LB	_____.____	_____.____
0108	509.1200 Curb Repair	697.000 LF	_____.____	_____.____
0110	509.1500 Concrete Surface Repair	658.000 SF	_____.____	_____.____
0112	509.9020.S Epoxy Crack Sealing	36.000 LF	_____.____	_____.____
0114	509.9050.S Cleaning Parapets	516.000 LF	_____.____	_____.____
0116	513.9006.S Removing and Resetting Tubular Railing (structure) 01. B-59-0048	1.000 EACH	_____.____	_____.____
0118	520.8000 Concrete Collars for Pipe	13.000 EACH	_____.____	_____.____
0120	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	9.000 EACH	_____.____	_____.____
0122	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	3.000 EACH	_____.____	_____.____
0124	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	1.000 EACH	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0126	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	1.000 EACH	_____.____	_____.____
0128	601.0409 Concrete Curb & Gutter 30-Inch Type A	6,578.000 LF	_____.____	_____.____
0130	601.0411 Concrete Curb & Gutter 30-Inch Type D	1,106.000 LF	_____.____	_____.____
0132	601.0555 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	186.000 LF	_____.____	_____.____
0134	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	2,227.000 LF	_____.____	_____.____
0136	601.0588 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	84.000 LF	_____.____	_____.____
0138	601.0600 Concrete Curb Pedestrian	89.000 LF	_____.____	_____.____
0140	602.0410 Concrete Sidewalk 5-Inch	10,446.000 SF	_____.____	_____.____
0142	602.0515 Curb Ramp Detectable Warning Field Natural Patina	220.000 SF	_____.____	_____.____
0144	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	118.000 SF	_____.____	_____.____
0146	603.8000 Concrete Barrier Temporary Precast Delivered	351.000 LF	_____.____	_____.____
0148	603.8125 Concrete Barrier Temporary Precast Installed	351.000 LF	_____.____	_____.____
0150	606.0200 Riprap Medium	36.000 CY	_____.____	_____.____
0152	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	1,134.000 LF	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0154	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	250.000 LF	_____.____	_____.____
0156	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	21.000 LF	_____.____	_____.____
0158	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	13.000 LF	_____.____	_____.____
0160	608.0436 Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	82.000 LF	_____.____	_____.____
0162	611.0530 Manhole Covers Type J	1.000 EACH	_____.____	_____.____
0164	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.____	_____.____
0166	611.0624 Inlet Covers Type H	25.000 EACH	_____.____	_____.____
0168	611.0627 Inlet Covers Type HM	6.000 EACH	_____.____	_____.____
0170	611.0639 Inlet Covers Type H-S	11.000 EACH	_____.____	_____.____
0172	611.0654 Inlet Covers Type V	1.000 EACH	_____.____	_____.____
0174	611.2004 Manholes 4-FT Diameter	2.000 EACH	_____.____	_____.____
0176	611.2005 Manholes 5-FT Diameter	3.000 EACH	_____.____	_____.____
0178	611.3004 Inlets 4-FT Diameter	8.000 EACH	_____.____	_____.____
0180	611.3230 Inlets 2x3-FT	33.000 EACH	_____.____	_____.____
0182	611.8110 Adjusting Manhole Covers	6.000 EACH	_____.____	_____.____
0184	611.8115 Adjusting Inlet Covers	3.000 EACH	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0186	611.8120.S Cover Plates Temporary	2.000 EACH	_____.____	_____.____
0188	611.9705 Salvaged Manhole Covers	1.000 EACH	_____.____	_____.____
0190	611.9710 Salvaged Inlet Covers	3.000 EACH	_____.____	_____.____
0192	612.0106 Pipe Underdrain 6-Inch	600.000 LF	_____.____	_____.____
0194	614.0150 Anchor Assemblies for Steel Plate Beam Guard	1.000 EACH	_____.____	_____.____
0196	614.2300 MGS Guardrail 3	68.000 LF	_____.____	_____.____
0198	614.2500 MGS Thrie Beam Transition	78.000 LF	_____.____	_____.____
0200	614.2610 MGS Guardrail Terminal EAT	2.000 EACH	_____.____	_____.____
0202	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0204	620.0300 Concrete Median Sloped Nose	417.000 SF	_____.____	_____.____
0206	623.0200 Dust Control Surface Treatment	28,507.000 SY	_____.____	_____.____
0208	624.0100 Water	261.000 MGAL	_____.____	_____.____
0210	625.0100 Topsoil	12,773.000 SY	_____.____	_____.____
0212	628.1504 Silt Fence	4,662.000 LF	_____.____	_____.____
0214	628.1520 Silt Fence Maintenance	466.000 LF	_____.____	_____.____
0216	628.1905 Mobilizations Erosion Control	6.000 EACH	_____.____	_____.____

Proposal ID: 20211214031 Project(s): 4291-02-71

Federal ID(s): WISC 2022107

SECTION: 0001 Bike and Pedestrian Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0218	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.____	_____.____
0220	628.2004 Erosion Mat Class I Type B	1,350.000 SY	_____.____	_____.____
0222	628.2008 Erosion Mat Urban Class I Type B	11,446.000 SY	_____.____	_____.____
0224	628.7005 Inlet Protection Type A	44.000 EACH	_____.____	_____.____
0226	628.7010 Inlet Protection Type B	7.000 EACH	_____.____	_____.____
0228	628.7015 Inlet Protection Type C	55.000 EACH	_____.____	_____.____
0230	628.7020 Inlet Protection Type D	11.000 EACH	_____.____	_____.____
0232	628.7560 Tracking Pads	7.000 EACH	_____.____	_____.____
0234	628.7570 Rock Bags	303.000 EACH	_____.____	_____.____
0236	629.0210 Fertilizer Type B	8.000 CWT	_____.____	_____.____
0238	630.0130 Seeding Mixture No. 30	230.000 LB	_____.____	_____.____
0240	630.0200 Seeding Temporary	303.000 LB	_____.____	_____.____
0242	630.0500 Seed Water	253.000 MGAL	_____.____	_____.____
0244	633.5200 Markers Culvert End	14.000 EACH	_____.____	_____.____
0246	634.0618 Posts Wood 4x6-Inch X 18-FT	50.000 EACH	_____.____	_____.____
0248	634.0808 Posts Tubular Steel 2x2-Inch X 8-FT	1.000 EACH	_____.____	_____.____
0250	637.2210 Signs Type II Reflective H	457.760 SF	_____.____	_____.____

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0252	637.2215 Signs Type II Reflective H Folding	20.720 SF	_____.____	_____.____
0254	638.2102 Moving Signs Type II	6.000 EACH	_____.____	_____.____
0256	638.2602 Removing Signs Type II	54.000 EACH	_____.____	_____.____
0258	638.3000 Removing Small Sign Supports	40.000 EACH	_____.____	_____.____
0260	638.4000 Moving Small Sign Supports	2.000 EACH	_____.____	_____.____
0262	642.5001 Field Office Type B	1.000 EACH	_____.____	_____.____
0264	643.0300 Traffic Control Drums	33,250.000 DAY	_____.____	_____.____
0266	643.0420 Traffic Control Barricades Type III	4,070.000 DAY	_____.____	_____.____
0268	643.0500 Traffic Control Flexible Tubular Marker Posts	156.000 EACH	_____.____	_____.____
0270	643.0600 Traffic Control Flexible Tubular Marker Bases	156.000 EACH	_____.____	_____.____
0272	643.0705 Traffic Control Warning Lights Type A	6,826.000 DAY	_____.____	_____.____
0274	643.0715 Traffic Control Warning Lights Type C	5,315.000 DAY	_____.____	_____.____
0276	643.0800 Traffic Control Arrow Boards	244.000 DAY	_____.____	_____.____
0278	643.0900 Traffic Control Signs	15,517.000 DAY	_____.____	_____.____
0280	643.0920 Traffic Control Covering Signs Type II	10.000 EACH	_____.____	_____.____
0282	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0284	644.1410 Temporary Pedestrian Surface Asphalt	4,463.000 SF	_____.____	_____.____
0286	644.1601 Temporary Pedestrian Curb Ramp	206.000 DAY	_____.____	_____.____
0288	644.1810 Temporary Pedestrian Barricade	595.000 LF	_____.____	_____.____
0290	645.0111 Geotextile Type DF Schedule A	178.000 SY	_____.____	_____.____
0292	645.0120 Geotextile Type HR	145.000 SY	_____.____	_____.____
0294	645.0220 Geogrid Type SR	13,532.000 SY	_____.____	_____.____
0296	646.1005 Marking Line Paint 4-Inch	14,335.000 LF	_____.____	_____.____
0298	646.3005 Marking Line Paint 8-Inch	2,055.000 LF	_____.____	_____.____
0300	646.5005 Marking Arrow Paint	29.000 EACH	_____.____	_____.____
0302	646.5105 Marking Word Paint	5.000 EACH	_____.____	_____.____
0304	646.5205 Marking Symbol Paint	17.000 EACH	_____.____	_____.____
0306	646.6105 Marking Stop Line Paint 18-Inch	194.000 LF	_____.____	_____.____
0308	646.7105 Marking Diagonal Paint 12-Inch	1,472.000 LF	_____.____	_____.____
0310	646.7205 Marking Chevron Paint 24-Inch	341.000 LF	_____.____	_____.____
0312	646.7405 Marking Crosswalk Paint Transverse Line 6-Inch	661.000 LF	_____.____	_____.____
0314	646.8105 Marking Curb Paint	80.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0316	646.8205 Marking Island Nose Paint	8.000 EACH	_____.____	_____.____
0318	646.9000 Marking Removal Line 4-Inch	150.000 LF	_____.____	_____.____
0320	649.0105 Temporary Marking Line Paint 4-Inch	5,793.000 LF	_____.____	_____.____
0322	649.0150 Temporary Marking Line Removable Tape 4-Inch	23,844.000 LF	_____.____	_____.____
0324	649.0205 Temporary Marking Line Paint 8-Inch	189.000 LF	_____.____	_____.____
0326	649.0250 Temporary Marking Line Removable Tape 8-Inch	132.000 LF	_____.____	_____.____
0328	649.0505 Temporary Marking Arrow Paint	3.000 EACH	_____.____	_____.____
0330	649.0550 Temporary Marking Arrow Removable Tape	3.000 EACH	_____.____	_____.____
0332	649.0805 Temporary Marking Stop Line Paint 18-Inch	11.000 LF	_____.____	_____.____
0334	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	151.000 LF	_____.____	_____.____
0336	650.4000 Construction Staking Storm Sewer	60.000 EACH	_____.____	_____.____
0338	650.4500 Construction Staking Subgrade	4,772.000 LF	_____.____	_____.____
0340	650.5000 Construction Staking Base	1,891.000 LF	_____.____	_____.____
0342	650.5500 Construction Staking Curb Gutter and Curb & Gutter	3,121.000 LF	_____.____	_____.____
0344	650.7000 Construction Staking Concrete Pavement	2,881.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0346	650.8500 Construction Staking Electrical Installations (project) 01. 4291-02-71	LS	LUMP SUM	_____.____
0348	650.9000 Construction Staking Curb Ramps	16.000 EACH	_____.____	_____.____
0350	650.9910 Construction Staking Supplemental Control (project) 01. 4291-02-71	LS	LUMP SUM	_____.____
0352	650.9920 Construction Staking Slope Stakes	3,887.000 LF	_____.____	_____.____
0354	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	5,875.000 LF	_____.____	_____.____
0356	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	2,125.000 LF	_____.____	_____.____
0358	653.0140 Pull Boxes Steel 24x42-Inch	25.000 EACH	_____.____	_____.____
0360	653.0905 Removing Pull Boxes	17.000 EACH	_____.____	_____.____
0362	654.0101 Concrete Bases Type 1	1.000 EACH	_____.____	_____.____
0364	654.0102 Concrete Bases Type 2	4.000 EACH	_____.____	_____.____
0366	654.0113 Concrete Bases Type 13	4.000 EACH	_____.____	_____.____
0368	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.____	_____.____
0370	655.0230 Cable Traffic Signal 5-14 AWG	922.000 LF	_____.____	_____.____
0372	655.0240 Cable Traffic Signal 7-14 AWG	410.000 LF	_____.____	_____.____
0374	655.0260 Cable Traffic Signal 12-14 AWG	1,585.000 LF	_____.____	_____.____

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0376	655.0263 Cable Traffic Signal 15-10 AWG	245.000 LF	_____.____	_____.____
0378	655.0320 Cable Type UF 2-10 AWG Grounded	1,233.000 LF	_____.____	_____.____
0380	655.0515 Electrical Wire Traffic Signals 10 AWG	1,987.000 LF	_____.____	_____.____
0382	655.0610 Electrical Wire Lighting 12 AWG	4,161.000 LF	_____.____	_____.____
0384	655.0615 Electrical Wire Lighting 10 AWG	13,499.000 LF	_____.____	_____.____
0386	655.0620 Electrical Wire Lighting 8 AWG	976.000 LF	_____.____	_____.____
0388	655.0630 Electrical Wire Lighting 4 AWG	8,862.000 LF	_____.____	_____.____
0390	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. CTH PP and Taylor Drive	LS	LUMP SUM	_____.____
0392	657.0100 Pedestal Bases	1.000 EACH	_____.____	_____.____
0394	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	4.000 EACH	_____.____	_____.____
0396	657.0310 Poles Type 3	4.000 EACH	_____.____	_____.____
0398	657.0360 Poles Type 13	4.000 EACH	_____.____	_____.____
0400	657.0405 Traffic Signal Standards Aluminum 3.5-FT	1.000 EACH	_____.____	_____.____
0402	657.0555 Monotube Arms 55-FT	4.000 EACH	_____.____	_____.____
0404	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	4.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0406	657.0806 Luminaire Arms Steel 6-FT	4.000 EACH	_____.____	_____.____
0408	658.0173 Traffic Signal Face 3S 12-Inch	10.000 EACH	_____.____	_____.____
0410	658.0174 Traffic Signal Face 4S 12-Inch	8.000 EACH	_____.____	_____.____
0412	658.0175 Traffic Signal Face 5S 12-Inch	2.000 EACH	_____.____	_____.____
0414	658.0416 Pedestrian Signal Face 16-Inch	4.000 EACH	_____.____	_____.____
0416	658.0500 Pedestrian Push Buttons	5.000 EACH	_____.____	_____.____
0418	658.5069 Signal Mounting Hardware (location) 01. CTH PP & Taylor Drive	LS	LUMP SUM	_____.____
0420	659.1125 Luminaires Utility LED C	8.000 EACH	_____.____	_____.____
0422	661.0200 Temporary Traffic Signals for Intersections (location) 01. CTH PP & Taylor Drive	LS	LUMP SUM	_____.____
0424	690.0150 Sawing Asphalt	2,614.000 LF	_____.____	_____.____
0426	690.0250 Sawing Concrete	4,448.000 LF	_____.____	_____.____
0428	715.0502 Incentive Strength Concrete Structures	732.000 DOL	1.00000	732.00
0430	715.0720 Incentive Compressive Strength Concrete Pavement	2,291.000 DOL	1.00000	2,291.00
0432	740.0440 Incentive IRI Ride	2,769.000 DOL	1.00000	2,769.00
0434	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	2,400.000 HRS	5.00000	12,000.00

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0436	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	1,320.000 HRS	5.00000	6,600.00
0438	SPV.0035 Special 01. Concrete Surface Repair Corrosion Inhibiting Admixture	13.000 CY	_____.____	_____.____
0440	SPV.0060 Special 01. Storm Sewer Cut-In	10.000 EACH	_____.____	_____.____
0442	SPV.0060 Special 02. Adjusting Valve Box	8.000 EACH	_____.____	_____.____
0444	SPV.0060 Special 03. Inlet Cover Type DW	3.000 EACH	_____.____	_____.____
0446	SPV.0060 Special 04. Utility Line Opening (ULO)	4.000 EACH	_____.____	_____.____
0448	SPV.0060 Special 05. Remove Traffic Signals CTH PP & Taylor Drive	1.000 EACH	_____.____	_____.____
0450	SPV.0060 Special 06. Traffic Signal Controller and Cabinet, CTH PP & Taylor Drive	1.000 EACH	_____.____	_____.____
0452	SPV.0060 Special 07. Video Detection System, CTH PP & Taylor Drive	1.000 EACH	_____.____	_____.____
0454	SPV.0060 Special 08. Emergency Vehicle Preemption System, CTH PP & Taylor Drive	1.000 EACH	_____.____	_____.____
0456	SPV.0060 Special 09. Light Pole Concrete Base Type A	22.000 EACH	_____.____	_____.____
0458	SPV.0060 Special 10. Light Pole Concrete Base Type B	16.000 EACH	_____.____	_____.____
0460	SPV.0060 Special 11. Path Lighting Assembly 14-Foot Pole	21.000 EACH	_____.____	_____.____
0462	SPV.0060 Special 12. Road Lighting Assembly 30-Foot Pole	16.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0464	SPV.0060 Special 13. Salvage and Relocate Existing Lighting Pole	1.000 EACH	_____.____	_____.____
0466	SPV.0060 Special 14. Intercept Existing Conduit	2.000 EACH	_____.____	_____.____
0468	SPV.0060 Special 15. Cleaning and Painting Bearings	60.000 EACH	_____.____	_____.____
0470	SPV.0060 Special 16. Steel Expansion Joint Cover Plate Repairs	2.000 EACH	_____.____	_____.____
0472	SPV.0060 Special 17. Adjusting Sanitary Manholes	4.000 EACH	_____.____	_____.____
0474	SPV.0060 Special 18. Reconstruct Existing Sanitary Sewer Structure	8.000 EACH	_____.____	_____.____
0476	SPV.0060 Special 19. 4-Foot Sanitary Sewer Manhole	1.000 EACH	_____.____	_____.____
0478	SPV.0060 Special 20. Remove and Reset Decorative Boulders	5.000 EACH	_____.____	_____.____
0480	SPV.0060 Special 21. 12-Inch Gate Valve and Valve Box	3.000 EACH	_____.____	_____.____
0482	SPV.0060 Special 22. 6-Inch Gate Valve and Valve Box	6.000 EACH	_____.____	_____.____
0484	SPV.0060 Special 23. Fire Hydrant Assembly	5.000 EACH	_____.____	_____.____
0486	SPV.0060 Special 24. Service Connection	10.000 EACH	_____.____	_____.____
0488	SPV.0060 Special 25. South Taylor Drive Crossing	1.000 EACH	_____.____	_____.____
0490	SPV.0060 Special 26. Box Culvert Crossing	1.000 EACH	_____.____	_____.____

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0492	SPV.0090 Special 01. Storm Sewer PVC Pipe 10-Inch	10.000 LF	_____.____	_____.____
0494	SPV.0090 Special 02. Storm Sewer Pipe PVC 14-Inch	19.000 LF	_____.____	_____.____
0496	SPV.0090 Special 03. Fence Chain Link Polymer-Coated 6-Foot	50.000 LF	_____.____	_____.____
0498	SPV.0090 Special 04. Strip Seal Gland Replacement	288.000 LF	_____.____	_____.____
0500	SPV.0090 Special 05. Sidewalk Cover Plate	32.000 LF	_____.____	_____.____
0502	SPV.0090 Special 06. Televising Sanitary Sewer	693.000 LF	_____.____	_____.____
0504	SPV.0090 Special 07. Sanitary Sewer Cured-In-Place Liner	693.000 LF	_____.____	_____.____
0506	SPV.0090 Special 08. Sanitary Sewer 10-Inch	20.000 LF	_____.____	_____.____
0508	SPV.0090 Special 09. Sanitary Sewer Spot Repair	100.000 LF	_____.____	_____.____
0510	SPV.0090 Special 10. 12-Inch PVC Water Main	2,368.000 LF	_____.____	_____.____
0512	SPV.0090 Special 11. 8-Inch PVC Water Main	14.000 LF	_____.____	_____.____
0514	SPV.0090 Special 12. 6-Inch PVC Water Main	149.000 LF	_____.____	_____.____
0516	SPV.0090 Special 13. Water Service	324.000 LF	_____.____	_____.____

Section: 0001 Total: _____.____

Total Bid: _____.____

PLEASE ATTACH ADDENDA HERE