

# HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation  
06/2017 s.66.0901(7) Wis. Stats

Proposal Number: **009**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Racine	2350-00-70	WISC 2018087	Hamilton St/Douglas Av, C Of Racine; Main Street To Goold Street	STH 032

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: \$100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: February 13, 2018 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time November 16, 2018	<b>SAMPLE</b> <b>NOT FOR BIDDING PURPOSES</b>
Assigned Disadvantaged Business Enterprise Goal <b>15 %</b>	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date \_\_\_\_\_

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

\_\_\_\_\_  
(Bidder Signature)

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

\_\_\_\_\_  
(Print or Type Bidder Name)

\_\_\_\_\_  
(Date Commission Expires)

\_\_\_\_\_  
(Bidder Title)

Notary Seal

Type of Work: Mill, Grade, Base, Storm Sewer, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Sidewalk, Signals, Lighting, Signing, Landscaping, Overhead Sign Supports, Pavement Marking	For Department Use Only
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:  
<http://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 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at <http://www.bidx.com/> after 5:00 P.M. local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (\*.ebs or \*.00x) is used to submit the final bid.

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

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:  
<http://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, Room 601, 4802 Sheboygan Avenue, 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<sup>TM</sup> web site.
  2. Use Expedite<sup>TM</sup> software to enter a unit price for every item in the schedule of items.
  3. Submit the bid according to the requirements of Expedite<sup>TM</sup> software and the Bid Express<sup>TM</sup> 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<sup>TM</sup> web site reflecting the latest addenda posted on the department's web site at:  
<http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>  
Use Expedite<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> generated schedule of items is not the same on each page.
  2. The check code printed on the printout of the Expedite<sup>TM</sup> generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
  3. The diskette or CD ROM is not submitted at the time and place the department designates.

### **C Waiver of Electronic Submittal**

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

# PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

## PRINCIPAL

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

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

## NOTARY FOR PRINCIPAL

\_\_\_\_\_  
(Date)

State of Wisconsin )  
 ) ss.  
\_\_\_\_\_ County )

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

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

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

\_\_\_\_\_  
(Date Commission Expires)

**Notary Seal**

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

\_\_\_\_\_  
(Signature of Attorney-in-Fact)

## NOTARY FOR SURETY

\_\_\_\_\_  
(Date)

State of Wisconsin )  
 ) ss.  
\_\_\_\_\_ County )

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

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

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

\_\_\_\_\_  
(Date Commission Expires)

**Notary Seal**

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





# CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

\_\_\_\_\_  
(Signature of Authorized Contractor Representative)

\_\_\_\_\_  
(Date)



## March 2010

## LIST OF SUBCONTRACTORS

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

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

[illegible]

**DECEMBER 2000**

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

Instructions for Certification

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

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

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

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

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

## Special Provisions

### Table of Contents

Article	Description	Page #
1.	General.....	4
2.	Scope of Work. ....	4
3.	Prosecution and Progress. ....	4
4.	Traffic. ....	5
5.	Notice to Contractor – The Belle Urban System. ....	8
6.	Holiday Work Restrictions. ....	8
7.	Utilities.....	9
8.	Erosion Control.....	16
9.	Municipality Acceptance of Sanitary Sewer and Water Main Construction.....	17
10.	Referenced Construction Specifications. ....	17
11.	Public Convenience and Safety. ....	17
12.	Coordination with Businesses and Residents. ....	17
13.	Abandoning Sewer, Item 204.0291.S. ....	18
14.	Removing Lighting Units, Item 204.9060.S.01.....	18
15.	Removing Trolley Poles, Item 204.9060.S.02.....	19
16.	Removing Lighting Control Cabinets, Item 204.9060.S.03. ....	20
17.	Removing Wood Poles, Item 204.9060.S.04.....	21
18.	Removing Trolley Tracks, Item 204.9090.S.01.....	21
19.	Removing Aerial Cable, Item 204.9090.S.02.....	22
20.	Remove Traffic Signals, Hamilton Street & Main Street, Item 204.9105.S.01; Douglas Avenue & Marquette Street, Item 204.9105.S.02; Douglas Avenue & High Street, Item 204.9105.S.03; Douglas Avenue & Yout Street, Item 204.9105.S.04.....	22
21.	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S. ....	24
22.	Backfill Controlled Low Strength, Item 209.0200.S. ....	28
23.	QMP Base Aggregate. ....	30
24.	Concrete Pavement Joint Layout, Item 415.5110.S.....	38
25.	Landscape Planting Surveillance and Care Cycles.....	39
26.	Signs Type I and II.....	39
27.	Removing Signs Type II. ....	40
28.	Temporary Pedestrian Surface Plate, Item 644.1430.S. ....	40
29.	Temporary Curb Ramp, Item 644.1601.S.....	41
30.	Temporary Pedestrian Safety Fence, Item 644.1616.S.....	42
31.	Lighting Systems General.....	43
32.	Traffic Signals, General. ....	44
33.	Video Detection System - General. ....	45
34.	Electrical Wire Lighting 12 AWG, Item 655.0610; Electrical Wire Lighting 4 AWG, Item 644.0630.....	45

35.	Electrical Service Main Lugs Only Meter Pedestal, Cabinet DB, Item 656.0400.01; Electrical Service Main Lugs Only Meter Pedestal, Cabinet DC, Item 656.0400.02.	45
36.	Electrical Service Meter Breaker Pedestal, Intersection of Hamilton Street & Main Street, Item 656.0200.01; Electrical Service Meter Breaker Pedestal, Intersection of Douglas Avenue & Marquette Street, Item 656.0200.02; Electrical Service Meter Breaker Pedestal, Intersection of Douglas Avenue & High Street, Item 656.0200.03; Electrical Service Meter Breaker Pedestal, Intersection of Douglas Avenue & Yout Street, Item 656.0200.04.	46
37.	Traffic Signal Face 3S, Item 658.0173, Pedestrian Signal Face 5S, Item 658.0175.	46
38.	Pedestrian Signal Face 16-Inch, Item 658-0416.	46
39.	Signal Mounting Hardware, Intersection of Hamilton Street & Main Street, Item 658.5069.01; Intersection of Douglas Avenue & Marquette Street, Item 658.5069.02; Intersection of Douglas Avenue & High Street, Item 658.5069.03; Intersection of Douglas Avenue & Yout Street, Item 658.5069.04.	46
40.	Crack and Damage Survey, Item 999.1500.S.	47
41.	Backfill for Plant Beds – 18-Inch Depth, Item SPV.0035.01.	48
42.	Field Facilities Office Space, Item SPV.0060.01.	49
43.	Adjusting Sanitary Manholes, Item SPV.0060.02.	50
44.	Reconstructing Sanitary Manholes, Item SPV.0060.03.	51
45.	Adjusting Water Manholes, Item SPV.0060.04.	52
46.	Drainage Grate, Item SPV.0060.05.	53
47.	Abandon Existing Vault, Item SPV.0060.06.	53
48.	Moving Wheel Stops, Item SPV.0060.07.	54
49.	Temporary Relocation of Lighting Control Cabinet, Item SPV.0060.22.	54
50.	Decorative Lighting Units, Item SPV.0060.24.	55
51.	Type 1 LED Luminaires, Item SPV.0060.25; Type 2 LED Luminaires, Item SPV.0060.26.	58
52.	Replace Pole Fusing, Item SPV.0060.27.	59
53.	Lighting Control Cabinets, Item SPV.0060.28.	60
54.	Wood Poles, Item SPV.0060.29.	63
55.	Traffic Signal Controller & Cabinet, Item SPV.0060.40.	64
56.	Pedestrian Push Buttons, Item SPV.0060.41.	77
57.	Microwave Detection Sensor, Item SPV.0060.42.	78
58.	Pre-Terminated Patch Panel with 6-Ports, Item SPV.0060.43.	81
59.	IP Ethernet Switch with Single Mode Fiber Ports, Item SPV.0060.44.	83
60.	IP Video Encoder Single Port, Item SPV.0060.45.	85
61.	Signal Pole Decorative Arms and LED Luminaires, Item SPV.0060.46.	87
62.	Pedestal Bases Black, Item SPV.0060.47; Transformer Bases Breakaway 11 ½-Inch Bolt Circle Black, Item SPV.0060.48; Poles Type 2 Black, Item SPV.0060.49; Poles Type 3 Black, Item SPV.0060.50; Traffic Signal Standards Aluminum 13-FT Black, Item SPV.0060.51; Traffic Signal Standards Aluminum 15-FT Black, Item SPV.0060.52; Traffic Signal Standards Aluminum 10-FT Black, Item SPV.0060.53; Trombone Arms 15-FT Black, Item SPV.0060.54; Trombone Arms 20-FT Black, Item SPV.0060.55; Trombone Arms 25-FT Black, Item SPV.0060.56.	89



63.	Coneflower, Magnus Purple, 1 Gal. CG, Item SPV.0060.60; Daylily, Rosy Returns, 1 Gal. CG, SPV.0060.61; Daylily, Strawberry Candy, 1 Gal. CG, SPV.0060.62; Goldenrod, Fireworks, 1 Gal. CG, SPV.0060.63; New England Aster, Purple Dome, 1 Gal. CG, Item SPV.0060.64.....	91
64.	Feather Reed Grasses, 1 Gal. CG, Item SPV.0060.65; Little Bluestem, Carousel, 4-Inch Pot CG, Item SPV.0060.66.....	92
65.	Daffodil, Juanita, Bulb, Item SPV.0060.67. ....	92
66.	Bench, Item SPV.0060.68.....	93
67.	Decorative Plant Pot – Type 1, Item SPV.0060.69.....	94
68.	Decorative Plant Pot – Type 2, Item SPV.0060.70.....	95
69.	Moving Existing Bench, Item SPV.0060.71.....	96
70.	Moving Existing Trash Receptacle, Item SPV.0060.72. ....	96
71.	Salvage Existing Decorative Plat Pot, Item SPV.0060.73.....	97
72.	Construction Staking Sidewalk, Item SPV.0090.01.....	97
73.	Aerial Cable Aluminum Triplex 2 AWG, Item SPV.0090.02; Aerial Cable Aluminum Quadplex 2 AWG, Item SPV.0090.03. ....	98
74.	Concrete Curb Type D Modified, Item SPV.0090.05. ....	99
75.	Aluminum Edger, Item SPV.0090.10. ....	100
76.	Fiber Optic Tracer Cable 12 AWG, Item SPV.0090.40. ....	100
77.	Dielectric Fiber Optic Cable 24-Count, Item SPV.0090.41. ....	101
78.	Locate and Replace Existing Property Monuments, Item SPV.0105.01. ....	104
79.	Video Detection System, Hamilton Street & Main Street, Item SPV.0105.40; Douglas Avenue & Marquette Street, Item SPV.0105.41; Douglas Avenue & High Street, Item SPV.0105.42; Douglas Avenue & Yout Street, Item SPV.0105.43.....	105
80.	Temporary Traffic Signal Modifications, Main Street & Goold Street, Item SPV.0105.44. ....	111
81.	Stamped Colored Concrete Sidewalk, 4-Inch, Item SPV.0165.01. ....	112
82.	Colored Concrete Paving, 4-Inch, Item SPV.0165.02.....	113
83.	Colored Concrete Paving, 8-Inch, Item SPV.0165.03.....	114
84.	Shredded Hardwood Bark Mulch, Item SPV.0180.10.....	116

## **SPECIAL PROVISIONS**

### **1. General.**

Perform the work under this construction contract for Project 2350-00-70, Hamilton Street/Douglas Avenue, City of Racine, Main Street to Goold Street, STH 32, Racine 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, 2018 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 (20170615)

### **2. Scope of Work.**

The work under this contract shall consist of pavement removal, excavation common, base aggregate dense, concrete pavement, concrete curb and gutter, concrete sidewalk, storm sewer, traffic signals, street lighting, signing, pavement marking, landscaping and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

### **3. Prosecution and Progress.**

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

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

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

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

**Northern Long-eared Bat (*Myotis septentrionalis*)**

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

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

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

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

**4. Traffic.**

Perform all work according to the requirements of standard spec 643, as detailed in the Traffic Control Plans and as hereinafter described.

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

The contractor shall conduct operations in a manner that will cause the least interference to traffic movements and adjacent business and residential access within the construction areas.

The parking and storage of construction vehicles, equipment and material must be approved by the engineer and shall be restricted to the minimum required and the minimum time necessary at the work sites to prosecute the work. At such location the material and equipment involved shall not constitute a hazard to the traveling public.

Hamilton Street, High Street and Yout Street shall be open to two-way traffic on July 4, 2018 to accommodate holiday traffic.

## **Staging**

Perform construction operations in stages as shown in the traffic control/construction staging plans, unless modifications are approved in writing by the engineer.

Traffic through the construction zone will be reduced to southbound traffic only. Detours for northbound traffic will be posted throughout construction.

Maintain access to properties at all times by keeping the existing sidewalk along Douglas Avenue and Hamilton Street open as long as possible while the roadway is being reconstructed. When new sidewalk needs to be constructed, adjust pedestrian signing accordingly to direct pedestrian traffic around the work zone. Coordinate with the owners of properties to determine the best time for closure of the sidewalk or to provide temporary access as needed using ADA compatible devices and materials. Minimize the amount of time sidewalks are closed and pedestrian detours are needed.

### **Stage 1**

Construct the east side of Douglas Avenue from Hamilton Street to Marquette Street and Hamilton Street east of Douglas Avenue. Construct the intersection of Barker Street. Hamilton Street will be closed except for the intersection of Erie Street where access must be maintained for Erie Street to cross Hamilton Street at all times as this is a one-way southbound street. The intersections at Kewaunee Street and Hubbard Street shall remain open during this stage. Construct storm sewer in the Main Street intersection by the use of flagging. Work in the Main Street intersection that requires lane closures or flagging is only allowed from 9:00 AM to 3:00 PM. Signals shall be operational before opening Hamilton Street to traffic.

### **Stage 1A**

Construct the intersections of Hubbard Street and Kewaunee Street when the Barker Street intersection is open to traffic and pedestrians.

### **Stage 2**

Construct the west side of Douglas Avenue from Hamilton Street to Marquette Street and the intersections at Hamilton Street, La Salle Street and Kewaunee Street. The intersections of Superior Street and Albert Street shall remain open during this stage.

### **Stage 2A**

Construct the intersections of Superior Street and Albert Street when the Hamilton Street, La Salle Street and Kewaunee Street intersections are open to traffic and pedestrians.

### **Stage 3**

Construct the east side of Douglas Avenue from Marquette Street to Goold Street and the intersections of High Street, English Street and Charles Street. The intersections of St Patrick Street, Hagerer Street and Yout Street shall remain open during this stage. The intersection of High Street may be closed for a maximum of 21 calendar days.

#### Stage 3A

Construct the intersections of St Patrick Street, Hagerer Street and Yout Street when the High Street, English Street and Charles Street intersections are open to traffic and pedestrians. The intersections of St. Patrick Street, and Yout Street may be closed for a maximum of 21 calendar days.

#### Stage 4

Construct the west side of Douglas Avenue from Marquette Street to Goold Street and the intersections of Marquette Street, High Street, Dr. Martin Luther King Jr. Drive and the north side of Rapids Drive. The intersections of St Patrick Street, Rapids Drive eastbound, Charles Street and You Street shall remain open during this stage. The intersections of St. Patrick Street, High Street and Yout Street may be closed for a maximum of 21 calendar days. High Street shall not be closed at the same time as St. Patrick Street or Yout Street. Signals shall be operational before opening Douglas Avenue to two-way traffic.

#### Stage 4A

Construct the intersections of Marquette Street, St Patrick Street, the south side of Rapids Drive, Charles Street and Yout Street when the High Street, Dr. Martin Luther King Jr. Drive and Rapids Drive eastbound intersection are open to traffic and pedestrians. The intersections of St. Patrick Street, and Yout Street may be closed for a maximum of 21 calendar days.

#### **Emergency Vehicle Access**

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

#### **Construction Contact Information**

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

#### **Local Vehicle Access**

Close driveways only for the minimum time required to construct new access approaches. Prior to removal or closing of driveway access, provide 48 hour notice to the occupant and owner of the premises.

#### **Business Access**

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

#### **Wisconsin Lane Closure System Advance Notification**

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

**TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

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

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.  
stp-108-057 (20161130)

## **5. Notice to Contractor – The Belle Urban System.**

The City of Racine operates the Belle Urban System (The BUS) including one or more routes within the construction limits. Notify the City of Racine and the BUS representatives at least ten days prior to beginning work and prior to any side street closures and invite them to all project coordination meetings between the contractor, the department, local officials and business people to discuss the project schedule and operations. The City of Racine contact is Michael Maierle, (262) 636-9480 and the BUS representative is Willie McDonald, (262) 619-2443.

The City of Racine and the BUS will remove their existing bus stop signs and relocate their bus stops to off-site locations. Notify the City of Racine and the BUS at least 14 days in advance. City of Racine and the BUS will install new bus stop signs prior to the opening of traffic on the new roadway pavement. Notify the City of Racine and the BUS at least ten days prior to opening new pavement to vehicular traffic.

## **6. Holiday Work Restrictions.**

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 32 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 periods:

- From noon Friday, May 25, 2018 to 6:00 AM Tuesday, May 29, 2018 for Memorial Day;
- From noon Tuesday, July 3, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day;
- From noon Friday, August 31, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day;
- From noon Wednesday, November 21, 2018 to 6:00 AM Monday, November 26, 2018 for Thanksgiving;
- From noon Friday, December 21, 2018 to 6:00 AM Wednesday, January 2, 2019 for Christmas and New Year's Day.

stp-107-005 (20050502)

## **7. Utilities.**

This contract does not come under the provision of Administrative Rule Trans 220.  
stp-107-065 (20080501)

There are underground and overhead utility facilities located within the project limits. There are known private utility adjustments required for this construction project. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of underground and overhead facilities.

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. Frequently, the utility companies encounter problems that prevent them from meeting their anticipated schedules. Bidders are advised to contact each utility company listed in the plans prior to preparing their bids to obtain current information on the status of any utility relocation work within the project work limits.

All contractor equipment reaching heights of 17 feet or higher must maintain a minimum OSHA clearance of 10' horizontal and vertical at all times from We Energies overhead facilities. All contractors should incorporate any additional costs associated with working around all existing We Energies facilities.

Some utility work, as described below, is dependent on coordination with the contractor during construction. Provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Notice shall be given 14 to 16 calendar days in advance of when the site will be available to the utility. Follow up with a confirmation notice to the engineer and the utility not less than 5 working days before the site will be ready for the utility to begin its work.

All the listed utility companies are members of Diggers Hotline unless noted otherwise.

### AT&T Wisconsin

AT&T has underground facilities at the following locations.

- North side of Hamilton Street from Station 99+08 to 100+13.
- East side of Erie Street crossing Hamilton Street at Station 104+27.
- East side of Douglas Avenue from south project limits to Station 233+50.
- East side of Douglas Avenue from Station 240+39 to the north project limits.
- South side of Kewaunee Street from west project limits to east project limits.
- South side of High Street from west project limits to east project limits.
- North side of Rapids Drive from west project limits to Station 233+50 on Douglas Avenue.
- East side of Charles Street from South project limits to Station 240+39.
- Beginning at Station 240+39 on Douglas Avenue then along the south side of English Street to the east project limits.

The following underground facilities are in conflict:

	Station	Offset	Resolution
Hamilton Street			
Manhole	104+29	10.3' LT	AT&T to adjust manhole during construction
Douglas Avenue			
Underground Line	Project limits	RT	Existing line will be lowered prior to construction to be below any EBS required for the project.
Manhole	200+21	18.9' RT	AT&T to adjust manhole during construction
Manhole	200+40	23.6' RT	Manhole to be removed prior to construction
Manhole	205+27	18.9' RT	AT&T to adjust manhole during construction
Manhole	209+73	17.5' RT	AT&T to adjust manhole during construction
Manhole	216+18	16.3' RT	AT&T to adjust manhole during construction
Manhole	216+24	21.3' RT	AT&T to adjust manhole during construction
Manhole	221+70	17.7' RT	AT&T to adjust manhole during construction
Manhole	226+13	17.1' RT	AT&T to adjust manhole during construction
Manhole	229+66	17.4' RT	AT&T to adjust manhole during construction
Manhole	233+55	16.5' RT	AT&T to adjust manhole during construction
Connection to We Energies pole	239+71	46.7' RT	We Energies will be relocating this pole and AT&T will reconnect to relocated pole prior to construction.
Manhole	240+39	16.2' RT	AT&T to adjust manhole during construction
Manhole	244+59	16.2' RT	AT&T to adjust manhole during construction
Manhole	247+99	17.6' RT	AT&T to adjust manhole during construction
High Street			
Manhole	59+05	7.2' RT	AT&T to adjust manhole during construction
Rapids Drive			
Utility pole	74+13	10.5' LT	Pole to be removed prior to construction



AT&T Wisconsin will be responsible for adjusting their manholes during the project. Contact AT&T Wisconsin 5 business days prior to needing the adjustments to be done. It is estimated that it will take 4 hours to adjust each manhole.

The AT&T Wisconsin contact person is Mark Eder at (262) 896-7434.

### **Charter Communications**

Charter Communications has aerial facilities at the following locations.

- South side of Hamilton Street from west project limits to the east project limits.
- Crossing Hamilton Street at Station 101+47, 104+34, and 107+26.
- North side of Albert Street from the west project limits to Station 34+52 LT.
- North side of Kewaunee Street from west project limits to east project limits.
- South side of English Street from Station 80+53 to east project limits.

The Charter Communications facilities are located on We Energies poles. These facilities will be relocated to new poles set by We Energies where conflicts exist prior to construction.

The Charter Communications contact person is Steve Cramer at (414) 277-4045, Cell (414) 688-2385.

### **City of Racine - Interconnect**

City of Racine has underground facilities at the following locations.

- South side of Hamilton Street from west project limits to Station 110+54.
- East side of Douglas Avenue from Station 243+97 to north project limits.
- South side of Yout Street from west project limits to Station 95+52.

The adjustment and modification to the interconnect system is included as part of the proposed improvements and have been identified in the plans. These items will be performed by the contractor as part of Project 2350-00-70.

### **City of Racine - Lighting**

City of Racine has underground facilities at the following locations.

- North and south side of Hamilton Street from west project limits to east project limits.
- East and west side of Douglas Avenue from south project limits to north project limits.

Lighting is included as part of the proposed improvements and have been identified in the plans. These items will be performed by the contractor as part of Project 2350-00-70.

### **City of Racine - Sanitary**

City of Racine Sanitary has underground facilities at the following locations.

- Center of Hamilton Street from west project limits to the east project limits.
- Center of Douglas Avenue from south project limits to the north project limits.

- Center of the following streets: Buchanan Street, Erie Street, Wisconsin Street, Main Street, Hubbard Street, Superior Street, Albert Street, Barker Street, LaSalle Street, Kewaunee Street, Marquette Street, St. Patrick Street, Dr. Martin Luther King Jr. Drive, High Street, Rapids Drive, Hagerer Street, Charles Street, and Yout Street.
- Lateral crossings on Hamilton Street and Douglas Avenue at multiple locations.

The adjustment and reconstruction of sanitary manholes is included as part of the proposed improvements and have been identified in the plans. These items will be performed by the contractor as part of Project 2350-00-70.

Rotate the cone of the manhole at Station 209+26, 22.9' LT to get the cover out of the proposed curb line and install new steps.

The City of Racine Sanitary contact person is Keith Haas at (262) 636-9434.

### **City of Racine - Water**

City of Racine Water has underground facilities at the following locations.

- North side of Hamilton Street from west project limits to the east project limits.
- East side of Douglas Avenue from south project limits to Station 222+00 and Station 229+85 to the north project limits.
- West side of Douglas Avenue from Station 222+00 to 229+85.
- East side of the following side streets; Buchanan Street, Erie Street, Main Street, Superior Street, LaSalle Street, Marquette Street, Dr. Martin Luther King Jr. Drive, and Charles Street.
- North side of the following side streets: Hubbard Street, Albert Street, Kewaunee Street, St. Patrick Street, Rapids Drive, Hagerer Street, English Street, and Yout Street
- North and South side of Barker Street and High Street.
- East and west side of Wisconsin Street.
- Lateral crossings on Hamilton Street and Douglas Avenue at multiple locations.

City of Racine Water will install a new water main along with hydrants and valves prior to construction on the south side of Hamilton Street from the west project limits to the east project limits and the west side of Douglas Avenue from the south project limits to St. Patrick Street, from High Street to English Street and from Yout Street to the north project limits. The existing water main will be discontinued in place.

The adjustment of water manholes is included as part of the proposed improvements and have been identified on the plans. These items will be performed by the contractor as part of Project 2350-00-70.

City of Racine Water will install a hydrant at the southwest corner of Douglas Avenue and Hamilton Street and at the southwest corner of Douglas Avenue and Rapids Drive and will also be responsible for adjusting water valves during the project. Contact Mark Carr at (262) 497-4614 when the hydrants may be installed and 5 business days prior to needing the

water valve adjustments to be done. It is estimated that it will take 8 hours to install each hydrant and 5 minutes to adjust each water valve.

The City of Racine Water contact person is Chad Regalia at (262) 497-4611.

### **Midwest Fiber Networks**

Midwest Fiber Networks has aerial facilities at the following locations.

- Yout Street from west project limits to the east project limits.

The Midwest Fiber Networks facilities are located on We Energies poles. These facilities will be relocated to new poles set by We Energies where conflicts exist prior to construction.

The Midwest Fiber Networks contact person is Jeanne Lisak at (414) 431-0626.

### **TDS Metrocom**

TDS Metrocom has underground facilities at the following locations.

- South side of Hamilton Street from West project limits to Station 103+85.
- Crossing Hamilton Street then running north at Station 103+85

The following facilities are in conflict:

	Station	Offset	Resolution
Hamilton Street			
Manhole	103+85	28.25 RT	To be adjusted by TDS Metrocom during construction.

TDS Metrocom will be responsible for adjusting their manhole during the project. Contact TDS Metrocom 5 business days prior to needing the adjustment to be done. It is estimated that it will take 4 hours to adjust the manhole.

The TDS Metrocom contact person is Matthew Schulte at (262) 754-3063, Cell (262) 409-1177.

### **We Energies - Electric**

We Energies has aerial facilities at the following locations.

- South side of Hamilton Street from west project limits to east project limits.
- East side of Buchanan Street from Station 5+00 to north project limits.
- East side of Erie Street from south project limits to north project limits.
- East side of Wisconsin Street from south project limits to north project limits.
- South side of Hubbard Street from Station 25+57 to east project limits.
- East side of Superior Street from south project limits to Station 29+41.
- North side of Albert Street from west project limits to Station 34+53.
- North side of Barker Street from Station 35+95 to east project limits.
- West side of LaSalle Street from Station 41+01 to north project limits.
- North side of Kewaunee Street from west project limits to east project limits.

- West side of Marquette Street from south project limits to Station 49+24.
- North side of St. Patrick Street from west project limits to east project limits.
- North side of High Street from west project limits to Station 58+24.
- North side of Rapids Drive from west project limits to Station 73+60 then crossing the road to the south side at Station 74+58 and continuing to Station 75+07.
- West side of Charles Street from south project limits to Station 79+72 and Sta. 85+50 to north project limits.
- South side of English Street from Station 80+53 to east project limits.
- South side of Yout Street from west project limits to east project limits.

The following facilities are in conflict:

	Station	Offset	Resolution
Main Street			
Guy wire	19+50.4	29.9' LT	Pole and guy wire to be moved prior to construction
Douglas Avenue			
Power Pole	199+83.7	46.86 RT	Pole to be moved prior to construction
Guy wire	239+76.6	37.1' RT	Pole and guy wire to be moved prior to construction
Power Pole	244+09.0	34.9' RT	Pole to be moved prior to construction
Power Pole	244+43.4	34.2' LT	Pole to be moved prior to construction
MLK Drive			
Power Pole	63+29.7	70.7' LT	Pole to be moved prior to construction
Rapids Drive			
Power Pole	73+60.3	22.4' LT	Pole to be moved prior to construction

We Energies has aerial lines connecting to existing light poles or trolley poles. These connections will be rerouted or set on separate poles prior to construction.

There are existing lights attached to We Energies poles that will need to be removed when the new lighting is installed. Contact We Energies to coordinate removals of these lights and poles.

The We Energies contact person is Mike Mlinar at (262) 886-7027, Cell (414) 322-0657.

## **We Energies - Gas**

We Energies has underground facilities at the following locations.

- North side of Hamilton Street from Station 101+50 to Station 106+82.
- West side of Douglas Avenue from south project limits to Station 199+74, Station 200+64 to Station 208+34, Station 209+50 to Station 209+92, Station 211+75 to Station 219+45, Station 221+71 to Station 229+84, and Station 248+47 to the north project limits.
- East side of Douglas Avenue from Station 200+91 to Station 204+97, Station 205+90 to Station 209+56, Station 212+45 to Station 215+69, Station 221+26 to Station 227+14, Station 230+19 to Station 231+19, Station 235+52 to Station 240+93, and Station 244+57 to the north project limits.
- Crossing Hamilton Street at Station 102+99 and Station 106+82.
- Crossing Douglas Avenue at multiple locations
- West side of Erie Street from Station 10+22 to north project limits.
- West side of Wisconsin Street from south project limits to north project limits.
- South side of Hubbard Street from Station 25+32 to east project limits.
- West side of Superior Street from south project limits to Station 29+67.
- South side of Albert Street from west project limits to Station 34+66.
- South side of Barker Street from Station 35+73 to east project limits.
- West side of LaSalle Street from south project limits to Station 39+71.
- North side of Kewaunee Street from Station 45+25 to east project limits.
- West side of Marquette Street from south project limits to Station 49+17.
- South side of St. Patrick Street from west project limits to Station 52+71 and Station 53+56 to east project limits.
- North side of High Street from Station 60+14 to east project limits.
- South side of Rapids Drive from west project limits to Station 73+62.
- South side of Hagerer Street from Station 75+64 to east project limits.
- West side of Charles Street from south project limits to north project limits.
- South side of English Street from Station 80+00 to east project limits.
- North side of Yout Street from Station 95+18 to east project limits.

We Energies will install a new gas main prior to construction in the following approximate locations and offsets locations on Hamilton Street and Douglas Avenue:

- Station 101+50 to 106+77 LT; under the sidewalk
- Station 106+77; crossing Hamilton Street
- Station 200+60 to 208+20 LT; under the sidewalk
- Station 205+00; crossing Douglas Avenue
- Station 215+00 to 218+48 LT; under the sidewalk
- Station 218+65 to 221+18 RT; under the sidewalk
- Station 221+18 to 221+90 RT; under the sidewalk on both sides of St. Patrick Street and crossing St. Patrick Street at Station 54+04.
- Station 221+90 to 227+00 RT; under the sidewalk
- Station 52+50; crossing St. Patrick Street.
- Station 222+15 to 229+75; under the sidewalk

- Station 60+50 to 231+10 RT; two to three feet from building face
- Station 235+50 to 236+00; under the sidewalk
- Station 239+60 to 80+60 RT; under the sidewalk
- Station 81+25; crossing English Street
- Station 80+32 to 81+25 LT; under the sidewalk
- Station 240+35 to 240+75 RT; under the sidewalk
- Station 240+75 to 87+81 RT; under the sidewalk
- Station 95+35 to 96+50; 23' LT
- Station 244+75 to 246+00; 37' RT
- Station 246+00 to 249+75 LT; under the sidewalk
- Station 248+25; crossing Douglas Avenue

All existing gas lines adjacent to new lines will be discontinued in place. Crossings at 106+80, 204+70, 239+95, and 248+25 will be discontinued in place

There are underground lines which are located 1' to 1.5' behind trolley poles will remain in place. Care shall be taken when removing the trolley poles so the removal of the poles does not damage the underground lines.

We Energies will be responsible for adjustment of gas valves during the project. Contact We Energies 5 business days prior to needing the adjustments to be done. It is estimated that it will take 45 minutes to adjust each gas valve.

The We Energies contact person is Chris DeGrave at (262) 886-7018.

## **8. Erosion Control.**

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

Provide the ECIP 14 calendar days prior to the pre-construction conference. Provide 1 copy of the ECIP to WisDOT and 1 copy of the ECIP to the WDNR Liaison (Kristina Betzold). Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-topsoiling to minimize the period of exposure to possible erosion. Do not implement the ECIP until it has been approved by the department.

Re-topsoil of graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as designated by the engineer, within 5 calendar days after placement of topsoil. If graded areas are left exposed for more than 14 calendar days, seed those areas with temporary seed and mulch.

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

All saw cut concrete slurry should be squeegeed to gutter pan and shoveled behind curb head or picked up/hailed away. Concrete slurry shall not be allowed to drain into storm sewer inlets.

Stockpile excess material or spoils on upland areas away from wetlands, floodplains and waterways. Stockpiled soil shall be protected against erosion. If stockpiled material is left for more than 14 calendar days, seed the stockpile with temporary seed and mulch.

Do not pump water from the construction site to a storm water conveyance without the water first passing through a sediment trap or filter bag.

## **9. Municipality Acceptance of Sanitary Sewer and Water Main Construction.**

Both the department and City of Racine personnel will inspect construction of sanitary sewer and water main under this contract. However, construction staking, testing, and acceptance of the sanitary sewer and water main construction will be by the City of Racine.  
stp-105-001 (20140630)

## **10. Referenced Construction Specifications.**

Construct the sanitary sewer and water main work conforming to the Standard Specifications for Sewer and Water Construction in Wisconsin, Latest edition. 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.  
stp-105-002 (20130615)

## **11. Public Convenience and Safety.**

*Revise standard spec 107.8(6) as follows:*

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 8:00 PM until the following 7:00 AM, unless prior written approval is obtained from the engineer.  
stp-107-001 (20060512)

## **12. 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 prior to the start of work under this contract and hold two meetings per month thereafter. The contractor shall arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for the meeting(s). The contractor shall schedule the meeting(s) with at least two weeks prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

### **13. Abandoning Sewer, Item 204.0291.S.**

#### **A Description**

This special provision describes abandoning existing sewer by filling it with cellular concrete according to the pertinent requirements of standard spec 204 and standard spec 501, as shown in the plans, and as hereinafter provided.

#### **B Materials**

Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.5.3 Provide water meeting the requirements of standard spec 501.2.4.

#### **C Construction**

Fill the abandoned sewer pipe with cellular concrete as directed by the engineer. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

#### **D Measurement**

The department will measure Abandoning Sewer in volume by the cubic yard according to standard spec 109.1.3.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.

stp-204-050 (20080902)

### **14. Removing Lighting Units, Item 204.9060.S.01.**

#### **A Description**

The work under this item consists of removing lighting poles (trolley type, anchor base aluminum type and direct buried concrete type), mast arms, trombone arms, luminaires, transformer bases, cabling and appurtenances as shown in the plans; splicing through the circuit as required at the given site; transporting removed aluminum pole shafts, direct buried concrete



poles, aluminum trombone arms, aluminum luminaire arms, aluminum transformer bases, banners, banner arms and LED luminaires to the city maintenance yard; and removal and disposal of trolley poles, HPS luminaires, pole wiring and remaining materials off site in an acceptable manner.

Work includes removal of concrete ballast around trolley poles.

Work includes removal of traffic signals, trombone arms and associated wiring on lighting units.

Removal of concrete bases for anchor base type poles will be paid under a separate pay item.

#### **B (Vacant)**

#### **C Construction**

Transport banners, banner arms, LED luminaires and direct buried concrete light poles to the city maintenance yard.

Dispose of remaining materials; recycle materials where possible.

Remove associated underground conductors feeding lighting units being removed.

#### **D Measurement**

The department will measure Removing Lighting Units, completed according to the contract accepted, as a single complete unit of work for each removal.

#### **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.01	Removing Lighting Units	EACH

Payment is full compensation for removing, transporting and/or disposing of the pole, mast arms, banners, banner arms, trombone arms, concrete ballast, traffic signals, transformer bases and luminaires; and for removing related underground or above ground cable, splicing through the underground circuit.

### **15. Removing Trolley Poles, Item 204.9060.S.02.**

#### **A Description**

The work under this item consists of removing trolley poles (ones without lights), cabling and appurtenances as shown in the plans; transporting removed banners and banner arms to the city maintenance yard; and removal and disposal of trolley poles, concrete base and remaining materials off site in an acceptable manner.

Work includes removal of concrete footing around trolley poles.

**B (Vacant)**

**C Construction**

Transport banners and banner arms to the city maintenance yard.

Dispose of remaining materials; recycle materials where possible.

**D Measurement**

The department will measure Removing Trolley Poles, completed according to the contract accepted, as a single complete unit of work for each removal.

**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 Trolley Poles	EACH

Payment is full compensation for removing, transporting and/or disposing of the pole, concrete footing, banners and banner arms; and for removing above ground cables.

**16. Removing Lighting Control Cabinets, Item 204.9060.S.03.**

**A Description**

This special provision describes removing lighting control cabinets and associated utility pole mounted equipment.

**B (Vacant)**

**C Construction**

Dispose of materials in appropriate manner; recycle materials where possible.

Remove utility pole mounted photocontrol, transformer and associated conductors/conduits associated with lighting control cabinet being removed.

**D Measurement**

The department will measure Removing Lighting Control Cabinets, completed according to the contract accepted, as a single complete unit of work for each removal.

**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.03	Removing Lighting Control Cabinets	EACH

Payment is full compensation for removing and disposing of the cabinet, electrical components, concrete base, pole mounted transformer and photocontrol, and associated conduits/conductors; and for removing related underground cable, splicing through the underground circuits.

**17. Removing Wood Poles, Item 204.9060.S.04.**

**A Description**

This special provision describes removing existing wood poles including insulators, down guys, risers, junction boxes, and appurtenances as shown in the plans and required from the site. Disconnect from circuit(s) to remain as required.

**B (Vacant)**

**C Construction**

Dispose of wood poles and related materials off the site.

**D Measurement**

The department will measure Removing Wood Poles, completed according to the contract accepted, as a single complete unit of work for each removal.

**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.04	Removing Wood Poles	EACH

Payment is full compensation for removals and disposal of materials; and for backfilling.

**18. Removing Trolley Tracks, Item 204.9090.S.01.**

**A Description**

This special provision describes removing Trolley Tracks according to the pertinent provisions of standard spec 204 and as hereinafter provided.

**B (Vacant)**

**C Construction**

Remove all rails, paving, ties, track encasement, concrete or granite block base and all other appurtenances.

**D Measurement**

The department will measure Removing Trolley Tracks in linear feet, acceptably completed, measured along single track lines, tracks with two rails.

**E Payment**

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Trolley Tracks	LF

stp-204-025 (20150630)

**19. Removing Aerial Cable, Item 204.9090.S.02.****A Description**

This special provision describes removing aerial cable and insulators, as shown in the plans, splicing through the circuit if required at the given site, and removing materials from the site.

**B (Vacant)****C Construction**

Disconnect aerial cable and related appurtenances. Dispose of materials off the site. Restore splices inside of lighting units to remain in an appropriate manner. Re-install pole caps.

**D Measurement**

The department will measure Removing Aerial Cable, completed according to the contract accepted, by the linear foot of work.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.02	Removing Aerial Cable	LF

Payment is full compensation for removing aerial cable and insulators as required and, if required, for splicing through the circuit for operation.

**20. Remove Traffic Signals, Hamilton Street & Main Street, Item 204.9105.S.01; Douglas Avenue & Marquette Street, Item 204.9105.S.02; Douglas Avenue & High Street, Item 204.9105.S.03; Douglas Avenue & Yout Street, Item 204.9105.S.04.****A Description**

This special provision describes removing and salvaging of above and underground existing traffic signals at the intersections of Hamilton Street & Main Street, Douglas Avenue & Marquette Street, Douglas Avenue & High Street and Douglas Avenue & Yout Street according to the pertinent provisions of standard spec 204 and as hereinafter provided. This item includes removal of all existing concrete bases, pull boxes at the intersection.

## **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.

Notify the John Dirkintus at the City of Racine at (262) 770-9588 at least three working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

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

#### Remove and salvage the following items as described below:

Remove all standards, poles, and cabinet from their concrete footings and disassemble out of traffic. Salvage all controller cabinets and internal equipment. Traffic signal heads may remain intact to each signal standard. Remove pedestrian heads from traffic signal poles. Salvage single-head pedestrian indications. Mast arms, luminaire arms, lighting fixtures, wiring/cabling, shall be removed from each pole (unless otherwise directed by city Staff). Ensure that all access hand hole doors and all associated hardware remain intact. Pull box lids and rims shall be removed and returned the City of Racine. Remove and salvage wireless antennas and related hardware at Marquette/ St. Patrick, High Street and Yout Street. Remove and salvage video detection cameras and related hardware at Hamilton Street and Main Street.

Deliver the salvaged materials to the City of Racine at 1415 Hampden Place. Contact the John Dirkintus at the City of Racine at (262) 770-9588 at least three working days prior to delivery to make arrangements.

#### Remove and dispose of the following items as described below:

The contractor shall remove and properly dispose of signal heads not attached to standard poles, non-12-inch signal heads and double pedestrian heads. Corrugated pull box bodies, concrete bases, loop detector wire, and all conductors and wires (including loop detector lead in cable) shall be removed and properly disposed of off the right-of-way. Conduit shall be removed or abandoned in place. Conduit may be abandoned in place only if it does not interfere with new construction or present a risk of damage to newly constructed items.

### **D Measurement**

The department will measure Remove Traffic Signals (Intersection) as a single lump sum unit of work for each intersection, acceptably completed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.01	Remove Traffic Signals, Hamilton Street & Main Street	LS
204.9105.S.02	Remove Traffic Signals, Douglas Avenue & Marquette Street	LS
204.9105.S.03	Remove Traffic Signals, Douglas Avenue & High Street	LS
204.9105.S.04	Remove Traffic Signals, Douglas Avenue & Yout Street	LS

Payment is full compensation for removing and disassembling traffic signals, scrapping of some materials, storing salvaged items on site, disposing of scrap material, reinstalling some materials, and for delivering the indicated materials to the City of Racine.

## **21. Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.**

### **A Description**

#### **A.1 General**

This special provision describes excavating, loading, hauling, and disposing of petroleum contaminated soil at a DNR approved bioremediation facility. The closest DNR approved bioremediation facilities are:

Republic Kestrel Hawk Landfill  
1989 Oakes Road  
Racine, WI 53406  
(262) 884-7081

Advanced Disposal Emerald Park Landfill  
W124 S10629 124<sup>th</sup> Street  
Muskego, WI 53150  
(414) 529-1360

Waste Management Metro Landfill  
10712 South 124<sup>th</sup> Street  
Franklin, WI 53132  
(414) 529-6180

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

#### **A.2 Notice to the Contractor – Contaminated Soil Location(s)**

The department and others completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that soil

contaminated with petroleum volatile organic compounds (PVOCs) is present at the following location(s) as shown on the plans where excavation is required:

- STH 32 (Hamilton Street) from Station 109+50 to 110+50, from project limits left to project limits right, from 1' bgs to the maximum depth of excavation. Soil contains petroleum volatile organic compounds and must be managed. Approximately 119 cubic yards (approximately 202 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location for storm sewer and signal base installations.
- STH 32 (Douglas Avenue) from Station 206+00 to 208+00, from STH 32 centerline to project limits left, from 1' bgs to the maximum depth of excavation. Soil contains petroleum volatile organic compounds and must be managed. Approximately 392 cubic yards (approximately 366 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location for storm sewer installations.
- Lasalle Street from Station 38+85 to 39+75, from project limits left to project limits right, from 1' bgs to the maximum depth of excavation. Soil contains petroleum volatile organic compounds and must be managed. Approximately 155 cubic yards (approximately 265 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location for storm sewer installations.
- STH 32 (Douglas Avenue) from Station 233+00 to 234+00, from the STH 32 centerline to project limits left, from 2' bgs to 8' bgs. Soil contains petroleum volatile organic compounds and must be managed. Approximately 137 cubic yards (approximately 233 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location for storm sewer installations.
- STH 32 (Douglas Avenue) from Station 238+50 to 240+00, from the STH 32 centerline to project limits left, and Charles Street from Station 78+50 to 80+00, from the Charles Street centerline to project limits right, from 4' bgs to at least 10' bgs. Soil contains petroleum volatile organic compounds and must be managed. Approximately 21 cubic yards (approximately 36 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location for storm sewer installations.
- STH 32 (Douglas Avenue) from Station 244+50 to 246+50, from the STH 32 centerline to project limits right, and Yout Street from Station 95+00 to 96+00, from the Yout Street centerline to project limits left, from 4' bgs to 14' bgs. Soil contains petroleum volatile organic compounds and must be managed. Approximately 18 cubic yards (approximately 31 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this location for storm sewer and signal base installations.

Directly load soil excavated by the project at the above locations into trucks that will transport the soil to a WDNR-licensed bioremediation facility

If contaminated soils are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. If dewatering is required at the above locations, conduct the dewatering according to Section C below.

The excavation management plan for this project has been designed to minimize the offsite disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence

letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities at these sites contact:

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

### **A.3 Coordination**

Coordinate work under this contract with the environment consultant:

Consultant: Natural Resource Technology (NRT), an OBG Company  
Address: 234 W. Florida Street, Fifth Floor, Milwaukee, WI 53204  
Contact: Mr. Mark Walter, PE  
Phone: (414) 837-3563  
Fax: (414) 837-3608  
E-mail: [Mark.Walter@obg.com](mailto:Mark.Walter@obg.com)

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the bioremediation facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the bioremediation facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed.

Identify the DNR approved bioremediation facility that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of



contaminated soils from the bioremediation facility. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

#### **A.4 Health and Safety Requirements**

*Add the following to standard spec 107.1:*

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

#### **B (Vacant)**

#### **C Construction**

*Add the following to standard spec 205.3:*

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 15 cubic yards excavated.

Directly load and haul soils designated by the environmental consultant for offsite bioremediation to the DNR approved bioremediation facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site bioremediation so as not to contain free liquids.

If dewatering is required in areas of known contamination, water generated from dewatering activities will likely contain PVOs. Such water may, with approval of the City of Racine WasteWater Utility, be discharged to the sanitary sewer or at the City of Racine WasteWater Utility directly as follows:

Meet all applicable requirements of the City of Racine WasteWater Utility, including the control of suspended solids. Perform all necessary monitoring to document compliance with this facility's requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with requirements.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Submit an ECIP Amendment for review and approval describing the dewatering operation. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in the contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

#### **D Measurement**

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil, accepted by the bioremediation facility as documented by weight tickets generated by the bioremediation facility.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via bioremediation of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary. Management and disposal of contaminated water is considered incidental to other bid items in the contract. The department will not pay directly for management and disposal/treatment of contaminated water.

stp-205-003 (20150630)

## **22. Backfill Controlled Low Strength, Item 209.0200.S.**

#### **A Description**

This special provision describes furnishing and placing a controlled low strength material designed for use as backfill in trenches for culverts, sewers, utilities, or similar structures, as backfill behind bridges abutments, or as fill for the abandonment of culverts, pipes, or tanks.

## **B Materials**

Provide controlled low strength backfill that consists of a designed cementitious mixture of natural or processed materials. Allowable materials include natural sand, natural gravel, produced sand, foundry sand, produced gravel, fly ash, Portland cement, and other broken or fragmented mineral materials. The designed mixture shall be self-leveling and shall be free of shrinkage after hardening. Design the mixture to reach a state of hardening such that it can support foot traffic in no more than 24 hours. Provide a mixture that also meets the following requirements.

Test	Method	Value
Flow (inch)	ASTM D-6103	9 min
Compressive	ASTM D-6024	20-40 @ 14 days
Strength (psi)		40-80 @ 28 days
		80-120 @ 90 days

Chemical admixtures to control air content and setting time are allowable. Ten days prior to placement, furnish the engineer with a design mix detailing all components and their proportions in the mix. Also, provide documentation from the supplier of the industrial byproducts that the foundry sand and fly ash used in the mixture meet the requirements for Industrial Byproducts Categories 1, 2, 3, or 4 in NR 538 of the Wisconsin Administrative Code for use as a confined geotechnical fill.

## **C Construction**

Place controlled low strength backfill at the locations and to the lines and grades as shown on the plan. Proportion and mix materials to produce a product of consistent texture and flow characteristics. The engineer may reject any materials exhibiting a substantial change in properties, appearance, or composition.

If the official Weather Bureau forecast for the construction site predicts temperatures at or below freezing within the next 24 hours after placement of controlled low strength backfill, protect the placed materials from freezing during that time period. If the temperature is not forecast to rise above 40° F for 72 hours after placement, the engineer may require protection from freezing for up to 72 hours.

No controlled low strength backfill shall be allowed to enter any stream, lake, or sewer system. The contractor shall be responsible for any clean up or remediation costs resulting from such occurrences.

## **D Measurement**

The department will measure Backfill Controlled Low Strength in volume by the cubic yard of material, placed and accepted. Such volume shall be computed from actual measurements of the dimensions of the area to be backfilled. In irregular or inaccessible areas, the engineer may allow volume to be determined by other appropriate methods.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
209.0200.S	Backfill Controlled Low Strength	CY

Payment is full compensation for designing the mix; supplying all materials; preparing the proportioned mix; hauling it to the construction site; placing the material; and protecting it from freezing.

stp-209-010 (20090901)

## **23. QMP Base Aggregate.**

### **A Description**

#### **A.1 General**

- (1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.
- (2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.
- (3) Do not apply this special provision to material placed and paid for under the Aggregate Detours, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.
- (4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
  1. Production and placement control and inspection.
  2. Material sampling and testing.
- (5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:  
<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/rdwy/default.aspx>

#### **A.2 Small Quantities**

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a contract quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.
- (2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

### **A.2.1 Quality Control Plan**

- (1) Submit an abbreviated quality control plan consisting of the following:
  1. Organizational chart including names, telephone numbers, current certification(s) with HTCP number(s) and expiration date(s), and roles and responsibilities of all persons involved in the quality control program for material under affected bid items.

### **A.2.2 Contractor Testing**

1.

<b>Contract Quantity</b>	<b>Minimum Required Testing per source</b>
≤ 6000 tons	One stockpile test prior to placement, and two production or one loadout test. <sup>[1] [2]</sup>
> 6000 tons and ≤ 9000 tons	One stockpile and Three placement tests <sup>[3]</sup> <sup>[4] [5]</sup>

- <sup>[1]</sup> Submit production test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.
  - <sup>[2]</sup> If the actual quantity overruns 6,000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.
  - <sup>[3]</sup> If the actual quantity overruns 9000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.
  - <sup>[4]</sup> For 3-inch material or lift thickness of 3-inch or less, obtain samples at load-out.
  - <sup>[5]</sup> Divide the aggregate into uniformly sized sublots for testing
2. Stockpile testing for concrete pavement recycled in place will be sampled on the first day of production.
  3. Until a four point running average is established, individual placement tests will be used for acceptance. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
  4. Material represented by a subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

### **A.2.3 Department Testing**

- (1) The department will perform testing as specified in B.8 except as follows:
  - Department stockpile verification testing prior to placement is optional for contract quantities of 500 tons or less.

## **B Materials**

### **B.1 Quality Control Plan**

- (1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

- (2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:
  1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
  2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
  3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
  4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
  5. Descriptions of stockpiling and hauling methods.
  6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
  7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

## B.2 Personnel

- (1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

Required Certification Level:	Sampling or Testing Roles:
Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling <sup>[1]</sup>
Aggregate Technician I (AGGTEC-I) Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

<sup>[1]</sup> Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

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

## B.3 Laboratory

- (1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section  
3502 Kinsman Blvd.  
Madison, WI 53704  
Telephone: (608) 246-5388

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

## **B.4 Quality Control Documentation**

### **B.4.1 General**

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

### **B.4.2 Records**

- (1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within one business day after obtaining a sample. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

### **B.4.3 Control Charts**

- (1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.
- (2) Provide control charts to the engineer within one business day after obtaining a sample. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:
  1. Contractor individual QC tests.
  2. Department QV tests.
  3. Department IA tests.
  4. Four-point running average of the QC tests.
- (3) Except as specified under B.8.2.1 for nonconforming QV placement tests, include only QC placement tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

## **B.5 Contractor Testing**

- (1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.
- (2) Perform one stockpile test from each source prior to placement.

- (3) Test gradation once per 3000 tons of material placed or fraction thereof. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples or lift thickness of 3-inch or less from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.
- (4) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.
- (5) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (6) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.
- (7) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

## **B.6 Test Methods**

### **B.6.1 Gradation**

- (1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:  
 Gradation..... AASHTO T 27  
 Material finer than the No. 200 sieve..... AASHTO T 11
- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.
- (3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
  1. Control limits are at the upper and lower specification limits.
  2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
  3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.



4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

### **B.6.2 Fracture**

- (1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.
- (2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

### **B.6.3 Liquid Limit and Plasticity**

- (1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.
- (2) Ensure the material conforms to the limits specified in standard spec table 301-2.

## **B.7 Corrective Action**

### **B.7.1 General**

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

### **B.7.2 Placement Corrective Action**

- (1) Do not blend additional material on the roadbed to correct gradation problems.
- (2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
  1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
  2. For fracture, increase the QC testing frequency to at least one test per gradation test.
- (3) If corrective action improves the property in question such that the running average after four additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after four additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.
- (4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

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

## **B.8 Department Testing**

### **B.8.1 General**

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

### **B.8.2 Verification Testing**

#### **B.8.2.1 General**

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
  1. Perform one stockpile test from each source prior to placement.
  2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.
- (3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates or for a lift thickness of 3-inch or less, the department will collect samples at load-out. The department will split each sample, test half for QV, and retain half.
- (4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

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

### **B.8.3 Independent Assurance**

- (1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
  1. Split sample testing.
  2. Proficiency sample testing.
  3. Witnessing sampling and testing.
  4. Test equipment calibration checks.
  5. Reviewing required worksheets and control charts.
  6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

### **B.9 Dispute Resolution**

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

### **C (Vacant)**

**D (Vacant)**

**E Payment**

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the non-performance of QMP administrative item.
- (2) For material represented by a running average exceeding a control limit, the department will reduce pay according to CMM 8-10.5.2 for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

stp-301-010 (20170615)

**24. Concrete Pavement Joint Layout, Item 415.5110.S.**

**A Description**

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

**B (Vacant)**

**C Construction**

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

**D Measurement**

The department will measure Concrete Pavement Joint Layout as a single lump sum unit for all joint layout designs and marking acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
415.5110.S	Concrete Pavement Joint Layout	LS

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

The department will adjust pay for crack repairs as specified in standard spec 415.5.3 stp-415-020 (20170615)

## **25. Landscape Planting Surveillance and Care Cycles.**

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of \$600 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.

stp-632-005 (20070510)

## **26. Signs Type I and II.**

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

*Supplement standard spec 637.2.4 with the following:*

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

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

Use beams a minimum of 6 feet in length or equal to the height of the sign to be supported, whichever is greater. Use U-bolts that are made of stainless steel, 1/2 inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

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

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

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

*Replace standard spec 637.3.3.2(2) with the following:*

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

*Supplement standard spec 637.3.3.3(3) with the following:*

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

*Add the following to standard spec 641.2:*

Submit shop drawings for sign bridges and overhead sign supports to SE Region Traffic Operations Engineer, Tom Heydel and Bureau of Structures.  
SER-637.1 (20170405)

## **27. Removing Signs Type II.**

Perform this work according to standard spec 638 and as hereinafter provided.

Remove and stockpile at a location within the right-of-way, outside of the construction limits, all salvageable signs and post for salvaging by the City of Racine. The contractor shall contact John Rooney, Assistant Commissioner of Public Works at (262) 636-9460 three days prior to removal.

## **28. Temporary Pedestrian Surface Plate, Item 644.1430.S.**

### **A Description**

This special provision describes providing, maintaining, and removing temporary pedestrian surface.

### **B Materials**

Furnish 1 1/4-inch dense graded aggregate conforming to standard spec 305.2. Furnish:

- Asphaltic surface conforming to standard spec 465.2.
- Pressure treated 2x4 framing lumber, pressure treated 3/4-inch plywood with skid resistant surface coating, and weather resistant deck screws 3-1/2-inch minimum for framing and 1-5/8-inch minimum for plywood.
- 1/4 inch minimum steel plate or commercially available prefabricated plates with skid resistant surface coating conforming to Americans with Disabilities Act Accessibility Guidelines. If placed in the roadway, must be able to handle a vehicle weight of 88,000 lbs.

### **C Construction**

Place, compact, and level a dense graded aggregate foundation before placing the surface.

Provide a firm, stable, and slip-resistant surface layer with vertical joints no higher than 1/4 inch and horizontal joints no wider than 1/2 inch. Sheet materials up to 1 inch thick may be lapped if the edge is beveled at 45 degrees or flatter. Asphalt may also be used to ramp up to materials up to 1 inch thick. Construct conforming to the following:

- Asphalt surface a minimum of 2 inches thick compacted with compactors, tampers, or rollers.
- Framed plywood panels 4 feet wide with a skid resistant surface coating.
- Steel or prefabricated plate with a skid resistant surface coating.

Align parallel to the existing roadway grade or, if outside of a street or highway right-of-way, do not exceed 5 percent longitudinal slope. Provide cross slope of 1 to 2 percent unless the engineer approves a steeper cross slope in writing.

Maintain the surface with a 4-foot minimum clear width and the specified joint and slope requirements. Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 203.3.4 when no longer required.

#### **D Measurement**

The department will measure temporary pedestrian surface by the square foot, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1430.S	Temporary Pedestrian Surface Plate	SF

Payment is full compensation for providing, maintaining, and removing temporary pedestrian surface.

stp-644-010 (20150630)

## **29. Temporary Curb Ramp, Item 644.1601.S.**

#### **A Description**

This special provision describes providing, maintaining, and removing temporary curb ramps.

#### **B Materials**

Furnish materials as follows:

- Asphaltic surface conforming to standard spec 465.2.
- Engineer-approved ready mixed concrete or ancillary concrete conforming to standard spec 602.2 except no QMP is required.
- Commercially available prefabricated curb ramps conforming to Americans with Disabilities Act Accessibility Guidelines.

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

### **C Construction**

Provide and maintain temporary curb ramps, including detectable warning fields, throughout the project duration. Place and compact a dense graded aggregate foundation before placing the curb ramp, unless the curb ramp is to be placed on existing roadway surface.

Remove and dispose temporary curb ramps and associated detectable warning fields when no longer required.

### **D Measurement**

The department will measure temporary curb ramps by each individual ramp, 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
644.1601.S	Temporary Curb Ramp	EACH

Payment is full compensation for providing, maintaining, and removing temporary curb ramps.

stp-644-020 (20150630)

## **30. Temporary Pedestrian Safety Fence, Item 644.1616.S.**

### **A Description**

This special provision describes providing, maintaining, and removing the temporary pedestrian safety fence.

### **B Materials**

Furnish notched metal “T” or “U” shaped fence posts weighing 1 1/3 pounds per foot or more.

Furnish select 2x4 dimensional lumber.

Furnish fence fabric meeting the following requirements.

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

The engineer may allow prefabricated fencing systems conforming to Americans with Disabilities Act Accessibility Guidelines.



### **C Construction**

Provide a continuous safety fence with the top edge free of sharp or rough edges.

Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 204.3 when no longer required.

### **D Measurement**

The department will measure Temporary Pedestrian Safety Fence 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
644.1616.S	Temporary Pedestrian Safety Fence	LF

Payment is full compensation for providing, maintaining, and removing the temporary pedestrian safety fence.

stp-644-025 (20150630)

## **31. Lighting Systems General.**

### **A General**

Work shall conform to standard spec 651, 652, 653, 654, 655, 656, 657 and 659 and these special provisions.

### **B Splices**

#### Lighting units:

Splices shall accept (4) #14-#2 conductors, be underground/overhead rated and include gel filled hinged splice closure. Utilize NSI Easy-Splice Gel Tap Splice Kit series connectors (ESGTS-2). Provide 2 layers of electrical tape around closure. Split bolts are not allowed.

#### Pull boxes:

Splices shall accept quantity and size of conductors required at individual pull boxes (which may be of differing configurations), be direct burial and submersible rated. Utilize multi-cable compression connectors with the splice encased in a Scotchcast 85 series multi-mold permanent resin compound. Split bolts are not allowed. No splices are allowed in pull boxes, unless indicated on the plans.

### **C Branch Circuit Tagouts**

Any circuit which the contractor does not personally tag out at the disconnect shall be considered live and is subject to being activated by another person with no notice to the contractor. Tagouts shall be made with manufactured tags, and shall be endorsed with the date and the name of the contractor. Tagouts shall be cleared at the end of the work day.

#### **D Threaded Fasteners**

All threaded fasteners (i.e. anchor bolts, screws, bolts, etc.) shall be liberally coated with an approved anti-seize compound, excess shall be wiped off. Excepting fasteners inside control cabinets, fasteners up to half an inch in diameter shall be stainless steel.

#### **E Circuit Identification**

Color coding shall be accomplished by use of cable jackets' of the proper color. All tails of all splices shall be coded. Secondary distribution circuits shall be color-coded as shown on the plans; the ground conductor shall be green.

Each accessible location of underground cable in control cabinets, pull boxes and pole/transformer bases shall have a permanent embossed 304 stainless steel tag with 3/16" characters (equal to Panduit #MEHT187 system) attached in a "flag" manner using a black outdoor rated nylon tie. The tag shall include information identifying the cabinet and conductor circuit number (i.e. DB-1).

#### **F Existing Underground Wiring**

Existing underground conduit or duct shown or indicated to be removed, shall be removed and disposed of properly to extent possible, otherwise it shall be abandoned below grade. All conductors within underground conduits, structure conduits or duct shall be removed and disposed of. Work shall be incidental to other related work.

### **32. Traffic Signals, General.**

The contractor shall furnish all materials, which include, the traffic signal controller, the traffic signal cabinet, and traffic signal control equipment as listed in the plans (such as pedestal bases, transformer bases, traffic signal standards, poles, trombone arms, traffic signal faces, backplates, pedestrian signal faces, pedestrian push buttons, traffic signal mounting hardware, foundations, video detection, etc.).

The contractor shall remove and salvage the existing traffic signals equipment as described in the project specifications. All salvaged traffic signal materials shall be delivered to the City of Racine. All other traffic signal materials shall be properly disposed of off the right-of-way.

The contractor shall obtain the necessary electrical permits from the City of Racine prior to beginning the work. The contractor shall be responsible for any permit fees, fines, penalties, damage done to property, etc., billed by the City of Racine.

The contractor is responsible for requesting the electrical service relocation from the power company and the City of Racine shall pay the relocation costs.

The contractor shall stake the proposed locations of traffic signal items 10 days prior to starting work so that the locations of the proposed facilities can be approved by the City of Racine. Any field changes regarding the location of the signal poles, pull boxes, etc. shall be approved by the City of Racine.

The contractor shall request a signal inspection of the completed signal installation. This request shall be made to the engineer at least five working days prior to the time of the requested inspection. The City of Racine has the option to be present during final inspection by the engineer.

The contractor shall provide the City of Racine two complete as-built traffic signal plan copies for each intersection showing the layout of the traffic signals taking into account any changes during construction.

Note that failure to comply with the state standards and specifications may result in the cost of the corrections to be made at the contractor's expense.

### **33. Video Detection System - General.**

Video detection zones shall be set near the vicinity and within the approximate distance from the stop bar as shown on the plans.

In the event, at installation, a noticeable obstruction is present in line with the video detection zone(s), the contractor shall be obligated to advise the engineer before setting the zone.

The all cables associated with the video detection system shall be routed to the controller. Each lead shall be appropriately marked as to which street or avenue it is associated.

The video detection system as specified and shown in the plans shall be complete in place, tested, and in full operation.

### **34. Electrical Wire Lighting 12 AWG, Item 655.0610; Electrical Wire Lighting 4 AWG, Item 644.0630.**

*Supplement standard spec 655.2.6 with the following:*

Furnish single conductor, color coded, stranded copper, XLP insulated, XHHW-2 rated and sized as the plans show for underground network conductors. Coordinate color coding where extending existing circuiting.

### **35. Electrical Service Main Lugs Only Meter Pedestal, Cabinet DB, Item 656.0400.01; Electrical Service Main Lugs Only Meter Pedestal, Cabinet DC, Item 656.0400.02.**

*Supplement standard spec 656 with the following:*

The City of Racine will apply for utility service and will pay for all required utility extension fees.

The pedestal shall be professionally painted to match the color of the lighting control cabinet.

- 36. Electrical Service Meter Breaker Pedestal, Intersection of Hamilton Street & Main Street, Item 656.0200.01; Electrical Service Meter Breaker Pedestal, Intersection of Douglas Avenue & Marquette Street, Item 656.0200.02; Electrical Service Meter Breaker Pedestal, Intersection of Douglas Avenue & High Street, Item 656.0200.03; Electrical Service Meter Breaker Pedestal, Intersection of Douglas Avenue & Yout Street, Item 656.0200.04.**

*Append standard spec 656.3.4 with the following:*

The contractor shall be responsible for arranging the electrical service installation.

Electrical utility company service installation will be billed to and paid for by the City of Racine.

Install the cabinet base and meter breaker pedestal first, so the electrical utility company can install the service lateral. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize and sod all areas that are disturbed by the electrical utility company.

*Append standard spec 656.5(3) with the following:*

Payment is full compensation for grading the service trench and replacing topsoil; and for fertilizing, seeding, and erosion-matted to restore the disturbed area of the service trench if necessary.

- 37. Traffic Signal Face 3S, Item 658.0173, Pedestrian Signal Face 5S, Item 658.0175.**

*Append standard spec 658.2.1 with the following:*

Traffic signal face housings shall have a black exterior finish.

- 38. Pedestrian Signal Face 16-Inch, Item 658-0416.**

*Append standard spec 658.2.1 with the following:*

Pedestrian signal face housings shall have a black exterior finish.

- 39. Signal Mounting Hardware, Intersection of Hamilton Street & Main Street, Item 658.5069.01; Intersection of Douglas Avenue & Marquette Street, Item 658.5069.02; Intersection of Douglas Avenue & High Street, Item 658.5069.03; Intersection of Douglas Avenue & Yout Street, Item 658.5069.04.**

*Append standard spec 658.2.1 with the following:*

Traffic and pedestrian signal mounting hardware shall have a black exterior finish.

#### **40. Crack and Damage Survey, Item 999.1500.S.**

##### **A Description**

This special provision describes conducting a crack and damage survey of the residences and business located at 1200 Main Street, 1401 Douglas Avenue, and 1705 Douglas Avenue.

This Crack and Damage Survey shall consist of two parts. The first part, performed prior to construction activities, shall include a visual inspection, digital images, and a written report describing the existing defects in the building(s) being inspected. The second part, performed after the construction activities, shall also include a visual inspection, digital images, and written report describing any change in the building's condition.

##### **B (Vacant)**

##### **C Construction**

Prior to any construction activities, thoroughly inspect the building structures for existing defects, including interior and exterior walls. Submit a written report with the inspector's name, date of inspection, descriptions and locations of defects, and digital images. The intent of the written report and digital images is to procure a record of the general physical condition of the building's interior and exterior walls and foundation. The report shall be in text form and submitted electronically.

Take the images with a digital camera capable of producing sharp, grain free, high-contrast colored digital images with good shadow details. Each digital image shall be labeled with the following information:

ID \_\_\_\_\_  
Building Location \_\_\_\_\_  
View looking \_\_\_\_\_  
Date \_\_\_\_\_  
Photographer \_\_\_\_\_

Prior to the start of any construction activities pertinent to this survey, submit a copy of the written report and digital images to the engineer electronically.

After the construction activities are complete, conduct another survey in the same manner, obtain digital images, and submit another written report to the engineer electronically.

In lieu of digital images, a digital video camera capable of producing sharp, high contrast, colored digital video with good shadow detail may be utilized to perform this work.

##### **D Measurement**

The department will measure Crack and Damage Survey as single complete lump sum unit of work, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
999.1500.S	Crack and Damage Survey	LS

Payment is full compensation for providing the before and after written reports, and for photographs or video.

stp-999-010 (20170615)

**41. Backfill for Plant Beds – 18-Inch Depth, Item SPV.0035.01.****A Description**

This special provision describes furnishing and installing Backfill for Plant Beds – 18-Inch Depth as shown on the plans, and as hereinafter provided. Construction work includes the excavation and removal of existing material and placement of new plant bed backfill mix.

**B Materials**

Backfill for Plant Beds – 18-Inch Depth shall be a blended mix consisting of the following ingredients and ratios:

70% topsoil as defined in standard spec 625.2 (1).

30% compost as defined in standard spec 632.2.

Provide fertilizer at levels for trees, shrubs and perennial plants as recommended by soil analysis.

Backfill for Plant Beds – 18-Inch Depth shall be free of debris, rocks larger than ½-inch and having a pH range of 5.5 to 6.5.

Product Data: Submit data on topsoil and compost used in Backfill for Plant Beds – 18-Inch Depth to engineer, for approval prior to construction.

**C Construction**

The installation of the Backfill for Plant Beds – 18-Inch Depth shall be according to the plans and details. Install backfill to a minimum depth of 18-inches, but not less than required to meet finish grades after natural settlement. Scarify subgrade and thoroughly blend backfill off-site before spreading. Do not spread if planting soil or subgrade is frozen, muddy or excessively wet. Grade planting beds to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges and fill depressions to meet finish grades.

**D Measurement**

The department will measure Backfill for Plant Beds – 18-Inch Depth by the cubic yard of backfill, 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	Backfill for Plant Beds – 18-Inch Depth	CY

Payment is full compensation for furnishing and delivering all Backfill for Plant Beds.

## **42. Field Facilities Office Space, Item SPV.0060.01.**

### **A Description**

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

### **B Materials**

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

*Replace standard spec 642.2.1(4) with the following:*

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

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

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

Provide for the professional cleaning of the field office during regular business hours twice monthly. Provide clearly marked recycling and waste receptacles within the field office, and separate recycling and waste dumpsters near the field office. Cover outdoor containers to

keep out rain, snow, and wind-driven debris. Provide regularly scheduled recycling and waste pick-up.

### **C Construction**

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

### **D Measurement**

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

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Field Facilities Office Space	EACH

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

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

SER-642.2 (20160808)

## **43. Adjusting Sanitary Manholes, Item SPV.0060.02.**

### **A Description**

This special provision describes the adjustment of existing sanitary manholes which includes a new Internal/External seal and a new casting.

Perform this work according to the pertinent provisions of standard spec 611 and the Standard Specifications for Sewer and Water Construction in Wisconsin, Latest edition, except as herein modified. The Standard Specifications for Sewer and Water Construction in Wisconsin is available by contacting the Public Works Industry Improvement Program, 2835 North Mayfair Road, Milwaukee, WI, or by calling (414) 778-1050.

### **B Materials**

Manhole Chimney seal available from Adaptor Inc., Cretex Specialty Products or approved equal.

Casting shall be Type J

Adjustments shall be made using concrete adjusting rings and mortar and conform to standard spec 611.



### **C Construction**

Perform work in accordance the Standard Specifications for Sewer and Water Construction in Wisconsin and standard spec 611.

The contractor shall contact John Rooney, Assistant Commissioner of Public Works at (262) 636-9460 3 days prior to removal to see if the City of Racine wants any of the castings.

### **D Measurement**

The department will measure Adjusting Sanitary Manholes as each individual sanitary 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.0060.02	Adjusting Sanitary Manholes	EACH

Payment is full compensation for adjusting the manhole to finish grade; for disposal of existing casting; for furnishing and installing Internal/External Adaptor seal, for furnishing and installing a new casting; and for construction, excavation, and backfilling.

## **44. Reconstructing Sanitary Manholes, Item SPV.0060.03.**

### **A Description**

This special provision describes the reconstruction of existing sanitary manholes which includes a new Internal/External seal and a new casting.

Perform this work according to the pertinent provisions of standard spec 611 and the Standard Specifications for Sewer and Water Construction in Wisconsin, Latest edition, except as herein modified. The Standard Specifications for Sewer and Water Construction in Wisconsin is available by contacting the Public Works Industry Improvement Program, 2835 North Mayfair Road, Milwaukee, WI, or by calling (414) 778-1050.

### **B Materials**

Manhole Chimney seal available from Adaptor Inc., Cretex Specialty Products or approved equal.

Casting shall be Type J

Adjustments shall be made using concrete adjusting rings and mortar and conform to standard spec 611. Reconstructions may require the drilling and installing new steps and the removal and re-installation of a new pre-cast concrete manhole cone section, with external joint wrap.

### **C Construction**

Perform work in accordance the Standard Specifications for Sewer and Water Construction in Wisconsin and standard spec 611.

The contractor shall contact John Rooney, Assistant Commissioner of Public Works at (262) 636-9460 3 days prior to removal to see if the City of Racine wants any of the castings.

**D Measurement**

The department will measure Reconstructing Sanitary Manholes as each individual sanitary 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.0060.03	Reconstructing Sanitary Manholes	EACH

Payment is full compensation for adjusting the manhole to finish grade; for disposal of existing casting; for furnishing and installing Internal/External Adaptor seal, for furnishing and installing a new casting; for drilling and installing new steps; and for construction, excavation, and backfilling.

**45. Adjusting Water Manholes, Item SPV.0060.04.**

**A Description**

This special provision describes the adjustment of existing water manholes.

**B Materials**

Adjustments shall be made using concrete adjusting rings and mortar and conform to standard spec 611.

**C Construction**

Perform work in accordance the Standard Specifications for Sewer and Water Construction in Wisconsin and standard spec 611.

**D Measurement**

The department will measure Adjusting Water Manholes as each individual water 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.0060.04	Adjusting Water Manholes	EACH

Payment is full compensation for adjusting the manhole to finish grade; and for construction, excavation, and backfilling.

#### **46. Drainage Grate, Item SPV.0060.05.**

##### **A Description**

This special provision describes furnishing and installing a drainage grate that fits into a 6-Inch pipe.

Perform this work according to the pertinent provisions of standard spec 611.

##### **B Materials**

Provide a drainage grate that fits into a 6-inch pipe and is flush with the surrounding pavement.

##### **C Construction**

Perform work in accordance standard spec 611.

##### **D Measurement**

The department will measure Drainage Grate as each individual grate, 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	Drainage Grate	EACH

Payment is full compensation for furnishing and installing the drainage grate, any needed adaptors between pipe and grate, and for excavating, backfilling, disposing of surplus materials.

#### **47. Abandon Existing Vault, Item SPV.0060.06.**

##### **A Description**

This special provision describes abandoning existing vault according to the pertinent provisions of standard spec 204 and as hereinafter provided.

##### **B (Vacant)**

##### **C Construction**

Remove existing cover and remove concrete wall to 18 inches below finished grade and in accordance standard spec 204.

##### **D Measurement**

The department will measure Abandon Existing Vault as each individual vault, 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	Abandon Existing Vault	EACH

Payment is full compensation for removing and disposing of cover and concrete walls.

**48. Moving Wheel Stops, Item SPV.0060.07.****A Description**

This special provision describes moving existing wheel stops.

**B (Vacant)****C Construction**

Remove existing wheel stops and anchors, handle, store and reinstall the wheel stops in a way that prevents damage to the wheel stops.

**D Measurement**

The department will measure Moving Wheel Stops as each individual wheel stop, 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	Moving Wheel Stops	EACH

Payment is full compensation for removing the existing wheel stop including anchors; for transporting and storing; and for installing and reanchoring.

**49. Temporary Relocation of Lighting Control Cabinet, Item SPV.0060.22.****A Description**

The work under this item consists of removing lighting control cabinet and temporarily relocating to maintain partial roadway lighting as indicated on the plans.

**B Materials**

Provide miscellaneous materials according to Standard Specifications to re-establish cabinet operation in a safe manner.

**C Construction**

Relocate cabinet to temporary wood pole. Reconnect electric service and photocontrol with aerial cable. Provide closure plate on bottom of cabinet. Coordinate work on utility pole with utility.

Relocation of cabinet shall be completed in a manner to maintain night time illumination.

Remove concrete base. Dispose of materials in appropriate manner; recycle materials where possible.

#### **D Measurement**

The department will measure Temporary Relocation of Lighting Control Cabinet, completed according to the contract accepted, as each complete unit of work.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.22	Temporary Relocation of Lighting Control Cabinet	EACH

Payment is full compensation for removing and relocating of the cabinet, electrical components, concrete base, and associated conduits/conductors; and for removing related underground cable, splicing through the underground circuits.

### **50. Decorative Lighting Units, Item SPV.0060.24.**

#### **A Description**

This special provision describes furnishing and installing lighting poles, luminaries, arms and appurtenances as specified herein and per the drawings.

Concrete base shall be paid under a separate pay item.

The lighting units shall be as manufactured by Holophane to match existing lighting units used in City of Racine.

#### **B Materials**

##### **B.1 Poles**

The completed lighting units shall be of such design as will withstand all loads to which the units will be subjected in the field, including the loads applied by metal banner to be attached to the lighting poles and arms, together with a minimum wind pressure resulting from a wind velocity of 80 mph (103 mph gust factor) in conformance with the requirements of AASHTO Specifications for the Design and Construction of Structural Supports for Highway Luminaires, Edition of 1985.

Poles shall be constructed from a one-piece tapered aluminum shaft welded to an anchor base with internal dumb bell style vibration damper and flush handhole as shown on the plans. The base shall be provided with bolt-on cast aluminum nut covers.

The pole and components shall be pretreated with a 7-stage process and finished with state of the art electrostatically applied black semi-gloss polyester powder paint.

## **B.2 Transformer Bases**

Transformer bases shall be standard type, accommodating 10-12 inch bolt circle, according to standard spec 657.2.2.5. A 12" square x 1/16" thick aluminum "cosmetic" plate shall be provided on the top of the base.

The base and components shall be pretreated with a 7-stage process and finished with state of the art electrostatically applied black semi-gloss polyester powder paint.

## **B.3 Mast Arms**

Mast arms shall be all aluminum, one-piece construction as detailed in plan set. It shall consist of a cast decorative post-mounting piece and a bent tube arm. All welding shall be per ANSI/AWS D1.2-90 and all welders shall be certified per ANSI/AWS D1.-90 Section S.

The cast pieces shall be heavy wall, copper free and produced from ASTM 356.1 ingot per ASTM B179-95a or ASTM B26-95. The bent tube shall be aluminum, ASTM 6061 alloy, heat-treated to a T6 temper. All hardware shall be stainless steel.

The arm shall slip-fit a post top tenon 3" OD x 9" tall. Nominal arm length shall be 72" per arm

Entire assembly shall be pretreated with a 7-stage process and finished with state of the art electrostatically applied black semi-gloss polyester powder paint.

## **B.4 Slipfitter:**

The slipfitter shall mate the pendant mount luminaire to horizontal luminaire arm, and be constructed of heavy wall cast aluminum with swivel threaded male connector providing  $\pm 4$  degree adjustment. The slipfitter shall provide for leveling the assembly by means of two captive hidden U-Bolts and leveling nuts. Provide  $\pm 5$  degree adjustment. A removable top cover with finial shall provide access for wiring. All mounting and locking hardware shall be stainless steel.

All cast aluminum components shall be alloy #356 copper free aluminum, pretreated with a 7-stage process and finished with state of the art electrostatically applied semi-gloss black polyester powder paint.

## **B.5 Luminaires**

Luminaire shall be the teardrop style as detailed in Plan. Nominal overall dimensions shall be 17" W x 34" H. Luminaire shall be provided in 83 watt LED configuration and operate at specified voltage.

The refractor shall be thermal resistant molded borosilicate prismatic glass cradled in a hinged cast aluminum door frame with single latch and shall have a maximum depth of 14".

The teardrop shaped refractor shall be combined with an internal COB LED's encased in a robust glass lens. The two lenses shall comprise the optical system which shall provide IES Type III Asymmetric distribution.

LED's are to be Chip-On-Board design, 5000K CCT. L70 lumen maintenance factor shall exceed 100,000hrs.

Nominal 83 watt unit shall utilize nominal 10,236 initial lumen LED output, 120-277V input voltage. BUG rating of B2-U3-G3.

Plastic or non-prismatic teardrop luminaires shall be deemed unacceptable. The complete assembly shall be rated IP65 and UL\CSA Listed for Wet Locations at 40 degree C.

A unitized electrical module equipped with the LED drivers and surge protection shall be accessible via a separate chamber and be capable of being removed without entering or disturbing the optical chamber. Surge Protection shall meet ANSI 136.2 specified 10kV\5kA rating and be UL1449 listed.

An additional separate wiring chamber shall be provided complete with a three station terminal block and plug assembly connection to the removable electrical module. The wiring chamber casting shall have an integral Quick Lock Stem casting designed to provide watertight and mechanical attachment to the horizontal arm slipfitter.

All cast housings and hinged doorframe components shall be copper free aluminum, pretreated with a 7-stage process and finished with state of the art electrostatically applied semi-gloss black polyester powder paint. All other hardware shall be stainless steel.

All electrical components shall have a nationally published 5-year manufacturer's warranty.

### **B.6 Pole Wiring**

Conductors from the underground cable network to the luminaire shall be #12 AWG Type XHHW (XLP) individual conductors. In each utilized phase conductor in the handhole, there shall be installed a 2-pole secondary inline 600 VAC fuse assembly with #12AWG copper crimp connections at each end, and a fast acting, current limiting type CC fuse.

### **C Construction**

The lighting unit shall be assembled and installed per the manufacturer's instructions. The contractor shall install unit with proper luminaire orientation and as indicated on the plans.

In-line fuseholder ends shall be insulated with electrical tape.

Pole conductors shall have sufficient length to permit removal of the fuse assembly through the handhole of the pole.

#### **D Measurement**

The department will measure Decorative Lighting Units as each individual unit, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.24	Decorative Lighting Units	EACH

Payment is full compensation for furnishing and delivering all materials, including poles, transformer bases, luminaries, mounting arms, pole wiring, appurtenances and all necessary hardware and fittings.

### **51. Type 1 LED Luminaires, Item SPV.0060.25; Type 2 LED Luminaires, Item SPV.0060.26.**

#### **A Description**

This special provision describes furnishing and installing LED luminaires and associated pole wiring as shown in the plans.

The luminaires shall be as manufactured by Cree (LEDway) to match existing luminaires used in City of Racine.

#### **B Materials**

##### **B.1 Luminaires**

LED luminaires shall be of a slim, low profile design optimized for minimum wind loading, constructed from rugged extruded aluminum and cast aluminum components. LED drivers are mounted in the aluminum housing which is suitable for wet listed operation (per UL 1598 requirements). Integrated high performance aluminum heat-sink specifically designed for LED applications. Finish includes an E-coat epoxy primer with an ultra-durable powder topcoat (gray/silver finish) resistant to corrosion and ultraviolet degradation and abrasion. Heat-sink finish is clear anodized.

Luminaire light distribution shall be equivalent to a Type 3 Medium.

The complete assembly shall be UL Listed for Wet Locations.

A unitized electrical module equipped with the LED drivers and surge protection shall be accessible via a separate chamber and be capable of being removed without entering or disturbing the optical chamber. Surge Protection shall meet ANSI 136.2 specified 10kV\5kA rating and be UL1449 listed.

An additional separate wiring chamber shall be provided complete with a three station terminal block and plug assembly connection to the removable electrical module.



The LED luminaires shall consist of 5700K ( $\pm 500$ ), 70CRI (min.), replaceable modular LED bars. L70 lumen maintenance factor shall exceed 150,000hrs.

Type 1 shall utilize 40 LEDs, nominal 7,481 initial lumen output, 91W, 120-277V input voltage. BUG rating of B2-U0-G2.

Type 2 shall utilize 60 LEDs, nominal 11,076 initial lumen output, 134W, 120-277V input voltage. BUG rating of B2-U0-G2.

Manufacturer's Warranty: 10 year on luminaire parts and finish.

### **B.2 Pole Wiring**

Conductors from the underground cable network to the luminaire shall be #12 AWG Type XHHW (XLP) individual conductors. In each utilized phase conductor in the handhole, there shall be installed a 1-pole (240/480V systems) or 2-pole (120/240V systems) secondary inline 600 VAC fuse assembly with #12AWG copper crimp connections at each end, and a fast acting, current limiting type CC fuse.

### **C Construction**

Install new LED luminaire on mast arm and reconnect existing pole wiring.

In-line fuseholder ends shall be insulated with electrical tape.

Pole conductors shall have sufficient length to permit removal of the fuse assembly through the handhole of the pole.

### **D Measurement**

The department will measure (type) LED Luminaires, completed according to the contract accepted, as each complete unit of work.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.25	Type 1 LED Luminaires	EACH
SPV.0060.26	Type 2 LED Luminaires	EACH

Payment is full compensation for furnishing and installing new LED luminaire and pole wiring.

## **52. Replace Pole Fusing, Item SPV.0060.27.**

### **A Description**

This special provision describes removing existing fusing and replacing with new fusing at existing lighting units as specified herein and per the drawings.

## **B Materials**

In each utilized phase conductor in the handhole, there shall be installed a 2-pole secondary inline 600 VAC fuse assembly with #12AWG copper crimp connections at each end, and a fast acting, current limiting type CC fuse.

Conductors from the underground cable network to the luminaire shall be #12 AWG Type XHHW-2 (XLP) individual conductors.

## **C Construction**

The existing fuse holder/fuses shall be removed. New fuseholders/fuses shall be installed in the existing phase conductor and previous neutral conductor serving the luminaire(s) in the pole.

The existing neutral conductors (underground and to luminaire) shall have at least 6-inches of properly colored tape applied to re-identify as a circuit conductor.

Provide additional luminaire pole wiring as needed so that fuse holder can be easily removed through pole handhole.

In-line fuseholder ends shall be insulated with electrical tape.

## **D Measurement**

The department will measure Replace Pole Fusing as each individual unit, acceptably completed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.27	Replace Pole Fusing	EACH

Payment is full compensation for furnishing and installing all materials, including fuse holders, fuses, tape and all necessary hardware and fittings.

## **53. Lighting Control Cabinets, Item SPV.0060.28.**

### **A Description**

This special provision describes furnishing and installing lighting control cabinet and concrete base as shown on the plans and hereinafter provided.

Meter pedestal is paid under a separate bid item.

### **B Materials**

#### **B.1 Contactor**

The contactor shall be mechanically held, Square D LGX series or equal by Cutler-Hammer or General Electric in a NEMA 1 enclosure with cover mounted hand-off-auto switch (with legend plate) – switch in separate enclosure is not allowed. A coil capable of operating at

the nominal voltage specified on the plans. Provide "LIGHTING CONTACTOR" ½" black text on white background engraved identification plaque on cover of enclosure. Same manufacturer shall be used as panelboard.

## **B.2 Photocell**

Provide a button type photocell that is rated for 1500W with 30-60 second delay between "on-off" operations.

## **B.3 Panelboard**

The panelboard shall be in a NEMA 1 enclosure as manufactured by Square D – NQ (20" wide x 38" high max.) or equal by Eaton or General Electric. Provide copper ground and split neutral bus bars in addition to copper bus bars. Provide bolt-on, thermal-magnetic circuit breakers that clearly indicate ON, OFF or TRIPPED position in the panel. Same manufacturer shall be used as contactor.

## **B.4 Enclosure**

The cabinet and door shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities. All inside and outside edges of the cabinet shall be free of burrs. The cabinet shall be designed with a sloped top to prevent the accumulation of water on its top surface. The door opening shall be double flanged on all four sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened. A door restraint shall be provided to prevent door movement in windy conditions. The enclosure interior back shall be provided with a rigid 5052-H32 aluminum equipment mounting panel having a thickness of .125 inch. The cabinet shall be rated NEMA 3R.

The cabinet door will be a minimum of 80% of the front surface area and shall be hinged on the right side when facing the cabinet. The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door. The hinges shall be continuous and bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts. The hinge will be made of .075 inch thick stainless steel and shall have .250 inch diameter stainless steel hinge pin. The hinge pin shall be capped top and bottom by weld to render it tamperproof. Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude. All bolt holes shall be gasketed. The latching mechanism shall be a 3-point draw roller type. Pushrods will be turned edgewise at the outwards supports and shall be .250 inch by .750 inch aluminum, minimum. Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 inch aluminum, minimum. An operating handle shall be furnished. The handle will be stainless steel with a 3/4 inch diameter shank. The latching handle shall have a provision for padlocking in the closed position. The lock shall be keyed dead bolt Corbin Lock or equivalent. Five keys will be furnished with each lock. No louvers in cabinet.

The enclosure shall have a factory applied black powder coat finish. The cabinet doors and any other parts to be painted will be treated with an iron phosphate conversion technique. After phosphatizing, the parts shall be baked to eliminate any moisture in seams. The finish coat of a Polyester Powder will be baked ten minutes at 400- 450 degrees F. The finish shall be commercially smooth, substantially free of flow lines, paint washout, streaks, blisters and other defects that would impair serviceability or detract from general appearance. NO manufacturer identification plaques/tags shall be visible on the exterior of the cabinet. Cabinet not to exceed size shown on the plans.

#### **B.5 Field Wiring Termination Blocks**

All connections from the field wiring to equipment in the lighting control cabinet shall be made through termination blocks. Provide quantity of channel mount NEMA rated, box lug, single terminal blocks as indicated on plans that are capable of holding #12 to #1/0 wire for power, neutral and grounding connections. The terminal blocks shall be mounted on a mounting channel (cut to appropriate length) with end anchors and an end barrier. Each terminal block shall have a typed label indicating the appropriate circuit number, neutral ('N') or ground ('G') wire connected to block; handwritten numbers and letters are not acceptable means of identification.

#### **B.6 Surge Arrester**

A compact surge protection device (SPD) shall protect the distribution system. The SPD shall provide all modes of surge protection, meet UL1449 Latest Edition with 50KA (min.) per phase surge current, contain LED line indicators. Connect the surge suppressor to the branch circuit breaker as indicated on the plans.

#### **B.7 Concrete Base**

Conform to standard spec 654.2 and the plans.

#### **C Construction**

Use a UL 508 Listed Panel Builder to assemble the lighting control cabinet. Assemble the lighting control cabinet with all of its electrical components, wiring and parts in a neat and orderly fashion and as shown on the plans. Pretest the cabinet prior to shipment to the site. Panel Builder shall apply UL label inside cabinet.

Mount all equipment to panel in enclosure. Train the cables in straight horizontal and vertical directions and be parallel next to and adjacent to other cables whenever possible. Install wiring in slotted wireway between terminal strip, contactor and panelboard. Secure all remaining wiring using screw attachment type straps; adhesive type will not be allowed.

Surge arresters shall be installed to allow LED indicator(s) to be readily visible when viewing inside of cabinet. Connect the surge arrester to the branch circuit breaker as indicated on the plans.

Install photocell in the overhang of the control cabinet facing down and apply silicon caulk to maintain integrity of the enclosure.

Make all connections from the field wiring to equipment in the lighting control cabinet through termination blocks.

Construct concrete base in conformance with standard spec 654.3 and as shown on the plans.

#### **D Measurement**

The department will measure the Lighting Control Cabinet as each individual unit, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.28	Lighting Control Cabinets	EACH

Payment is full compensation for photocontrol, contactors, panel, termination blocks, surge arrester, enclosure, meter breaker pedestal, grounding, concrete base and all necessary electrical components.

### **54. Wood Poles, Item SPV.0060.29.**

#### **A Description**

This special provision describes furnishing and installing wood poles, down guys, insulators and other incidental items required and as shown on the plans. All work shall be according to standard spec 651.

#### **B Materials**

Wood poles shall be Class V or larger with a 35' minimum overall length. The poles shall be northern pine according to ANSI standards 05.1 (specifications and dimensions of wood poles). Pressure treatment shall be 5% pentachlorophenol with a minimum of 8 pounds per cubic foot net retention of the oil-borne preservative.

Down guys shall be galvanized and meet the following requirements:

- (1) Three-eighths (3/8) inch nominal diameter 7-strand, zinc coated steel wire conforming to ASTM A475, 11,500 pounds minimum breaking strength, utilities grade or better.
- (2) A twin eye 5/8-inch nominal diameter anchor rod with a minimum breaking strength of 11,500 pounds.
- (3) An expanding or plate type anchor with an expanded area of 125 square inches or greater. A screw type anchor may be used provided the anchor is 10 inches in diameter, has 78 square inches of area and a rod diameter 1-1/4 inch by 66 inches or larger and galvanized.
- (4) A 7-foot PVC or plastic guy guard.

(5) Guy wire clamps shall be 3-bolt and have a minimum breaking strength of 11,500 pounds. A galvanized service sleeve shall be used to hold down the loose guy ends beyond the guy clamp.

(6) The dead-ends shall be made of the same material as the guy wire.

(7) A guy strain insulator ANSI Class 54-2 tensile strength 12,000 pounds maximum cable diameter of ½ inch.

### **C Construction**

The depth of the pole in the ground shall not be less than 5 feet or as directed by the engineer.

All poles shall be raked 1-foot and down guyed before any span wire or cables are attached as appropriate.

Individual down guys shall be installed in the opposite direction of the strain of the span wires.

Angle thimble-eyes and/or angle-eye bolt shall be used to attach the down guy to the pole.

### **D Measurement**

The department will measure Wood Poles, completed according to the contract accepted, as each complete unit of work.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.29	Wood Poles	EACH

Payment is full compensation for furnishing and installing a wood pole, insulators, down guy, for furnishing all excavation and backfill.

## **55. Traffic Signal Controller & Cabinet, Item SPV.0060.40.**

### **A Description**

This work shall consist of furnishing and installing traffic signal cabinets and controllers as shown on the plans and as hereinafter provided.

The contractor shall submit two copies to the engineer of the following: detection wiring diagrams, conductor layout standards and the associated head arrangements and other pertinent details.

Equipment will be examined and tests will be performed to ensure that proper and sufficient equipment is furnished as is required to complete the signal plan operation and sequence in compliance with the intent of the contract specifications.

All testing and equipment examination shall be in the presence of the contractor's representative furnishing the equipment. The contractor's representative will be notified of any needed modifications or corrections to be accomplished by the contractor.

The cabinet shall not be installed until it is in proper working order and approved by the engineer.

After the contractor has mounted the cabinet on the cabinet foundation, he shall connect all the field wiring inside the controller cabinet and test the signal circuits for correct operation. The contractor shall connect and test the signal circuits outside the controller cabinet as directed by the engineer. Connecting and testing signal circuits shall be considered part of this item of work.

The controller shall be a fully traffic actuated, solid state, digital microprocessor based controller with internal fiber optic modem multimode, capable of providing the number and sequence of phases, overlaps and any special logic as described herein and shown on the accompanying plan. The controller shall be an Eagle Signal Controls EPAC3808M52 with internal fiber optic modem. The controller shall be capable of communicating ECOM protocol.

The controller shall be fully programmed and shall be mounted in a control cabinet to operate as a complete and functioning intersection traffic signal control system.

The equipment items included shall be, but not necessarily limited to, cabinet, microprocessor based controller with internal fiber optic multimode modem, conflict monitor, power distribution panel, interior cabinet wiring and other associated electrical and electronic equipment interior to the control cabinet that is necessary to provide the type of operation described in these specifications.

A four ring, programmable for both single and dual entry concurrent timing, nine phase frame or equivalent shall be provided. Volume density timing shall be provided for eight phases and pedestrian timing shall be provided for all phases. MUTCD flashing capability shall be provided. All controls shall be according to the accompanying plans and with NEMA Standards Publication No. TS1-1976 including Revisions No. 1 and No. 2.

The intersection controller unit shall be capable of up to 16 phase operation plus 16 programmable overlaps regardless of whether preemption, coordination or special programming is used. The intersection cabinet shall be wired for a minimum of twelve and include eight 3 circuit load switches.

## **B Materials**

### **B.1 Electrical and Operational Aspects**

- Buffering. All logic circuit inputs shall be internally buffered to withstand transient and noise, such as might result from normal usage, without damage to any mechanism components.

- Timing Features. All controller timing parameters shall be fully programmable from the front panel using keyboard inputs. Memory storage features shall be nonvolatile under power off conditions for at least 30 days. The locking, non locking detection mode and per phase recall shall also be accessible on the front panel.
- Minimum Green Timing. The passage timer shall time concurrently with the minimum green timer, so that the duration of the minimum green time is directly adjustable and is independent of the passage time setting.
- Dual Ring Timing. In the dual ring application, no more than two phases shall be permitted to time concurrently and no more than one phase per ring. The controller shall provide barrier protection against concurrent timing of two conflicting phases; no phases assigned to one side of the barrier shall be permitted to time concurrently, if a conflict will occur. The controller shall service calls on a single entry basis, and both rings shall cross the barrier simultaneously according to the following logic:
- Phases timing concurrently shall terminate simultaneously if both have a gap out due to excessive time between actuations.
- Phases timing concurrently shall terminate simultaneously if both have a maximum time out.
- In the event that one phase has not achieved a gap out or maximum time out, the other gapped out phase shall be permitted to leave the gapped out condition and retime an extension when an actuation is received.
- Manual (Police) Control. If manual control is used, actuation of the manual control shall permit manual advance of the Walk, Pedestrian Clearance and Green interval terminations only. Manual termination of Yellow or All Red clearance intervals shall not be permitted.
- Red Revert. An adjustable red revert control shall be provided to assure adequate red display when recycling a phase during call-away or red operation. A call for service to different phase shall be preceded by an all-red clearance interval, as programmed.
- Coordination. The controller shall be capable of operation progressive coordination systems and mutual coordination and shall contain, but not be limited to, the following external inputs, with all functions brought out.
  - Vehicle/Pedestrian Detectors per phase
  - Phase Omit per phase
  - Omit Red Clearance per ring
  - Maximum II per ring
  - Stop Timing per ring
  - Select Minimum Recall per controller
  - Semi-Mode per controller



- Conflict Monitor Status
  - Pedestrian Omit per phase
  - Hold per phase
  - Internal Max Inhibit per ring
  - Red Rest per ring
  - Force-Off per ring
  - Manual Control per controller
  - External Start per controller
- Minimum Safe Timings Control. Controllers shall not accept any operator input or stored timing parameters that would result in intervals shorter than the following: yellow clearance - 3.0 seconds, minimum walk - 4.0 seconds, minimum pedestrian clearance - 6.0 seconds. At the beginning of each of the above intervals, the controller shall check the previously stored data against these minimums. If an operator attempts to load an incorrect timing parameter, the controller unit shall output a unique error code on the front panel display. As an alternative to minimum timing control, a coded keyboard entry security feature may be provided.
  - Indicator Lights and Switches. A backlit alphanumeric LCD display shall be provided to show the status of each signal phase on. The LCD display shall also be used to show the interval status, phase termination information and the presence of vehicular and pedestrian calls for each phase. The controller shall have fuses for AC power and +24 power.
  - Data Display. The front panel shall contain a display panel consisting of a backlit alphanumeric LCD display. The face of the display shall be scratch, chemical and solvent resistant. The operator shall access the controller through a menu system. By selecting various menu options, real time operational status or stored parameter tables shall be presented to the operator.
  - Diagnostic Program. A diagnostic program shall be prepared by the manufacturer of the controller unit which will demonstrate the proper operation of all inputs, outputs, controls and indicators in the controller, and shall have visual confirmation on the front panel. The diagnostic program shall be resident in the controller. The controller shall continuously run a diagnostic routine in the background to assure unit integrity.
  - Maintenance of Controller. For ease of service, the controller shall be divided into a minimum of the following separate circuit boards:
    - CPU/Memory/Internal I/O
    - External Input/Output
    - Display Subsystem
    - Power Supply

Each board must be easily removable without requirements for special tools.

The controller shall provide user programmable, data logging of local events or alarm events including, but not limited to: Conflict Flash, Remote Flash, Local Flash, Controller Voltage Monitor, Detector Failure, On Line and Data Change. The time and date shall be recorded as a part of the message logged. The logging function shall be resident in the controller unit. The logging function shall be viewed from the front panel LCD display. If the logging function cannot be viewed from the front panel LCD display and it has to be performed by supplemental auxiliary equipment, the auxiliary equipment shall be supplied.

- RS-232 Interface. An RS-232C interface and connector shall be provided for interconnecting to a conflict monitor, printer, another like controller unit, a local personal computer or a remote personal computer through an external modem.

The controller unit shall be an Eagle Signal Controls EPAC3808M52 with internal fiber optic modem. The controller shall be capable of communicating ECOM protocol.

- Controller Functions.
- Remote Flash. Controller shall have a user front panel programmable "Automatic Night Flash." The flash shall allow the user to program entry and exit phase(s) plus program the output of each load switch for off, flash, or alternate flh. This programming will be independent of start-up flash and or initial phase programming. This allows the operator complete programmability for automatic flash to be different from emergency flash.
- Dynamic Maximum. This allows the user to program values which the controller programmed time of day for automatic maximum time adjustments. This automatic controller adjustment will be based on concurrent "Max-Out" or "Gap-Out" terminations of phase green.
- Detector Inputs and Logging. The controller shall have the capability to process 80 separate detector inputs. Each of the 80 inputs can be capable of being user programmable for phase detector inputs, system detector inputs, and/or Queue detector inputs. The controller shall have capability to count in a report defined by the user up to 24 separate detector inputs. The report will log/record these 24 detector inputs for 72 events. Events start/stop and duration are all individually user programmable. This will allow the user total intersection counting capability without changing any field or cabinet wiring.
- Queue Selection. The controller shall have two separate Queue selection routines capable of selecting any/all or partial timing plan operation over riding any existing operation. The queue selection shall be based on computed volume and/or user selected occupancy routine with processing up to eight detectors in each selection. The user programs thresholds settings to enable/disable queue override.

## B.2 Monitoring

A NEMA monitor with all components and circuitry, independent from the controller and having the capacity to handle a minimum of 12 channels shall be provided. The monitor shall detect conflicting indications, switch failure, controller voltage drops and the absence of reds as follows:

- Conflicting indications shall cause the monitor to place the intersection in a flashing mode of operation. The monitor shall maintain the flashing mode until manually reset, regardless of 110 VAC power to the conflict monitor.
- The +24 VDC cabinet power source shall be monitored by the conflict monitor. If that voltage drops to an unsatisfactory level, the monitor shall place the intersection in a flashing mode of operation. Upon resumption of normal voltages, the controller shall resume normal stop and go operation without the necessity of manual resetting.
- The absence of any required red signal voltage at the field connection terminals in the controller assembly shall cause the monitor to place the intersection in a flashing mode of operation. The monitor shall maintain the flashing mode until manually reset.
- A load switch that turns on any two (2) indications for the same approach (such as green and yellow, yellow and red or red and green), shall place the intersection in the flashing mode of operation. The monitor shall maintain the flashing mode until manually reset, regardless of 110 VAC power to the controller.
- After a power interruption (exceeding  $457 \pm 25$  milliseconds) to the controller assembly, a flashing period (4 to 10 seconds adjustable) shall precede the start up (initialization) sequence. This feature can be resident in either the monitor or the controller.
- The flash circuit shall be wired in a failsafe manner so that the intersection will revert to and remain in a flashing mode of operation, whenever and for as long as, either the controller unit or monitor unit is disconnected.
- Indicator lights shall be provided for:
  - an indicator for each channel which will latch status of failure,
  - +24 VDC inputs,
  - conflict,
  - power (conflict monitor unit),
  - power interrupt after failure,
  - red failure,
  - switch.

- It will not be acceptable to disable any of the conflict monitor features because of signal sequences containing left or right turns with no red indication. Such sequences will require a loading resistor(s) to be mounted and wired to the unused triac output to simulate field load. The loading resistor shall be a DALE type RS 1000 ohm 25 watt resistor meeting MIL-R-370 or equal.

### **B.3 Terminal Facilities**

- Terminal facilities shall consist of all devices external to the controller unit which are necessary to complete the intersection. Terminal facilities supplied shall be protected by dual, common trip, 30 amp circuit breakers. The dual, common trip, 30 amp circuit breakers shall feed an evenly split signal bus through radio interference line filters and bus relays. Bus relays, in all cases, shall be mercury type contactors and shall not be jack mounted. Terminal facilities shall also include applicable load switch panels of sufficient capacity to accommodate 8 vehicle phases and 4 pedestrian phases or 4 overlap phases and shall include a minimum of 12 solid state 3 circuit load switches with visual indicators. Flash transfer relays as required and two double circuit NEMA flashers shall also be provided. The internal wiring of the load switch panels shall be insulated wiring of sufficient size or the individual outputs fused so that the wiring will not be damaged by shorted output light circuits. Printed circuits in the load switch panels will not be acceptable.
- Terminal strips shall be used to terminate controller cables, signal head cables and vehicle and/or pedestrian detector cables. All controller inputs and outputs shall be terminated on an interface panel. All interface and output terminal connections shall be the screw down type.
- AC interconnect terminal facilities shall be fused to incoming lines.

### **B.4 Cabinet Switches**

- The following switches shall be located inside the cabinet on the maintenance panel:
  - Controller Power On/Off
  - Cabinet Light On/Off
  - Stop time (3 position)

<u>POSITION</u>	<u>LABEL</u>	<u>FUNCTION</u>
Upper	Stop Time	Place stop time on the controller
Center	Run	Remove stop time input to the controller
Lower	Normal	Connects the monitor to the controller stop time input

Switches shall be provided for all vehicle phases and all even pedestrian phases.

- The following switches shall be located behind the police door:
  - Signal/Off
  - Flash/Normal

The above switches (aandb) shall function as follows:

	<u>SIGNAL</u>	<u>OFF</u>
FLASH	Signals Flash	Signals Dark
NORMAL	Signals Normal	Signals Dark

- Manual Detector Operation. Three position switches shall be provided external to the controller which will permit manual detector calls and manual detector disconnect for each phase independently. The switches shall be spring loaded and shall rest in the center (non-operative) position. The switches shall be appropriately labeled and shall operate as follows:

Upper Position: Spring loaded, disconnect detector

Center Position: Normal detector operation

Lower Position: Spring loaded, test call is placed to the controller

### **B.5 Cabinet and Cabinet Equipment**

- The controller shall be furnished completely housed in a door-in-door ground mounted (without anchor bolts) metal cabinet size 44-inches wide, 27-inches deep and 51 inches high.

The cabinet shall be of clean cut design and appearance. The size of the cabinet shall be such as to provide ample space for housing the controller and all of the associated electrical devices which are to be furnished with the controller, together with any other auxiliary devices herein specified.

- All cabinets shall have the following:
  - A 15 amp circuit breaker for auxiliary equipment.
  - A pedestrian push button optoisolator assembly providing four channels of isolation. Relays shall not be acceptable.
  - A valve type surge protector, as manufactured by Joslyn, catalog No. L9200-10; General Electric, catalog no. 9L 15DCB002; or approved equal, shall be mounted internally within the traffic signal cabinet and shall be connected across the line terminals of the circuit breakers. A General Electric arrestor, catalog no. V150LA20A, shall be installed at the load terminals of each circuit breaker from the hot line to the ground conductor.
  - Incandescent lamp socket with 100 watt lamp.
  - Solid state NEMA flasher(s) with visual indicators and completely wired and base rated for at least 10 amps per circuit at 165-degrees.
  - Control switches, including controller power switch, stop time switch and cabinet light switch.
  - All switches specified in Cabinet Switches and Cabinet and Cabinet Equipment sections.
  - All necessary fuses and circuit breakers.

- All wiring harnesses including detector harnesses. Loop detector harness connector shall be MS3106B018-1S, fully wired, terminals J shall go to separate isolated terminals. Loop harnesses shall be provided as per the plans.
  - Duplex power receptacle. A 120 VAC 20 amp, NEMA 5-20R GFI convenience outlet shall be mounted in each cabinet for energizing equipment or tools. The outlet shall be fuse protected.
  - Radio interference filter. Each control cabinet shall be equipped with a single radio interference suppressor of sufficient ampere rating to handle the load requirements. The RIS shall be installed at the input power point. It shall minimize interference in both the broadcast the aircraft frequencies, and shall provide a maximum attenuation of 5008 over a frequency range of from 200KHz to 75MHz, when used in connection with normal installations. The RIS shall be hermetically sealed in a substantial metal case which shall be filled with a suitable insulating compound. The terminals shall be nickel plated brass studs of sufficient external length to provide space to connect two no. 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 1/4 inch between any exposed current conductor and any other metallic parts. The terminals shall have an insulation factor of 1 00-200 megohms dependent upon external conditions. The RIS shall not be rated less than 35 amperes. The RIS shall be designed for operation on 115 VAC $\pm$ 10%, 60Hz, single phase circuits, and shall meet the standards of UL and Radio Manufacturer's Association.
  - Cabinet grounding. In all controller cabinets and auxiliary cabinets, the AC common, the logic ground and the chassis ground shall be isolated from each other the same as detailed by NEMA Standard.
  - Suppressors. Each 120 VAC circuit that serves an inductive device, such as a fan motor or a mechanical relay, shall have a suppressor to protect the controller's internal solid state devices from excessive voltage surges. Such suppressors shall be in addition to the surge protector at the input power point.
  - Provide a photocell for street lights at signalized intersections.
  - Provide all necessary hardware to accommodate fiber optic interconnect and Ethernet communications.
- All conductors in the cabinet shall be number 22 AWG or larger, with a minimum of 19 strands and conforming to military specifications, Mil-W-16878D, type B or D vinyl nylon jacket, 600 volt, 105 degree C. All cabinets shall be factory wired.
  - The cabinet shall provide weather protection and forced ventilation, air filters and heaters with adjustable thermostat switches to comply with the environmental and operating standards outlined in NEMA Specification TSI-1-1976. The heater supplied shall have an adjustable thermostat setting which varies from 0 degree to 40 degree. The cabinet shall provide reasonable vandalism protection. Access doors shall be provided with latches and a corbin lock, dust cap and key change IR6380. The small door shall be provided with standard police locks.

- Forced Ventilation. Controller cabinet containing solid state equipment shall be ventilated by means of a 120 VAC, 60 Hz, tube axial compact type fan. The fan's free air delivery flow shall be greater than 100 CFM. The magnetic field of the fan motor shall not affect the performance of the control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp or have bearing failure within a 7 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 degrees Fahrenheit. The fan shall run until the cabinet's temperature decreases to approximately 30 degrees below the turn on temperature setting. The fan shall be fused.
- Metal shelves shall be provided to support the controller and external equipment. The controller shall be on the top shelf and not less than 38-inches above the bottom of the cabinet. There shall be a minimum of 10-inch vertical height for detector units.
- Bus and flash transfer relays, flashers, load switches, circuit breakers and interference filters shall be located on a standard panel consistent with the intersection plan. Design shall facilitate field inspection and maintenance accessibility without excessive disassembly or special tools.
- All cabinet inside and outside surfaces shall be primed with phosphate treatment and primer. After priming, all exterior surfaces shall receive a minimum 2 coats of rust resistant black enamel and interior surfaces shall be furnished with rust resistant high gloss white enamel.
- Any cables, wires or circuits which are not being used shall be neatly folded and shall be capped. These wires shall be neatly tied and stowed away in or on the terminal facilities.
- Terminal facilities arrangement shall be in a fashion so that trouble shooting of load bay or behind the load bay can be accomplished with simple tools. This means that the load bay will be hinged so that it can be dropped down for ease of maintenance. There will be sufficient slack in the load bay wiring to allow for dropping the load bay.
- All control cables (i.e. detector harnesses, controller harnesses and harnesses which connect manual/vehicle detector switches) shall be protected by a nylon jacket or equivalent protection to prevent any contact with cabinet metal shelves, doors and any other sharp corners.
- If any branch circuit wiring or control wiring does not conform to the wire specifications, the supplier will be considered as not meeting the specifications and proper corrective action will be exercised against the supplier.

### **B.6 Solid State Load Switches**

Load switches shall meet the requirements of NEMA-TS1 Part 5 for three circuit load switches.

Each load switch shall contain optical isolation between the control and the load circuits. The module shall have the functions and terminal assignments as specified in NEMA TS1-Part 5.

Each panel of load switches shall be either rack mounted or shall have a switch support bracket extending across the entire length of the switch panel.

The load bay arrangement from left to right shall be as described below:

- Vehicular shall be grouped -phase 1 through phase 8, inclusive.
- Pedestrian phasing shall follow next- phase 2, phase 4, phase 6 and phase 8

### **B.7 Equipment List and Drawings**

Detailed shop drawings of the control cabinet, equipment layout drawings and wiring diagrams of all equipment installed in the cabinet shall be submitted to the engineer for approval. Two sets of cabinet wiring diagrams shall be contained in a heavy duty clear plastic envelope mounted on the inside of the front door.

### **B.8 Manufacturer Warranty**

- Each bidder shall certify that the equipment meets the required specification and shall provide a complete catalog description.
- A warranty statement which stipulates that equipment to be supplied shall be warranted for two years from the date of purchase.
- Operation manuals.
- Maintenance manuals.
- Schematic diagrams.
- Component and equipment locations within the cabinet.
- If a malfunction in the controller unit, or its auxiliary equipment occurs during the warranty period, the supplier shall, within 48 hours after notification (excluding Saturday and Sunday), furnish a like controller unit module, or auxiliary equipment, for use while the warranted unit is being repaired. The isolation of any malfunction during the warranty period shall be the responsibility of the supplier. After the supplier has repaired and returned the equipment, the city shall then return the spare component to the supplier.



## B.9 Preemption

- General. These specifications detail a preemptor program for use with 2 through 16 phase actuated controller.

The preemptor shall be capable of being adaptable to meet the various types of applications such as railroad, fire station, emergency vehicle and bridge preempts, simultaneously.

The preemptor shall be internal to the controller and shall not alter the controller capability or interchangeability under normal operation. The preemptor shall be completely programmable by the user in the field and have six separate sequences with each having high and low priority inputs capable of the following:

- Preempt Program.
- Preempt Registration. The preempt call input shall initialize preempt registration and start preempt sequence unless a priority call input is activated which would treat the current controller preemptions as normal operation and reinitiate call registration.
- Preempt Delay. As soon as the preempt call is registered the preempt delay will begin timing unless preempt delay is set to zero or preempt delay omit was active during preempt call registration. Delay shall be programmable from 0 to 255 seconds minimum.
- As soon as preempt delay is timed out, current running phases not next to be common in the preempt sequence are cleared. If the running phases are green and must be cleared, special programmable values of minimum green, walk and pedestrian clearance intervals will time normal times. Concurrently a special preempt clearance is generated. This clearance is designed for advance track signals and any overlaps that make be green and require yellow clearance.
- Entry Clearance Phase(s) Select. Two sequential phases or phase pairs shall be available to be run as programmable fixed time intervals as an entry sequence. Two entry options shall be available, each programmable. The entry sequence shall be capable of being omitted entirely.
- Dwell Sequence. After the entry sequence, the preemptor shall enter the dwell sequence. During the dwell sequence the controller shall cycle between selected phases on a pre-timed or actuated basis. Pedestrian phasing may be normal or omitted entirely. When the dwell sequence is entered, a preempt dwell output shall be generated. The preemptor shall remain in dwell for the length of the dwell extension timer which shall be capable of being held in reset by the preempt call input. Dwell extension shall be omitable by setting the timer to zero.
- Exit Sequence. After leaving dwell, the controller shall enter one or two programmed exit phase(s) or phase pairs sequences. The sequence will time programmed minimum green and place a vehicle call on all phases not omitted. After timing exit phase minimum green the controller shall time and sequence normally.

- Preempt Sequences. The preemptor shall provide a minimum of six different programmable preemption sequences. These preemption sequences shall be associated with separate preempt call inputs or the sequences may be linked to each other to create more sophisticated sequences.

#### **B.10 Time Based Coordination.**

These specifications detail a time base coordinator program for use with 2 through 16 phase actuated controller.

The units shall allow traffic control equipment to be coordinated without requiring the use of interconnection cables. The units shall coordinate traffic control equipment based on signals from a precise time base which will allow output control signals to be changed at the proper preprogrammed time to achieve the coordinated operation of an intersection with other intersections or the desired operation of an isolated intersection. The time base coordinator may also be used as a programmer for a master intersection controller which in turn is interconnected with secondary intersection controllers. The units shall also be capable of providing a command for MUTCD flash, and shall allow a full year program to be initiated and carried out without the necessity of field adjustment for anticipated special events, etc.

The coordinator shall be capable of enabling/disabling dynamic Max, automatic flash and detector logging.

The time base coordinator shall be internal to the controller and shall not alter controller capability or interchangeability under normal operation. The time base coordinator shall be completely programmable by the user.

#### **B.11 Controller Operation.**

Consistent with customary trade practices, the manufacturer shall furnish a warranty for all electrical or mechanical equipment described herein. The contractor shall turn such warranty over to the owner for potential dealing with the guarantor.

If the contractor is the guarantor, he specifically waives the requirements of Section 289.14(2), Wisconsin Statutes, and agrees as a condition of the contract that the owner may maintain an action against him at any time during the warranty period for recovery of damages which the city may have sustained by reason of the failure the contractor to comply with the provisions of the warranty provided to the owner.

During the installation and testing of the controller, the contractor shall provide, at his own expense, a competent representative to oversee, direct and manage the installation and testing of the controller. In the final stages of installation and testing, the manufacturer's representative shall be available at the job site for consultation until such time as the controller operation is tested and accepted.

### **C Construction**

Furnish and install traffic signal controller and cabinet.

### **D Measurement**

The department will measure Traffic Signal Controller & Cabinet bid item as each traffic signal controller, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.40	Traffic Signal Controller & Cabinet	EACH

Payment is full compensation for furnishing and installing the signal controller and conflict monitor together with cabinet; furnishing and installing switches for flashing operation; furnishing and installing fittings as are necessary to assure that the controller will perform said functions.

## **56. Pedestrian Push Buttons, Item SPV.0060.41.**

### **A Description**

This work shall consist of furnishing and installing pedestrian push button assemblies, including push button, frame, and face plate.) at the locations shown on the plans, according to the detail in the plans, and all according to the requirements of the plans, specifications, and contract. The work shall be performed according to standard spec 658, except as specified hereinafter.

### **B Materials**

The pedestrian push button assembly shall provide a two tone audible with a visual LED confirmation of actuation along with the bulldog type push button and integral pedestrian sign meeting all requirements of the Americans with Disabilities Act. The sign legend shall be the Walking Person with a directional arrow meeting all guidelines set forth by the MUTCD. Both the Walking Person and the arrow shall be oriented in the direction shown on the plans.

The push button housing and sign shall be cast as one piece, free of voids, pits, dents, molding sand and excessive foundry grinding marks. All design radii shall be smooth and intact. Exterior surface finish shall be smooth and cosmetically acceptable, free of molding fins, cracks, and other exterior blemishes.

The back portion of the housing shall be designed to fit snugly to the signal poles or standard, and shall be designed to accommodate installation by either banding or screws.

The push button housing and sign shall have an anodine conversion coating to prevent oxidation. The assembly body shall be clear powder coated to provide a natural aluminum color.

**PUSH BUTTON**

TAPCO PART # 2505-2 (BLACK)

**PUSH BUTTON FRAME**

TAPCO PART #2505-57B (BLACK)

**FACE PLATES**

TAPCO PART #2505-10

**C Construction**

Pedestrian Push Button Assemblies shall be installed as shown in the plans and as specified in standard spec 658.3.5. The seam between the housing and the pole or standard shall be sealed at the top and sides with a smooth bead of clear 100% silicone caulk to provide a weatherproof seal. The bottom seam shall remain open to allow moisture to escape.

**D Measurement**

The department will measure Pedestrian Push Buttons as each individual unit, complete and accepted in place.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.41	Pedestrian Push Buttons	EACH

Payment is full compensation for furnishing and installing the Pedestrian Push Button; for making all connections; and for furnishing and installing all connectors.

**57. Microwave Detection Sensor, Item SPV.0060.42.**

**A Description**

Work under this item shall consist of furnishing and installing a microwave based sensor that shall detect trucks, vehicles, motor cycles and bicycles and send a signal representative of a loop type detector in a presence mode to a traffic controller device.

**B Materials**

The microwave based sensor that shall detect trucks, vehicles, motor cycles and bicycles and send a signal representative of a loop type detector in a presence mode to a traffic controller device. The sensor shall be installed and programmed with minimum effort. The sensor shall operate in the field under harsh environments and shall be immune to the effects of weather (rain, snow, fog), sun rays, night problems and head light glare. It shall not be necessary to mount any hardware in the roadway, or above the roadway. The sensor shall be immune to all privacy issues.

**B.1 Environmental/ Power Requirements**

The sensor shall function in the field without any degradation of operation with the following temperature ranges: -40° C to +85° C.

The sensor plus interface board shall operate with 24DVC supplied to the TCIB interface card and require no other power supplies. Total current shall be no more than 415mA at anytime during operation with no output active.

Operation shall be within 20 seconds from a cold start up. Full operation shall be no greater than 2 minutes, and provide for full automatic recovery from a power failure.

The sensor unit shall be FCC approved.

## **B.2 Physical Description**

The sensor shall weigh no more than 5.5 pounds, and be no more than 11 inches long, 8.5 inches wide and 7 inches high.

## **B.3 Operation**

The sensor shall be a microwave-based motion and presence sensor used for intersection control. The sensor shall interface with a traffic signal control cabinet, and shall output signals when vehicles are represent in user defined zones. These zones shall be able to be created by using an X-Y coordinate system, and have the operation verified and optimized using a laptop with Internet Explorer TM 6.0 or greater as part of the installation process or resident on the PC.

The sensor shall allow the user to create up to eight zones and assign vehicle presence in each of these zones and up to four outputs to the control cabinet. Detection zones shall be able to be created to a maximum distance of 300 feet from the sensor location.

The sensor shall track the presence of a vehicle in a detection zone for a predetermined time, user selectable from 0 to 960 seconds.

The sensor shall be able to track multiple moving and stationary vehicles simultaneously.

Each vehicle shall be tracked using its X-Y coordinates to determine the vehicles location.

The sensor shall update the X-Y coordinates 20 times per second.

The range of operation shall be from 50 feet to 400 feet from the front of the sensor.

The sensor shall be able to program eight independent zones, and provide up to four independent optical isolated outputs to the controller cabinet inputs via one of three optional sensor interface boards.

The sensor shall be able to determine and display the speed of each vehicle in the detection zones.

The sensor shall be able to provide grid tracking for the live interactive zones.

The sensor shall be able to provide a histogram to verify setup of the zones.

The sensor interface shall use either English (standard) or metric units at the option of the user.

The sensor shall be able to provide user defined delay and/or extension times for each zone.

The sensor Explorer interface shall be able to provide a graphical representation of the vehicle track as they approach the intersection.

The sensor shall provide a diagnostic and demonstration mode for various operations.

The sensor shall operate via an Ethernet interface with power supplied over the Ethernet connector (POE).

#### **B.4 Radar**

The sensor shall support five (5) selectable channels of microwave operation and operate in the FSK-4 mode. 24.075 GHz, 24.100 GHz, 24.125 GHz, 24.150 GHz, 25.175 GHz.

The beam angle shall be an Azimuth of 25 degrees to 100 feet, and then 20 degrees out to 400 feet. The elevation shall be 12 degrees.

#### **B.5 Interface Boards**

Interface boards shall be provided for the sensor and shall be compatible with NEMA TS-1 and TS-2, 170, 179 and 2070 cabinets. For each sensor one interface board shall be required per specifications.

The Interface board shall communicate with the controller cabinet. The interface boards shall meet with the requirements of CALTRANS 170/2070 222 and 224 modules with respect to size and form.

There shall be three optional interface boards available with the following functions:

There shall be four output Interface Boards that fits in a single input file slot.

The interface boards shall operate at 24DVC and provide the power supply for the sensor over the Ethernet cable.

The Interface boards shall have up to four (4) LED's to indicate the activity of each zone. (Only 2 LEDs are active on the 2 channel board).

Each output shall be optically isolated with a LED and status indicator.

There shall be an indication for a fault mode (no Ethernet connection) such that all LEDs and Opto-isolator are on. This action shall place calls on the traffic controller.

There shall be an RS-232 port for diagnostics on each Interface boards.

The Interface boards shall provide power and short circuit protection for the sensor.

The Interface board shall automatically recover from a power failure and start up within 20 seconds of a cold start.

The Interface board shall be hot swappable and shall be able to be plugged in and out of the input file slot without adversely effecting its operation. (Unplugging of the Interface board shall take power off the Interface board and off the sensor).

### **C Construction**

The sensor shall be mounted on the side of a pole at a height from 14 to 19 feet for optimal performance.

When mounted on the side of the pole a maximum 30 degree offset from the traffic direction shall be allowed to provide for optimal operation.

Mounting hardware shall be supplied with each sensor to allow the device to be attached to a pole with black strapping bands.

### **D Measurement**

The department will measure Microwave Detection Sensor bid item as each sensor unit, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.42	Microwave Detection Sensor	EACH

Payment is full compensation for furnishing and installing the Microwave Detection Sensor, interface boards and cable; for making all connections; for furnishing and installing all connectors and hardware; and for the programming and testing of the Microwave Detection Sensor.

## **58. Pre-Terminated Patch Panel with 6-Ports, Item SPV.0060.43.**

### **A Description**

Work under this item shall consist of furnishing and installing a factory terminated patch panel that is compact, durable and secure, as shown on the plans and as hereinafter provided.

### **B Materials**

The factory terminated patch panel shall meet or exceed the following specifications:

#### **B.1 General**

Number of ports: 6 – ST Single Mode as shown on the plans. The patch panel shall be mounted to the sidewall of the cabinet. The Pre-terminated Patch Panel, in conjunction with

the included drop cable, serves as the attachment point from the controller cabinet to the main cable.

## **B.2 Physical**

The Pre-terminated Patch Panel shall be comprised of the following:

- Factory terminated 6 count ST – of Single Mode drop cable integrated into a protective housing.
- 200-feet. of 6 count SM drop cable. Contractor to determine custom length per field measurements at each Signalized Intersection.
- The Patch Panel shall be black in color and built of Polycarbonate Material.
- Nominal dimensions of the patch panel shall be from 7.3” to 13.05” long, 1.74” wide and 1.705” deep from coupler tip to the base of the unit.
- The Patch Panel shall have 6 ports arrayed at a 45-degree angle along the length of the housing.
- The couplers shall be configured in a stair-stepped arrangement to facilitate easy access to each coupler pair.
- The fiber optic connectors on the inside of the housing shall be constructed with all ceramic ferrules.
- The fiber shall be secured into the ferrule using a heat cured epoxy and shall be factory terminated and polished.
- 100% of the fiber terminations shall be optically and visually tested for attenuation and reflectance, and shall exhibit an optical performance with a maximum insertion loss of 0.40dB at 1310nm and 0.3db at 1550nm and a minimum return loss of 40dB.
- The inside of the housing shall be filled with an environmentally and temperature stable epoxy to permanently secure the connectors and the cable on the inside of the housing and to protect the fiber optic components from vibration and shock.
- The Epoxy shall be thermally stable from -40 to + 130 degrees Celsius. The housing shall incorporate a 2.5 inch strain relief boot around the exiting drop cable to provide bend radius protection and a short-term cable retention of at least 200 lbft.
- The housing shall have integrated mounting notches for field mounting in the traffic control cabinet.

## **C Construction**

The contractor shall meet with the City of Racine to discuss specific locations of the drop splices prior to installation.

Install the Pre-terminated Patch Panel on the side wall of the cabinet.

The Pre-terminated Patch Panel shall have adequate length to be connected to the Splice Enclosure. Splice enclosure is a separate Pay Item.

Contractor to install Drop Cable continuous from the cabinet to the Splice Enclosure with 30-feet of slack at the drop splice location.

Splicing to the trunk cable is paid for under a separate pay item.



**D Measurement**

The department will measure Pre-terminated Patch Panel with 6-Ports as each Pre-terminated Patch Panel with 6-Ports, 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.0060.43	Pre-terminated Patch Panel with 6-Ports	EACH

Payment is full compensation for furnishing and installing the Pre-terminated Patch Panel with 6-Ports.

**59. IP Ethernet Switch with Single Mode Fiber Ports, Item SPV.0060.44.****A Description**

Work under this item shall consist of furnishing and installing an IP Ethernet switch with single mode fiber optic ports, as shown on the plans and as hereinafter provided.

**B Materials**

The IP Ethernet switch with single mode fiber optic ports shall meet or exceed the following specifications:

**B.1 General**

- Number of ports: 8 (6 Copper, 2 Fiber Optic).
- Shelf Mount.

**B.2 Physical/Electrical**

- Height: 18.8cm / 7.4”.
- Width: 6.6cm / 2.6”.
- Depth: 12.7cm / 5.0”.
- Weight: 1.22kg / 2.7 lbs.
- Ingress Protection: IP40 (1mm objects).
- Enclosure: 20 AWG galvanized steel enclosure Maximum Weight: 2 lbs.
- HI Voltage AC/DC: 88-300VDC, 85-264VAC, 0.1A

**B.3 Environmental**

- Operating Temperature: -40 C to +85 C.
- Storage Temperature: -40 C to +85 C.
- Relative Humidity: Up to 95%, non-condensing.

**B.4 Data Communication (Ethernet Interface)**

- Ethernet Ports: 6 – Base 10/100 Base TX ports Ethernet Interface.
- Ethernet Interface shall use an RJ45 female connector.

- Ethernet Ports: 2 – Base 10/100 FX Industry standard fiber optical connectors: ST Single Mode 1310nm.
- T2T2= 2 x 100FX – Single Mode 1310nm, ST connector, Standard 20km distance, Data Rate: 10 or 100 Mbps.
- 802.3u-100 Base TX, 100 Base FX.
- Network Protocols Supported:
  - TCP/IP.
  - UDP/IP.
  - VLAN tagging.
  - IGMP V2.
  - Spanning Tree Protocol (STP).
- Remote configuration via Telnet, HTTP, TFTP and SNMP.
- Management Tools.
- Web-based, Telnet, CLI management interfaces.
- SNMP v1/v2/v3 (56-bit encryption).
- Remote Monitoring (RMON).
- Rich set of diagnostics with logging and alarms.
- Compatible with Rugged Explorer Management software.

### **C Construction**

The contractor shall meet with the City of Racine to discuss specific requirements of the IP Ethernet Switches prior to installation.

Configure/Program IP address (and subnet) as directed by the City of Racine.

Make the necessary physical connections to the Ethernet Switch and fiber ports to the traffic signal cabinet.

Verify that the IP Ethernet Switch operates as expected in the traffic signal system with the City of Racine's ACTRA central software.

### **D Measurement**

The department will measure IP Ethernet Switch with Single Mode Fiber Ports as each individual unit, complete and accepted in place.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.44	IP Ethernet Switch with Single Mode Fiber Ports	EACH

Payment is full compensation for furnishing and installing the Ethernet Switch; for making all connections; and for furnishing and installing all connectors.

## **60. IP Video Encoder Single Port, Item SPV.0060.45.**

### **A Description**

Work under this item shall consist of furnishing and installing an environmentally hardened IP Video encoder, including any necessary power supply rated for the same environmental conditions as the device. The Video encoder shall be easily installed and shall be easy to set up as shown on the plans and as hereinafter provided.

The Video encoder will allow the video detection camera to be seen over the Ethernet network at City Hall.

### **B Materials**

Furnish Video Encoders that meet or exceed the following requirements:

#### **B.1 Environmental and Electrical**

- Operational temperature range of -20° F to +165° F for sustained system operation.
- 0-80% Humidity, Non-Condensing.
- Encoder will operate on 120VAC @ 60Hz either directly or with an included external power supply.
- Power not to exceed 10W for 1 and 4 channel.

#### **B.2 Video**

- Encode in both MJPEG and Mpeg 4 Simple Profile (SP).
- Shall accept 1 NTSC video input(s) (1 volt p-p).
- BNC female video input.
- Resolution for each stream shall be user selectable as QCIF, CIF, 2CIF, or D1.
- Data rate 56kbps to 6Mbps minimum.
- NTSC frame rate of 1 to 30fps.
- Capture and transfer Jpeg images.

#### **B.3 Network/Data**

- Minimum of one RJ-45 10/100Base-Tx Ethernet port.
- Two full-duplex serial communications ports selectable as RS-232, RS-422, or RS-485.
- User configurable IP addresses for each video and data channel. Must support UDP, SNMP, HTTP, Telnet, FTP.

#### **B.4 Functional Capabilities**

The interface device shall provide capabilities to enable multiple video detection processors to be locally and remotely accessed from a single point via one set of user interface devices. User interface devices are defined as a pointing device (mouse or track-ball) and video monitor.

Up to four video detection processor chains (video detection processor and extension modules) shall be accommodated.

The device shall allow the operator to switch video output display for any of the attached rack-mounted video detection processors by pressing a momentary switch or by using the remote access software.

Local user access to video detection programming shall be limited to the detection processor unit that is currently being displayed on the monitor.

All local programming and setup parameters for the video detection processor shall be user accessible through the interface unit without requiring the user to swap user interface cables between video detection processors.

Remote access to the device shall be through the built-in Ethernet port or EIA-232 port via access software running on a Microsoft Windows based personal computer.

An internet browser-based remote access firmware shall also be available for remote setup and diagnostics of the interface unit.

The interface unit shall support streaming video technology using MPEG4 and H.264 standards to allow the user to monitor video detection imagery over the Ethernet interface.

The user shall be able to select which video input to be displayed on the output video monitor by repeatedly depressing the menu button.

The user shall be able to select a quad view of all of the four cameras simultaneously on the output video monitor by depressing the menu button.

The interface unit shall allow four independent streams, one from each video detection processor, to be transported via Ethernet to four independent streaming video players simultaneously in CIF resolution.

The interface unit shall also have a browser interface that allows the user to configure the module.

The browser interface shall also allow the user to view the streaming video on the browser interface.

The browser interface shall allow the user to select the resolution of the displayed streamed video.

The interface unit shall support the streaming and display of D1, CIF, QCIF, VGA and QVGA video resolutions in a single stream or four concurrent streams in CIF resolution.

The interface unit shall allow the user to select a quad-view of all four input video signals to be shown on the browser interface.

The interface unit shall allow the user to manage the unit's Ethernet bandwidth usage by allowing the user to select the maximum bandwidth limit between 256 kbps and 7.0 Mbps.

The browser interface shall allow the user to change the unit's Ethernet network settings of IP address, subnet mask and default gateway.

The interface unit shall allow the user to upload new application firmware through the use of the browser interface.

Access to the interface unit shall be under password control and the browser interface shall allow the user to change the password.

The interface unit shall have the capability to perform IP port redirecting between the remote management software and each attached video detection processor. A unique IP port number shall be assigned for each video detection interface. The port number shall not be identical to the web browser interface of 80.

#### **D Measurement**

The department will measure IP Video Encoder Single Port as each individual unit, complete and accepted in place.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.45	IP Video Encoder Single Port	EACH

Payment is full compensation for furnishing and installing the IP Video Encoder Single Port; for making all connections; and for furnishing and installing all connectors.

### **61. Signal Pole Decorative Arms and LED Luminaires, Item SPV.0060.46.**

#### **A Description**

This special provision describes furnishing and installing decorative luminaires and mast arms on traffic signal poles as specified herein and per the drawings.

#### **B Materials**

##### **B.1 Luminaires**

Luminaire shall be the teardrop style as detailed in Plan. Nominal overall dimensions shall be 17" W x 34" H. Luminaire shall be provided in 83 watt LED configuration and operate at specified voltage.

The refractor shall be thermal resistant molded borosilicate prismatic glass cradled in a hinged cast aluminum door frame with single latch and shall have a maximum depth of 14".

The teardrop shaped refractor shall be combined with an internal COB LED's encased in a robust glass lens. The two lenses shall comprise the optical system which shall provide IES Type III Asymmetric distribution.

LED's are to be Chip-On-Board design, 5000K CCT. L70 lumen maintenance factor shall exceed 100,000hrs.

Nominal 83 watt unit shall utilize nominal 10,236 initial lumen LED output, 120-277V input voltage. BUG rating of B2-U3-G3.

Plastic or non-prismatic teardrop luminaires shall be deemed unacceptable. The complete assembly shall be rated IP65 and UL\CSA Listed for Wet Locations at 40 degree C.

A unitized electrical module equipped with the LED drivers and surge protection shall be accessible via a separate chamber and be capable of being removed without entering or disturbing the optical chamber. Surge Protection shall meet ANSI 136.2 specified 10kV\5kA rating and be UL1449 listed.

An additional separate wiring chamber shall be provided complete with a three station terminal block and plug assembly connection to the removable electrical module. The wiring chamber casting shall have an integral Quick Lock Stem casting designed to provide watertight and mechanical attachment to the horizontal arm slipfitter.

All cast housings and hinged doorframe components shall be copper free aluminum, pretreated with a 7-stage process and finished with state of the art electrostatically applied semi-gloss black polyester powder paint. All other hardware shall be stainless steel.

All electrical components shall have a nationally published 5-year manufacturer's warranty.

## **B.2 Mast Arms**

Mast arms shall be all aluminum, one-piece construction as detailed in plan set. It shall consist of a cast decorative post-mounting piece and a bent tube arm. All welding shall be per ANSI/AWS D1.2-90 and all welders shall be certified per ANSI/AWS D1.-90 Section S.

The cast pieces shall be heavy wall, copper free and produced from ASTM 356.1 ingot per ASTM B179-95a or ASTM B26-95. The bent tube shall be aluminum, ASTM 6061 alloy, heat-treated to a T6 temper. All hardware shall be stainless steel.

The arm shall slip-fit a post top tenon 3" OD x 9" tall. Nominal arm length shall be 72" per arm

Entire assembly shall be pretreated with a 7-stage process and finished with state of the art electrostatically applied black semi-gloss polyester powder paint.

### **B.3 Slipfitter**

The slipfitter shall mate the pendant mount luminaire to horizontal luminaire arm, and be constructed of heavy wall cast aluminum with swivel threaded male connector providing  $\pm 4$  degree adjustment. The slipfitter shall provide for leveling the assembly by means of two captive hidden U-Bolts and leveling nuts. Provide  $\pm 5$  degree adjustment. A removable top cover with finial shall provide access for wiring. All mounting and locking hardware shall be stainless steel.

All cast aluminum components shall be alloy #356 copper free aluminum, pretreated with a 7-stage process and finished with state of the art electrostatically applied semi-gloss black polyester powder paint.

### **B.4 Pole Wiring**

Conductors from the underground cable network to the luminaire shall be #12 AWG Type XHHW-2 (XLP) individual conductors. In each utilized phase conductor in the handhole, there shall be installed a 1-pole secondary inline 600 VAC fuse assembly with #12AWG copper crimp connections at each end, and a fast acting, current limiting type CC fuse.

### **C Construction**

The luminaire shall be installed on a mast arm on the traffic signal pole per the manufacturer's instructions. The contractor shall install unit with proper luminaire orientation and as indicated on the plans.

In-line fuseholder ends shall be insulated with electrical tape.

Pole conductors shall have sufficient length to permit removal of the fuse assembly through the handhole of the pole.

### **D Measurement**

The department will measure Signal Pole Decorative Arms and LED Luminaires as each individual unit, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.46	Signal Pole Decorative Arms and LED Luminaires	EACH

Payment is full compensation for furnishing and installing all materials, including luminaries, mast arms, post top tenon, pole wiring and all necessary hardware and fittings.

- 62. Pedestal Bases Black, Item SPV.0060.47; Transformer Bases Breakaway 11 1/2-Inch Bolt Circle Black, Item SPV.0060.48; Poles Type 2 Black, Item SPV.0060.49; Poles Type 3 Black, Item SPV.0060.50; Traffic Signal Standards Aluminum 13-FT Black, Item SPV.0060.51; Traffic Signal Standards Aluminum 15-FT Black, Item SPV.0060.52; Traffic Signal**

**Standards Aluminum 10-FT Black, Item SPV.0060.53; Trombone Arms 15-FT Black, Item SPV.0060.54; Trombone Arms 20-FT Black, Item SPV.0060.55; Trombone Arms 25-FT Black, Item SPV.0060.56.**

**A Description**

This special provision describes furnishing and installing Pedestal Bases Black, Transformer Bases Black, Poles (type) Black, Traffic Signal Standards Aluminum (height) Black and Trombone Arms (length) Black at the locations shown in the plan, according to the pertinent provisions of standard spec 657 and as hereinafter provided. All items to have a Black Powder Coat Finish.

**B Materials**

Furnish Pedestal Bases, Transformer Bases, Poles, Traffic Signal Standards and Trombone Arms according to standard spec 657.2 except as noted here.

Furnish all Pedestal Bases, Transformer Bases, Poles, Traffic Signal Standards and Trombone Arms with a Black Powder Coat Finish.

**C (Vacant)**

**D Measurement**

The department will measure Pedestal Bases Black, Transformer Bases, Poles (type) Black, Traffic Signal Standards Aluminum (height) Black and Trombone Arms (length) Black as each unit special, 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.0060.47	Pedestal Bases Black	EACH
SPV.0060.48	Transformer Bases Breakaway 11 ½-Inch Bolt Circle Black	EACH
SPV.0060.49	Poles Type 2 Black	EACH
SPV.0060.50	Poles Type 3 Black	EACH
SPV.0060.51	Traffic Signal Standards Aluminum 13-FT Black	EACH
SPV.0060.52	Traffic Signal Standards Aluminum 15-FT Black	EACH
SPV.0060.53	Traffic Signal Standards Aluminum 10-FT Black	EACH
SPV.0060.54	Trombone Arms 15-FT Black	EACH
SPV.0060.55	Trombone Arms 20-FT Black	EACH
SPV.0060.56	Trombone Arms 25-FT Black	EACH

Payment for Pedestal Bases, Poles, Transformer Bases, Traffic Signal Standards and Trombone Arms is full compensation for providing the bases, poles standards and arms including grounding lugs and related mounting hardware; for hardware and fittings necessary to install; for leveling shims; for installing identification plaques; and for corrosion prevention.



- 63. Coneflower, Magnus Purple, 1 Gal. CG, Item SPV.0060.60; Daylily, Rosy Returns, 1 Gal. CG, SPV.0060.61; Daylily, Strawberry Candy, 1 Gal. CG, SPV.0060.62; Goldenrod, Fireworks, 1 Gal. CG, SPV.0060.63; New England Aster, Purple Dome, 1 Gal. CG, Item SPV.0060.64.**

**A Description**

This special provision describes furnishing and planting plants of the species, varieties and sizes specified and includes furnishing all necessary materials, excavating plant holes, backfilling, preparing Planting Mixture, mulching, fertilizing, watering, heeling in, disposing of surplus and waste materials, and as necessary, care and required replacements pending acceptance at the locations shown on the plans, according to standard spec 632, and as hereafter provided.

**B Materials**

All plant material shall conform to standard spec 632.2. All plants shall be from within the states of Wisconsin, Minnesota, Michigan or parts of northern Illinois located within Zone 4 of the “plant hardiness zone map” produced by the US Department of Agriculture, unless otherwise approved by engineer.

Conform to standard spec 632.2.2.4 regarding plant substitutions.

**C Construction**

For plant beds areas indicated on Drawings to receive Backfill for Plant Beds, 18-Inch Depth, prepare planting beds as directed in SPV.0035.01 Backfill for Plant Beds. For all other plant bed areas, prepare planting bed Backfill Material and Planting Mixture according to standard spec 632. Construction shall conform to the requirements of standard spec 632.3.

**D Measurement**

The department will measure Perennials by the number of each individual Perennial, acceptably completed.

**E Payment**

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

ITEM UMBER	DESCRIPTION	UNIT
SPV.0060.60	Coneflower, Magnus Purple, 1 Gal. CG	EACH
SPV.0060.61	Daylily, Rosy Returns, 1 Gal. CG	EACH
SPV.0060.62	Daylily, Strawberry Candy, 1 Gal. CG	EACH
SPV.0060.63	Goldenrod, Fireworks, 1 Gal. CG	EACH
SPV.0060.64	New England Aster, Purple Dome, 1 Gal. CG	EACH

Payment is full compensation for providing, transporting, handling, storing, placing and replacing plant materials; for excavating all plant holes, salvaging topsoil, mixing and backfilling; for providing and applying all required mulch; and for disposing of all excess and waste materials.

**64. Feather Reed Grasses, 1 Gal. CG, Item SPV.0060.65; Little Bluestem, Carousel, 4-Inch Pot CG, Item SPV.0060.66.**

**A Description**

This special provision describes furnishing and planting plants of the species, varieties and sizes specified and includes furnishing all necessary materials, excavating plant holes, backfilling, preparing Planting Mixture, mulching, fertilizing, watering, heeling in, disposing of surplus and waste materials, and as necessary, care and required replacements pending acceptance at the locations shown on the plans, according to standard spec 632 of the standard specification, and as hereafter provided.

**B Materials**

All plant material shall conform to standard spec 632.2. All plants shall be from within the states of Wisconsin, Minnesota, Michigan or parts of northern Illinois located within Zone 4 of the "plant hardiness zone map" produced by the US Department of Agriculture, unless otherwise approved by engineer.

Conform to standard spec 632.2.2.4 regarding plant substitutions.

**C Construction**

For plant beds areas indicated on Drawings to receive Backfill for Plant Beds, 18-Inch Depth, prepare planting beds as directed in SPV.0035.01 Backfill for Plant Beds. For all other plant bed areas, prepare planting bed Backfill Material and Planting Mixture according to standard spec 632. Construction shall conform to the requirements of standard spec 632.3.

**D Measurement**

The department will measure Ornamental Grasses by the number of each individual Ornamental Grass, 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.0060.65	Feather Reed Grass, 1 Gal. CG	EACH
SPV.0060.66	Little Bluestem, Carousel, 4-Inch Pot CG	EACH

Payment is full compensation for providing, transporting, handling, storing, placing and replacing plant materials; for excavating all plant holes, salvaging topsoil, mixing and backfilling; for providing and applying all required mulch; and for disposing of all excess and waste materials.

**65. Daffodil, Juanita, Bulb, Item SPV.0060.67.**

**A Description**

This special provision describes furnishing and planting Spring Bulbs of the species, varieties and sizes specified and includes furnishing all necessary materials, excavating plant

holes, backfilling, mulching, watering, heeling in, disposing of surplus and waste materials, and as necessary, care and required replacements pending acceptance at the locations shown on the plans, according to standard spec 632, and as hereafter provided.

**B Materials**

All plant material shall conform to standard spec 632.2.

Conform to standard spec 632.2.2.4 regarding plant substitutions.

**C Construction**

Construction shall conform to the requirements of standard spec 632.3.

Provide bulbs at rate and in locations indicated on Drawings. Install and provide bulb food or bone meal as directed on Streetscape Detail # 1 – BULB PLANTING DETAIL. Construction shall conform to the requirements of standard spec 632.3.

**D Measurement**

The department will measure Daffodil, Juanita, Bulb by the number of individual bulbs, 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.0060.67	Daffodil, Juanita, Bulb	EACH

Payment is full compensation for providing, transporting, handling, storing, placing and replacing plant materials; for excavating all plant holes, adding bulb food or bone meal; and for disposing of all excess and waste materials.

**66. Bench, Item SPV.0060.68.**

**A Description**

This special provision describes furnishing and installing Benches as shown on the plans, and as hereinafter provided.

**B Materials**

Benches shall be 72-inch Plainwell, by Landscapeforms, Inc. with center armrest and exterior wood finish, surface mountable.

Frame color to be Black.

Shop Drawings: Include on shop drawings, dimensions, bench options, mounting hardware and color.

Approval of shop drawings by John Rooney, City of Racine Engineer, (262) 636-9460, is required prior to beginning construction.

**C Construction**

The installation of the Benches shall be according to the manufacturer's instructions. The benches are to be surface-mounted as indicated on streetscape detail number 7.

**D Measurement**

The department will measure Benches as each individual, 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.0060.68	Bench	EACH

Payment is full compensation for furnishing and delivering all materials, including stainless anchors, non-corrosive pins, and non-corrosive mounting hardware; for furnishing all necessary excavation; for installing each Bench as per the plan details, manufacturer's instructions, and these special provisions.

**67. Decorative Plant Pot – Type 1, Item SPV.0060.69.****A Description**

This special provision describes furnishing and installing Decorative Plant Pot – Type 1 as shown on the plans, and as hereinafter provided.

**B Materials**

Decorative Plant Pot – Type 1 shall be Model #TF4306, Cargil Series 36" dia. X 24" ht, by Wausau made. Color: A26 Charcoal, Acid Wash. Contact Jeff Gramling (715) 359-5441; LS 9093, International 36" dia. X 24" ht, by Longshadow Classic Garden Ornaments, LTD., (618) 893-4831, Color: Aged Lead, LS 0033, or approved equal.

Shop Drawings: Include on shop drawings, dimensions, trash receptacle options, mounting hardware and color.

Approval of shop drawings by John Rooney, City of Racine Engineer, (262) 636-9460, is required prior to beginning construction.

**C Construction**

The installation of the Decorative Plant Pots shall be according to the manufacturer's instructions.

**D Measurement**

The department will measure Decorative Plant Pot – Type 1 as each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.69	Decorative Plant Pot – Type 1	EACH

Payment is full compensation for furnishing and delivering all materials; for installing each plant pot as per the plan details, manufacturer's instructions, and these special provisions.

**68. Decorative Plant Pot – Type 2, Item SPV.0060.70.****A Description**

This special provision describes furnishing and installing Decorative Plant Pot – Type 2 as shown on the plans, and as hereinafter provided.

**B Materials**

Decorative Plant Pot – Type 2 shall be Model #TF4307, Cargil Series 30" dia. X 20" ht, by Wausau made. Color: A26 Charcoal, Acid Wash. Contact Jeff Gramling (715) 359-5441; LS 9278, International 30" dia. X 20" ht, by Longshadow Classic Garden Ornaments, LTD., (618) 893-4831, Color: Aged Lead, LS 0033, or approved equal.

Shop Drawings: Include on shop drawings, dimensions, trash receptacle options, mounting hardware and color.

Approval of shop drawings by John Rooney, City of Racine Engineer, (262) 636-9460, is required prior to beginning construction.

**C Construction**

The installation of the Decorative Plant Pots shall be according to the manufacturer's instructions.

**D Measurement**

The department will measure Decorative Plant Pot – Type 2 as each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.70	Decorative Plant Pot – Type 2	EACH

Payment is full compensation for furnishing and delivering all materials; for installing each plant pot as per the plan details, manufacturer's instructions, and these special provisions.

## **69. Moving Existing Bench, Item SPV.0060.71.**

### **A Description**

This special provision describes moving existing benches for relocation elsewhere within the project limits. All existing benches that are not being relocated within the job limits shall be salvaged and returned to the City of Racine. Coordinate with John Rooney, City of Racine Engineer (262) 636-9460 in order to determine a location at which the city can come and pick up.

### **B (Vacant)**

### **C Construction**

Remove existing bench and fastening hardware, handle, store and reinstall the existing benches at location indicated on the Drawings and as indicated on Streetscape Detail #7 in a way that prevents damage to the bench.

### **D Measurement**

The department will measure Moving Existing Bench as each individual unit, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.71	Moving Existing Bench	EACH

Payment is full compensation for removing the existing bench and mounting hardware; for transporting and storing; for installing and re-anchoring per the plan details, manufacturer's instructions, and these special provisions; for salvaging and returning all un-used existing benches to the City of Racine.

## **70. Moving Existing Trash Receptacle, Item SPV.0060.72.**

### **A Description**

This special provision describes moving existing trash receptacle for relocation elsewhere within the project limits.

### **B (Vacant)**

### **C Construction**

Remove existing trash receptacle and fastening hardware, handle, store and reinstall the existing trash receptacle at location indicated on the Drawings and as indicated on Streetscape Detail #7 in a way that prevents damage to the trash receptacle.

### **D Measurement**

The department will measure Moving Existing Trash Receptacle as each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.72	Moving Existing Trash Receptacle	EACH

Payment is full compensation for removing the existing trash receptacle and mounting hardware; for transporting and storing; for installing and re-anchoring per the plan details, manufacturer's instructions, and these special provisions.

**71. Salvage Existing Decorative Plat Pot, Item SPV.0060.73.****A Description**

This special provision describes salvaging three existing decorative plant pots currently located at the Jonas statue roadway island. These are all to be given to the City of Racine for pickup and reuse. This special provision describes salvaging each existing decorative plant pot and making available for the City of Racine for pick up and removal from job site.

**B (Vacant)****C Construction**

Remove existing decorative plant pot, handle, store and coordinate with John Rooney, City of Racine Engineer, (262) 636-9460, in order to determine a location at which the city can come and pick up.

**D Measurement**

The department will measure Salvaging Existing Decorative Plant Pot as each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.73	Salvaging Existing Decorative Plant Pot	EACH

Payment is full compensation for removing the existing decorative plant pots; for transporting and storing; for coordinating with City of Racine Engineer per above.

**72. Construction Staking Sidewalk, Item SPV.0090.01.****A Description**

This special provision describes the contractor performed construction staking of the sidewalk.

**B (Vacant)**

### **C Construction**

Meet the pertinent requirements as set forth in standard spec 650.3 and as follows:

Set construction stakes or marks at 50-foot intervals, maximum. Set and maintain stakes as necessary to achieve the required accuracy and to support the method of operations. Set additional construction stakes as necessary to establish location and grade of sidewalk, including points of change in alignment grade, and at radius points. Locate stakes to within 0.02 feet of the true horizontal position, and establish the grade elevation to within 0.01 feet of the true vertical position.

### **D Measurement**

The department will measure Construction Staking Sidewalk 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.0090.01	Construction Staking Sidewalk	LF

Payment is full compensation for locating and setting all construction stakes; for relocating and resetting damaged or missing construction stakes.

## **73. Aerial Cable Aluminum Triplex 2 AWG, Item SPV.0090.02; Aerial Cable Aluminum Quadplex 2 AWG, Item SPV.0090.03.**

### **A Description**

This special provision describes furnishing and installing temporary overhead lines for secondary lighting distribution as shown on the plans. The receptacle circuits will not be operational (connected) under temporary conditions.

### **B Materials**

The aerial cable shall consist of a triplex or quadplex assembly of two or three XLP insulated power conductors, respectively, with an ACSR bare messenger (for ground conductor where appropriate) wire.

Where required on the plans to connect to existing underground circuiting, the contractor shall provide an appropriately sized junction box at the base of the wood pole for an above ground splice. The cable that extends to 10 feet above grade shall be appropriately protected by a plastic cable guard.

### **C Construction**

The contractor shall install the overhead lines in a manner which is safe and according to applicable codes, and shall correct excessive sag or loose connections for the length of the contract, or until removal, whichever comes first. The cable shall maintain minimum height above any roadway surface as indicated on the plans.



Provide insulators or other appropriate materials to connect aerial cable to existing and proposed poles. Attachment methods shall NOT damage the pole finish. Any damage shall be repaired by the contractor. Extend the aerial cable down the existing or proposed lighting unit by removing the top cap and extending down the interior of the pole shaft and connecting to the underground conductors as appropriate. Provide means to reduce potential water entering lighting unit due to removed pole cap

**D Measurement**

The department will measure Aerial Cable Aluminum (type) 2 AWG, completed according to the contract accepted, by the linear foot of work.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Aerial Cable Aluminum Triplex 2 AWG	LF
SPV.0090.03	Aerial Cable Aluminum Quadplex 2 AWG	LF

Payment is full compensation for furnishing and installing the wires; junction boxes; cable guards; for hardware, insulators, tie wire, splices, and circuit cuts; and for dead ends.

**74. Concrete Curb Type D Modified, Item SPV.0090.05.**

**A Description**

This special provision describes providing concrete curb at locations as shown on the plans.

**B Materials**

Furnish materials in conformance with standard spec 601.

**C Construction**

Perform work according to standard spec 601.

**D Measurement**

The department will measure Concrete Curb Type D Modified 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	Concrete Curb Type D Modified	LF

Payment is full compensation as specified in standard spec 601.5.

## **75. Aluminum Edger, Item SPV.0090.10.**

### **A Description**

This special provision describes furnishing and installing Aluminum Edger as shown on the plans, and as hereinafter provided.

### **B Materials**

Aluminum Edger to be 3/16-inch by 4-inch size, color to be black, aluminum stakes to be 15-inch length, maximum 5 foot spacing.

Samples: Submit two 6-inch long samples indicating size and color to engineer, for approval prior to construction.

### **C Construction**

The installation of the Aluminum Edger shall be according to the manufacturer's instructions. The Aluminum Edger is to be installed as indicated on the Landscape Details.

### **D Measurement**

The department will measure Aluminum Edger 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.0090.10	Aluminum Edger	LF

Payment is full compensation for furnishing and delivering all materials and samples, including aluminum stakes, for installing aluminum edger as per the plan details, manufacturer's instructions, and these special provisions.

## **76. Fiber Optic Tracer Cable 12 AWG, Item SPV.0090.40.**

### **A Description**

This special provision describes furnishing and installing fiber optic tracer cable in all conduits containing fiber optic cable.

### **B Materials**

Provide the tracer cable with a black insulation cover, No. 14 AWG, XLP, USE rated, 600 VAC, single conductor, copper wire.

### **C Construction**

Install the tracer cable in all conduits containing fiber optic cable, running continuously through all pull boxes. Install the tracer cable to each control cabinet but do not enter the cabinet. The tracer cable may be spliced only in pull boxes. Make splices only between full rolls of wire. For the cable splice use a Western Union Splice soldered with resin core flux. All exposed surfaces of the solder shall be smooth. Solder splices using a soldering iron.

Cover the splice with a WCSMW 30/100 heat shrink tube, minimum length 4-inches, and with a minimum one inch coverage over the XLP insulation, underwater grade.

#### **D Measurement**

The department will measure Fiber Optic Tracer Cable 12 AWG in length by the linear foot of cable, measured along the centerline of the conduit.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.40	Fiber Optic Tracer Cable 12 AWG	LF

Payment is full compensation for furnishing and installing the tracer cable; splicing; properly disposing of surplus materials.

### **77. Dielectric Fiber Optic Cable 24-Count, Item SPV.0090.41.**

#### **A Description**

Work under this item shall consist of furnishing and installing 24 Count Dielectric Fiber Optic Communications Cable as shown on the Plans.

#### **B Materials**

The Dielectric Fiber Optic Cable shall meet the following requirements:

- Color coding shall meet TIA/EIA-598B, "Color Coding of Fiber Optic Cables."
- Meet or exceed applicable National Electrical Safety Code specifications.
- Fiber Construction - Optical fibers shall be placed inside a loose buffer tube. Each buffer tube shall contain 6/12 fibers dependent on the fiber size. The fibers shall not adhere to the inside of the buffer tube.
- In buffer tubes containing multiple fibers, the colors shall be stable across the specified storage and operating temperature range and not subject to fading or smearing onto each other or into the gel filling material. Colors shall not cause fibers to stick together.
- Buffer tubes shall be kink resistant within the specified minimum bend radius.
- Fillers may be included in the cable core to lend symmetry to the cable cross-section where needed.
- The central anti-buckling member shall consist of a glass reinforced plastic rod. The purpose of the central member is to prevent buckling of the cable.
- Each buffer tube shall be filled with a non-hygroscopic, non-nutritive to fungus, electrically non-conductive, homogenous gel or powder. The gel or powder shall be free from dirt and foreign matter. The gel shall be readily removable with conventional nontoxic solvents. Buffer tubes shall be stranded around a central member using the reverse oscillation, or "S-Z", stranding process.

- The cable core shall contain a water-blocking material. The water blocking material shall be non-nutritive to fungus, electrically non-conductive and homogenous. It shall also be free from dirt and foreign matter and shall be readily removable with conventional (nontoxic) solvents.
- Binders shall be applied with sufficient tension to secure the buffer tubes to the central member without crushing the buffer tubes. The binders shall be non-hygroscopic, non-wicking and dielectric with low shrinkage. The cable shall contain at least one ripcord under the sheath for easy sheath removal. Tensile strength shall be provided by a combination of high tensile strength dielectric yarns. The high tensile strength dielectric yarns shall be helically stranded evenly around the cable core.
- The jacket or sheath shall be free of holes, splits, and blisters. The cable jacket shall contain no metal elements and shall be of a consistent thickness. Cable jackets shall be marked with: Manufacturer's Name, Optical Cable-Year, Telephone Handset Symbol fiber count.
- Where the Description conforms to the following depending on cable type: Single-Mode Cable: XXF SMF28E                      XX denotes the fiber count.
- The cable length shall also be marked every meter. The actual length of the cable shall be within -0/+1% of the length markings. Cable marking shall be in contrasting color to the cable jacket. The height of the marking shall be approximately 2.5 mm.
- The maximum pulling tension shall be 2700 N (608 lbf) during installation (short term) and 890 N (200 lbf) long term installed.
- The shipping, storage, and operating temperature range of the cable shall be -40° C to +70° C. The installation temperature range of the cable shall be -30° C to +70° C.

### **C Construction**

All cable shall be installed as per Siecor Recommended Procedure 005-011 "Fiber Optic Cable Placing B Duct". These general procedures will be followed regardless of the manufacturer of the cable.

Testing - The contractor shall provide the date, time and location of any tests required by this specification.

Upon completion of the cable installation, splicing, and termination, the contractor shall use an OTDR to test all fibers for continuity, events above 0.1 dB, and total attenuation of the cable. The test procedure is as follows:

- A Certified Fiber Optics Technician utilizing an Optical Time Domain Reflectometer (OTDR) must conduct the installation test. The Technician is directed to conduct the test using the Standard Operating Procedure as defined by the manufacturer of the test equipment.
- At the completion of the test, the contractor shall provide two copies of documentation of the test results to the department. The test documentation shall be bound and include the following:

- Cable and Fiber Identification
- Cable ID
- Cable Location - begin and end point
- Fiber ID, including tube and fiber color
- Operator Name
- Date and Time
- Setup Parameters
- Wavelength
- Pulse width (OTDR)
- Refractory index (OTDR)
- Range (OTDR)
- Scale (OTDR)
- Test Results

These results shall be provided in standard readable electronic format (e.g. Excel or Adobe PDF).

- OTDR Test
- Total Fiber Trace
- Splice Loss/Gain
- Events greater than 0.10 dB
- Measured Length (Cable Marking)
- Total Length (OTDR)

The following shall be the criteria for the acceptance of the cable:

- The test results shall demonstrate that the dB/km loss does not to exceed +3% of the factory test or 1% of the cable's published production loss. The error rate will be considered.
- The total dB loss of the cable, less events, shall not exceed the manufacturer's production specifications as follows: .5 db/km at both 1310 and 1550 nm.
- If the total loss exceeds these specifications, the contractor shall replace or repair that cable run at the contractor's expense, both labor and materials. Elevated attenuation due to exceeding the pulling tension during installation will require the replacement of the cable run at the contractor's expense, both labor and materials.

#### **D Measurement**

The department will measure Dielectric Fiber Optic Cable 24-Count in length by the linear foot of cable.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.41	Dielectric Fiber Optic Cable 24-Count	LF

Payment is full compensation for furnishing and installing the fiber optic cable; and for properly disposing of surplus materials.

## **78. Locate and Replace Existing Property Monuments, Item SPV.0105.01.**

### **A Description**

This special provision describes locating existing property monuments prior to ground disturbing activities within the construction limits of Hamilton Street, Douglas Avenue and connecting sideroads and replacing existing property monuments that are determined to be lost or disturbed by construction operations, as directed by the engineer, and as hereinafter provided.

This provision does not relinquish the contractor of their responsibility under standard spec 107.11.

### **B Materials**

Provide replacement property monuments that are one-inch inside diameter by 24-inch long iron pipe or 3/4-inch diameter iron rod or rebar that are 24 inches long in locations outside of pavement areas, a Berntsen Steel Nail Marker for placement in asphalt pavement, or a Berntsen BP1 Brass Marker with anchoring plug for placement in concrete surface areas.

### **C Construction**

Prior to ground disturbing construction activity, research, locate and document the adjacent property monuments located within the slope intercepts and temporary easement areas. Tie the located property monuments in with coordinates accurate to 1:3000 and tied to at least two adjacent section comers that will not be disturbed by any project.

Prepare a property monument location map showing the type of monuments originally found with their coordinates. A legible tax map or right-of-way plat is acceptable as a base map for the property monument location map. Provide a copy of the property monument location map to the engineer within 14 days of locating the existing property monuments.

All work under this item is to be performed by, or under the direction of, a land surveyor registered in the State of Wisconsin.

After ground disturbing construction is completed, property monument locations will be verified. Replace or reset as necessary, any property monuments that are lost or disturbed.

### **D Measurement**

The department will measure Locate and Replace Existing Property Monuments as a single lump sum unit of work, acceptably completed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Locate and Replace Existing Property Monuments	LS

Payment is full compensation for furnishing all research, field survey, locating, and recording of field data necessary to locate and determine coordinates for existing property monuments within the construction limits prior to construction; for replacing or resetting, as necessary, property monuments that are lost or disturbed from their original location; for furnishing property monuments; for furnishing a registered land surveyor; and for preparing, annotating and delivering the property monument location map to the engineer.

## **79. Video Detection System, Hamilton Street & Main Street, Item SPV.0105.40; Douglas Avenue & Marquette Street, Item SPV.0105.41; Douglas Avenue & High Street, Item SPV.0105.42; Douglas Avenue & Yout Street, Item SPV.0105.43.**

### **A Description**

This specification sets forth the minimum requirements for a system that detects vehicles on a roadway using only video images of vehicle traffic.

### **B Materials**

#### **B.1 System Hardware**

The video detection system shall consist of one to six video cameras, a video detection processor (VDP) capable of processing from one to six video sources, 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 144 detection zones shall be available. A separate computer shall not be required to program the detection zones.

#### **B.3 Functional Capabilities**

The VDP shall process video from up to 6 video sources simultaneously. The sources can be video cameras or S-VHS video tape players. The video shall be input to the VDP in RS 170 format and shall be digitized and analyzed in real time. A separate microprocessor, for each video input, shall be used.

The VDP shall detect the presence of vehicles in up to 24 detection zones per camera. A detection zone shall be approximately the width and length of one car. Detection zones shall be programmed via an on board menu displayed 9" video color monitor and a pointing device connected to the VDP. The menu shall facilitate placement of the detection zones quickly and easily. A separate computer shall not be required for programming detection zones.

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 RS232 port for communications with an external computer. The VDP RS232 port shall be multi-drop capable.

The VDP shall accept new detection patterns from an external computer through the RS-232 port when the external computer uses the correct communications protocol for downloading detection patterns.

The VDP shall send its detection patterns to an external computer through the RS-232 port when requested when the external computer uses the correct communications protocol for uploading detection patterns.

#### **B.4 Vehicle Detection**

Up to 144 detection zones shall be supported and each detection zone can be sized to suit the site and the desired vehicle detection region.

Detection zones shall be capable of being OR' ed or AND'ed together to indicate vehicle presence on a single detector output channel.

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

Up to 3 detection zone patterns shall be saved for each camera within the VDP memory and this memory shall prevent 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 available within 1 second of activation.

When a vehicle is detected crossing a detection zone, the comers of the detection zone will flash 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 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. See section B.5 for recommended camera placement.



The VDP shall provide 32 channels of detection through either a NEMA TS1 port or a NEMA TS2 port.

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 zones shall be directional to reduce false detections from objects traveling in directions other than the desired direction of travel in the detection area.

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

Detection zone setup shall not require temporal information such as date and time. The VDP shall process the video input from each camera using a separate microprocessor at 30 frames per second.

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.

#### **B.4 VDP Hardware**

The VDP shall be housed in a durable metal enclosure suitable for shelf mounting or 19" rack mounting in a roadside traffic equipment cabinet. The VDP enclosure shall not exceed 7" height, 17.75" width, and 10.5" depth. The VDP shall be modular in construction with plug in field replaceable units (FRU' s) to minimize trouble shooting and repair time.

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 VDP shall be powered by 120 V AC 60Hz single-phase power. Surge ratings shall be as set forth in NEMA specifications. Power consumption shall not exceed 135 watts.

The VDP shall include an RS232 port serial communications with a remote computer. The VDP RS232 port shall be multi-drop capable. This port shall be a 9 pin female "D" subminiature connector on the front of the VDP.

The VDP shall include ports for transmitting TS 1 and TS2 detections to a traffic controller. The TS1 port shall be a 37 pin female "D" connector on the front of the VDP. The TS2 port shall be a 15 pin female "D" connector on the front of the VDP.

The front of the VDP shall include up to six BNC video input connections suitable for RS170 video inputs. Each 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.

The front of the VDP shall include one BNC video output. Any one of the six video inputs shall be switch selectable for output on this BNC connection via the pointing device at the VDP, or through software and a personal computer connected through the RS-232 multi-drop port via a full duplex modem link.

The video inputs to the VDP shall include transient voltage suppression and isolation.

Amplification that shall assure the 1-volt peak to peak video signal integrity is maintained despite video cabling losses and externally induced transients. The amplifier shall have a minimum common mode rejection at 60 Hz of 90 dB.

The VDP enclosure shall include provisions to be bonded to a good earth ground.

The front face of the VDP shall contain indications, such as LED displays, to enable the user to view real time detections for up to 8 detector output channels at a time.

## **B.5 Camera**

The video camera shall be model number RZ4C or newest version with compatible hardware and software.

The video cameras used for traffic detection shall be furnished by the 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 0.1lux to 10,000 lux.

The camera shall use a CCD sensing element and shall output monochrome video with resolution of not less than 380 lines vertical and 380 lines horizontal.

The camera shall include an electronic shutter control lens.

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. A single camera configuration shall be used for all approaches in order to minimize the setup time and spares required by the user.

The camera electronics shall include AGC to produce a satisfactory image at night.

The camera shall be housed in a weather-tight sealed enclosure. 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 sun shield. 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 5" diameter, less than 14" long, and shall weigh less than 5 pounds when the camera and lens are mounted inside the enclosure.

The camera enclosure shall include a thermostatically controlled heater to assure proper operation of the lens shutter at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure.

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.

The camera shall be powered by 120 V AC 60 Hz. Power consumption shall be 15 watts or less under all conditions.

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 be connected within the same connector.

The video signal output by the camera shall be color in RS 170 or CCIR format. The video signal shall be fully isolated from the camera enclosure and power cabling.

## **B.6 Monitor**

The video detection monitor shall be a color video monitor with a minimum 9-inch diagonal picture tube. It shall support EIA standards RS-170 composite video signal (0.75 -1.0 V p-p). 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 BNC.

The monitor power source shall be 120 VAC+/- 10%, 60 Hz. Ambient operating temperature shall be +50 to +122 degrees Fahrenheit.

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

Dimensions shall not exceed 9" (W), 10" (H), and 10" (D).

### **B.7 Power and Coaxial Cable**

The coaxial cable to be used between the camera and the *VDP* in the traffic cabinet shall be Belden 8281 or a 75 ohm, precision video cable with 20 gauge solid bare copper conductor (9.9 ohms/M), solid polyethylene insulating dielectric, 98% (min) tinned copper double-braided shield and black polyethylene outer covering. The signal attenuation shall not exceed 0.78 dB per 100 feet at 10 MHz. Nominal outside diameter is 0.304 inches. The coax cable shall be a continuous unbroken run from the camera to the VDP. This cable shall be suitable for installation in conduit or overhead with appropriate span wire. 75-ohm BNC plug connectors should be used at both the Camera and Cabinet ends. The supplier of the video detection system shall approve the coaxial cable, BNC connector, and crimping tool, and the manufacturer's instructions must be followed to ensure proper connection.

The power cabling shall be 16 AWG three conductor cable. The cabling shall comply with the National Electric Code, as well as local electrical codes.

### **B.8 Manufacturer Warranty**

The supplier shall provide a limited two-year warranty on the video detection system. See suppliers standard warranty included in the Terms and Conditions of Sale documentation.

During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory-certified personnel or factory-certified installers.

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

### **B.9 Maintenance and Support**

The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the video detection system. These parts shall be available for delivery within 30 days of placement of an acceptable order at the supplier's then current pricing and terms of sale for said parts.

The supplier shall maintain an ongoing program of technical support for the video detection system. This technical support shall be available via telephone, or via personnel sent to the installation site upon placement of an acceptable order at the supplier's then current pricing and terms of sale for onsite technical support services. Installation or training support shall be provided by a factory authorized representative.

## **C Construction**

Furnish and install Video Detection System.

Notify the City of Racine Engineering Department a minimum of three business days before installing cables. Coordinate the installation of cable with the City of Racine electricians.

The cable shall be installed according to the routing schedule in the plans. The cables shall be installed through a 1 ½-inch hole with rubber grommet located 2-feet from the top of pole. The camera shall be installed on the pole above the hole, providing a 3-foot coil of cable.

The video detection system shall be installed by supplier factory certified installers and as recommended by the supplier and documented in installation materials provided by the supplier.

#### **D Measurement**

The department will measure Video Detection System (location) as a single lump sum unit of work for each intersection, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.40	Video Detection System, Hamilton Street & Main Street	LS
SPV.0105.41	Video Detection System, Douglas Avenue & Marquette Street	LS
SPV.0105.42	Video Detection System, Douglas Avenue & High Street	LS
SPV.0105.43	Video Detection System, Douglas Avenue & Yout Street	LS

Payment is full compensation for furnishing and installing the video detection system including, cameras, monitor, cabling, mounting brackets; for testing; and for set up.

### **80. Temporary Traffic Signal Modifications, Main Street & Goold Street, Item SPV.0105.44.**

#### **A Description**

This specification sets forth the minimum requirements for the temporary traffic modifications at Main Street & Goold Street as shown on the plan and as hereinafter provided.

#### **B Materials**

Furnish and install traffic signals wiring, poles, standards, bases and signal indications as shown in the plans.

As shown in the plans, furnish electrical wiring according to standard spec 655.

As shown in the plans, furnish poles, standards and bases according to standard spec 657.

As shown in the plans, furnish traffic signals according to standard spec 658.

Salvage and store existing traffic signal equipment, to be reinstalled once the STH 32 detour is no longer in place.

### **C Construction**

Construct temporary traffic signal work as noted in plan, while traffic signal is operational. Only one primary signal indication may be removed at a time.

Contact the city five working days prior to beginning temporary signal work.

City of Racine forces will complete final cabling in traffic signal cabinet and make necessary timing revisions to controller.

The City of Racine will be responsible for operating and maintaining the traffic signal once the temporary traffic signal modifications have been acceptably completed.

Once the STH 32 detour is no longer in place, the contractor shall return the traffic signal to its initial operating condition.

### **D Measurement**

The department will measure Temporary Traffic Signal Modifications (location) as a single lump sum unit of work for each intersection, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.44	Temporary Traffic Signal Modifications, Main Street & Goold Street	LS

Payment for the Temporary Traffic Signal Modifications is full compensation for providing the temporary traffic signal installation, for removal and returning the signal to its initial operating condition.

## **81. Stamped Colored Concrete Sidewalk, 4-Inch, Item SPV.0165.01.**

### **A Description**

This special provision describes constructing stamped colored concrete sidewalk at locations shown on the plan and as hereinafter provided. Perform this work according to the requirements of standard spec 602, except as hereinafter provided.

### **B Materials**

The materials used for the coloring of concrete shall be according to industry and the manufacturer's standards.

Use low chert concrete for the colored concrete.

The concrete color agent shall meet the following requirements:

Color:	To be determined.
Method of Application:	Integral Color
Stamped Pattern:	Smooth Slate Texture

Samples: Submit two min. 6-inch by 6-inch sample pieces of Stamped Colored Concrete Paving, 5-inch illustrating color, surface finish and texture.

The City of Racine representative may, at their discretion, change the requested color and/or stamp pattern.

### **C Construction**

Mock up: Prepare a representative slab for demonstration purposes and for obtaining approval of the proposed concrete color and stamping pattern. The size of the slab shall be a minimum of 16 square feet and shall incorporate the proposed tooled, 24-inch square control joint grid pattern. The cost of producing the representative slab shall be paid for by the square foot as defined below. Protect the slab while curing and remove and properly dispose of it upon approval for the concrete color.

Prepare the mock up 30 days prior to your anticipated date for beginning installation of the colored concrete sidewalk. During this timeframe, the City of Racine will have the option of approving the concrete color and stamping pattern, or requesting a change in either the color and/or pattern.

### **D Measurement**

The department will measure Stamped Colored Concrete Sidewalk 4-Inch by area in square feet, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Stamped Colored Concrete Sidewalk 4-Inch	SF

Payment is full compensation for furnishing and installing the concrete coloring agent; constructing the colored and stamped surfaces; preparing a representative sample; properly removing of surplus materials.

## **82. Colored Concrete Paving, 4-Inch, Item SPV.0165.02.**

### **A Description**

This special provision describes constructing colored concrete sidewalk according to the pertinent provisions of standard spec 405 and as hereinafter provided.

### **B Materials**

The materials used for the coloring of concrete shall be according to industry and the manufacturer's standards.

Use low chert concrete for the colored concrete.

The concrete color agent shall meet the following requirements:

Color:	To be determined
Method of application:	Integral Color
Surface Finish:	Light Broom Finish

Samples: Submit two min. 6-inch by 6-inch sample pieces of Colored Concrete Paving, 4-inch illustrating color, surface finish and texture.

The City of Racine may, at their discretion, change the requested color and/or surface finish.

### **C Construction**

Mock up: Prepare a representative slab for demonstration purposes and for obtaining approval of the proposed concrete color and stamping pattern. The minimum size of the slab shall be a minimum of 16 square feet and shall incorporate the proposed tooled, 48-inch square control joint grid pattern. Center tooled joints on mock up slab. The cost of producing the representative slab shall be paid for by the square foot as defined below. Protect the slab while curing and remove and properly dispose of it upon approval for the concrete color.

Prepare the mock up 30 days prior to your anticipated date for beginning installation of the colored concrete sidewalk. During this timeframe, the City of Racine will have the option of approving the concrete color and surface finish, or requesting a change in either the color and/or finish.

### **D Measurement**

The department will measure Colored Concrete Paving, 4-Inch by area in square feet, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.02	Colored Concrete Paving, 4-Inch	SF

Payment is full compensation for furnishing and installing the concrete coloring agent; constructing the colored concrete surfaces; preparing a representative sample; preparing mock up; and for properly removing of surplus materials.

## **83. Colored Concrete Paving, 8-Inch, Item SPV.0165.03.**

### **A Description**

This special provision describes constructing colored concrete crosswalk according to the pertinent provisions of standard spec 405 and as hereinafter provided.



## **B Materials**

The materials used for the coloring of concrete shall be according to industry and the manufacturer's standards.

Use low chert concrete for the colored concrete.

The concrete color agent shall meet the following requirements:

Color:	To be determined
Method of application:	Integral Color
Surface Finish:	Light Broom Finish

Samples: Submit two min. 6-inch by 6-inch sample pieces of Colored Concrete Crosswalk Paving, 8-inch illustrating color, surface finish and texture.

The City of Racine may, at their discretion, change the requested color and/or surface finish.

## **C Construction**

Mock up: Prepare a representative slab for demonstration purposes and for obtaining approval of the proposed concrete color and stamping pattern. The minimum size of the slab shall be a minimum of 8'-0" wide by 4'-0" long and shall incorporate the proposed tooled control joint pattern as shown on Streetscape Details sheet, detail number one. Mock up shall include 12-inch square corner details, typical to where the crosswalk will meet the curb and gutter. The cost of producing the representative slab shall be paid for by the square foot as defined below. Protect the slab while curing and remove and properly dispose of it upon approval for the concrete color.

Prepare the representative sample 30 days prior to your anticipated date for beginning installation of the colored concrete sidewalk. During this timeframe, the City of Racine will have the option of approving the concrete color and surface finish, or requesting a change in either the color and/or finish.

## **D Measurement**

The department will measure Colored Concrete Crosswalk Paving, 8-Inch by area in square feet, acceptably completed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.03	Colored Concrete Crosswalk Paving, 8-Inch	SF

Payment is full compensation for furnishing and installing the concrete coloring agent; constructing the colored concrete surfaces; tie bars and dowel bars; preparing a representative sample; preparing mock up; and for properly removing of surplus materials.

## **84. Shredded Hardwood Bark Mulch, Item SPV.0180.10.**

### **A Description**

This special provision describes furnishing and installing Shredded Hardwood Bark Mulch as shown on the plans, and as hereinafter provided. Minimum mulch thickness to be 3-inches.

### **B Materials**

Shredded Hardwood Bark Mulch shall be natural, shredded hardwood bark mulch, free of growth or germination inhibiting ingredients, and shall be no larger than 4-inches in any dimension, and suitable for top dressing of planting beds. No artificial coloration shall be added.

Samples: Submit sample demonstrating color, size and properties to engineer, for approval prior to construction.

### **C Construction**

The installation of the Shredded Hardwood Bark Mulch shall be according to the plans and details. Keep mulch minimum 2-inches away from all tree trunks, woody stems and herbaceous shoots.

### **D Measurement**

The department will measure Shredded Hardwood Bark Mulch by square yard of material furnished and placed, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.10	Shredded Hardwood Bark Mulch	SY

Payment is full compensation for furnishing and delivering all Shredded Hardwood Bark Mulch.

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**ADDITIONAL SPECIAL PROVISION 1 (ASP 1)  
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)  
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS**

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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   7   (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 5 (number) TrANS Apprentice(s) be utilized on this contract.

- 3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.
- 4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.
- 5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

## ***I. RATIONALE AND SPECIAL NOTE***

The \$5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the \$5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

## ***II. IMPLEMENTATION***

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

#### **IV. TRANS TRAINING**

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

#### **V. APPRENTICESHIP TRAINING**

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical underrepresentation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

- (1) To increase the overall effectiveness of the State highway agencies' approved training programs.
- (2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

## ADDITIONAL SPECIAL PROVISION 3

### DISADVANTAGED BUSINESS ENTERPRISE [DBE] PROGRAM IMPLEMENTATION

#### 1. Description

- a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:
  - (1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.
  - (2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.
- b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance.  
<http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf>
  - (1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:
    - i. Produce accurate and complete quotes.
    - ii. Understand highway plans applicable to their work.
    - iii. Understand specifications and contract requirements applicable to their work.
    - iv. Understand contracting reporting requirements.
  - (2) Wisconsin DOT 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, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.
  - (3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at:  
<http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx>

## 2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

- a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.
- b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.
- c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.
- d. **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.
- e. **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.
- f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

## 3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

## 4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

### a. Department's DBE Evaluation Process

WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

### b. Documentation Submittal

The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form



[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) ([DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**

If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

- i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.
- ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:
  - (a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.
  - (b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**

If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

## 5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

- a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

## b. Prime Contractors should:

- (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
- (2) Prime contractors may 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. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: [DOTDBESupportServices@dot.wi.gov](mailto:DOTDBESupportServices@dot.wi.gov).
- (3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A.* Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.
  - 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 you are seeking quotes to [DOTDBESupportServices@dot.wi.gov](mailto:DOTDBESupportServices@dot.wi.gov).
  - ii. SBN is the preferred outreach tool. <https://www.bidx.com/wi/main>. Other acceptable means include postal mail, email, fax, phone call.
    - (a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
    - (b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, 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) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up 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 Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.

- (1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, **a discussion with the DBE firm** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE 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 and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
- (2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

- (3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. "Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as 'all or none' quote to the prime." When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms' quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.
- 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.
- d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.
- (1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
  - (2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
  - (3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
  - (4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
  - (5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

## 6. 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, a prime contractor and the regular dealer of 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 in cases where the prime has submitted the DBE and material 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 is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE 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 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 form or 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 supplies.
- b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE'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 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 contractors negotiated unit price.

## **7. Bidder's Appeal Process**

- a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.
- b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

## **8. Department's Criteria for DBE Participation**

### **Directory of DBE firms**

- a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:  
<http://wisconsin.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx>
- b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

## 9. Counting DBE Participation

### Assessing DBE Work

- a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:
- b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.
- c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.
- d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.
- e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.
- f. It is the prime contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE certified 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.
- g. It is the prime contractor's responsibility to assess the DBE firm's ability to perform the work for which s/he 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.

## 10. Commercially Useful Function

- a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.
- b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether 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 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 contract work and it 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 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>

## 12. 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 provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

### 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, count **100%** percent of the cost of the materials or supplies toward DBE goals.

### b. Regular Dealers of Material and/or Supplies

- (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
- (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
- (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
  - i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
  - ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

### c. Brokers, Transaction Expeditors, Packagers, Manufacturers Representatives

- (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit; however, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives or other persons who arrange or expedite transactions.
- (2) Brokerage fees have historically been 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, or fees or transportation charges for the delivery of materials or supplies required on a job site.
- (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and 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.* Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

### 13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

### 14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

### 15. Mentor Protégé

- a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.
- b. DBE credit will be 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 that can be counted on any WisDOT project.

### 16. DBE Replacement or Termination

#### Contractual Requirement

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

#### Contractor Considerations

- a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [DT1506] 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.

- b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.
- c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.
- d. 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 is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.
- e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.
  - (1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
    - i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your expectations for successful performance on the contract. Document these efforts in writing.
    - ii. If those efforts fail, provide written notice to the DBE subcontractor of your *intent* to request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
    - iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
    - iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days 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 manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
    - v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

### **The Request to Replace or Terminate a DBE**

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.



*Examples of Good Causes to Replace a DBE 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.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

**Evaluation and Response to the Request**

If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) or by calling 608-267-3849.

**17. DBE Utilization beyond the approved DBE Commitment Form DT1506**

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

- a. Send an email to the DBE Engineer at [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.  
If the scope change added work for a participating DBE; list the date and reason for the scope change.
- b. Forward a complete, signed Attachment 'A' form to the DBE Office at [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov). A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.  
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

## **18. Contract Modifications**

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

## **19. Payment**

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

## APPENDIX A

### Sample Contractor Solicitation Letter Page 1

*This sample is provided as a guide not a requirement*

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#### GFW SAMPLE MEMORANDUM

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**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](mailto:Joe@joetheplumber.com)

Fax: (000) 123- 4657

## Sample Contractor Solicitation Letter Page 2

*This sample is provided as a guide not a requirement*

### REQUEST FOR QUOTATION

**Prime's Name:** \_\_\_\_\_  
**Letting Date:** \_\_\_\_\_  
**Project ID:** \_\_\_\_\_

**Please check all that apply**

- ☐ Yes, we will be quoting on the projects and items listed below  
☐ No, we are not interested in quoting on the letting or its items referenced below  
☐ Please take our name off your monthly DBE contact list  
☐ We have questions about quoting this letting. Please have someone contact me at this number

**Prime Contractor's Contact Person**

**DBE Contractor Contact Person**

\_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 \_\_\_\_\_

**Please circle the jobs and items you will be quoting below**

Proposal No.	1	2	3	4	5	6	7
County							

**WORK DESCRIPTION:**

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

## **APPENDIX B**

### **BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT**

*This list is not a set of requirements; it is a list of potential strategies*

#### **Primes**

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE ‘training session’ Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

#### **DBE**

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

## APPENDIX C

### Types of Efforts considered in determining GFE

*This list represents concepts being assessed; analysis requires additional steps*

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

## **APPENDIX D**

### **Good Faith Effort Evaluation Guidance**

#### ***Excerpt from Appendix A of 49 CFR Part 26***

#### **APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS**

- I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.
- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
  - A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
  - B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
  - C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
  - D.
    - (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
    - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a

contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

- E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.
  - F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
  - G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
  - H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.



## Appendix E

### Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription.

Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
  - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.
2. Create sub-quotes for the subcontracting community:
  - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
  - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
  - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request.
  - d. Add attachments to sub-quotes.
3. View sub-quote requests & responses:
  - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
  - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.
4. View Record of Subcontractor Outreach Effort:
  - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
  - b. Easily locate pre-qualified and certified small and disadvantaged businesses.
  - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
  - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
  - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
  - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
  - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
  - c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
  - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
  - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on 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](http://www.bidx.com) and select “Order Bid Express.” The Small Business Network is a part of the Bid Express Basic Service.
  - b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588.

## **ADDITIONAL SPECIAL PROVISION 4**

### **Payment to 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 may also withhold routine 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.

### **Release of Routine Retainage**

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

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.

## ADDITIONAL SPECIAL PROVISION 6

### ASP 6 - Modifications to the standard specifications

*Make the following revisions to the standard specifications:*

#### 104.10.1 General

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Subsection 104.10 specifies a 2-step process for contractors to follow in submitting a cost reduction incentive (CRI) for modifying the contract in order to reduce direct construction costs computed at contract bid prices. The initial submittal is referred to as a CRI concept and the second submittal is a CRI proposal. The contractor and the department will equally share all savings generated to the contract due to a CRI as specified in 104.10.4.2(1). The department encourages the contractor to submit CRI concepts.

#### 104.10.4.2 Payment for the CRI Work

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) The department will pay for completed CRI work as specified for progress payments under 109.6. The department will pay for CRI's under the Cost Reduction Incentive administrative item. When all CRI costs are determined, the department will execute a contract change order that does the following:
1. Adjusts the contract time, interim completion dates, or both.
  2. Pays the contractor for the unpaid balance of the CRI work.
  3. Pays the contractor 50 percent of the net savings resulting from the CRI, calculated as follows:

$$NS = CW - CRW - CC - DC$$

Where:

**NS** = Net Savings

**CW** = The cost of the work required by the original contract that is revised by the CRI. CW is computed at contract bid prices if applicable.<sup>[1]</sup>

**CRW** = The cost of the revised work, computed at contract bid prices if applicable.<sup>[1]</sup>

**CC** = The contractor's cost of developing the CRI proposal.

**DC** = The department's cost for investigating, evaluating, and implementing the CRI proposal.

<sup>[1]</sup> The department may adjust contract bid prices that, in the engineer's judgement, do not represent the fair value of the work deleted or proposed.

#### 108.11 Liquidated Damages

*Replace paragraphs two and three with the following effective with the December 2017 letting:*

- (2) This deducted sum is not a penalty but is a fixed, agreed, liquidated damage due the department from the contractor for the added cost of engineering and supervision resulting from the contractor's failure to complete the work within the contract time.
- (3) Unless enhanced in the special provisions, the department will assess the following daily liquidated damages

LIQUIDATED DAMAGES			
ORIGINAL CONTRACT AMOUNT		DAILY CHARGE	
FROM MORE THAN	TO AND INCLUDING	CALENDAR DAY	WORKING DAY
\$0	\$250,000	\$850	\$1700
\$250,000	\$500,000	\$815	\$1630
\$500,000	\$1,000,000	\$1250	\$2500
\$1,000,000	\$2,000,000	\$1540	\$3080
\$2,000,000	—	\$2070	\$4140

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**203.3.2.2 Removal Operations**

*Replace the entire text with the following effective with the December 2017 letting:*

**203.3.2.2.1 General**

- (1) Except as specified below for closing culverts, remove the entire top slab of box culverts and the entire superstructure of other culverts and bridges designated for removal. Completely remove existing piles, cribs, or other timber construction within the limits of new embankments, or remove these structures to an elevation at least 2 feet below finished ground line. Remove sidewalls or substructure units in water to an elevation no higher than the elevation of the natural stream or lake bed, or, if grading the channel is required under the contract or the plans, to the proposed finished grade of the stream or lake bed. Remove sidewalls or substructure units not in water down to at least 2 feet below natural or finished ground line.
- (2) If extending or incorporating existing culverts and bridges in the new work, remove only those parts of the existing structure as necessary to provide a proper connection to the new work. Saw, chip, or trim the connecting edges to the required lines and grades without weakening or damaging the remaining part of the structure. During concrete removal, do not damage reinforcing bars left in place as dowels or ties incorporated into the new work.
- (3) Remove pipe culverts designated for salvage in a way that prevents damage to the culverts.
- (4) Dismantle steel structures or parts of steel structures designated for salvage in a way that avoids damage to the members. If the contract specifies removing the structure in a way that leaves it in a condition suitable for re-erection, matchmark members with durable white paint before dismantling. Mark pins, bolts, nuts, loose plates, etc., similarly to indicate their proper location. Paint pins, bolts, pinholes, and machined surfaces with a department-approved rust preventative. Securely wire loose parts to adjacent members, or label and pack them in boxes.
- (5) Remove timber structures or parts of timber structures designated for salvage in a way that prevents damage to the members.
- (6) If the engineer approves, the contractor may temporarily use materials designated for salvage in falsework used to construct new work. Do not damage or reduce the value of those materials through temporary use.

**203.3.2.2.2 Deck Removal**

- (1) Protect the work as specified in 107.14 during deck removal. Minimize debris falling onto water surfaces and wetlands as the contract specifies in 107.18 or in the special provisions. Also, minimize debris falling on the ground and roadway.
- (2) Do not damage existing bar steel reinforcement, girders, or other components that will be incorporated in new work. Remove decks on prestressed concrete girders using a hydraulic shear or other engineer-approved equipment. Thoroughly clean, realign, and retie reinforcement as necessary.
- (3) After deck removal is complete, notify the engineer to request a damage survey. Point out damage to the engineer. Allow one business day for the engineer to complete the damage survey. If damage is identified, the department will determine if repairs or girder restoration will be allowed.
- (4) If the department allows girder restoration, have a professional engineer registered in the State of Wisconsin analyze the effect of the damage to the bridge, make recommendations, and prepare signed and sealed computations and structural details required to restore girders to their previous structural capacity. Submit the restoration proposal, including analysis and structural details, to the department and design engineer of record. The department will accept or reject the restoration proposal within 3 business days. Do not begin restoration work until the department allows in writing.
- (5) The engineer will not extend contract time to assess or remediate contractor caused damage.

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**203.5.1 General**

*Replace paragraph two with the following effective with the December 2017 letting:*

- (2) Payment is full compensation for breaking down and removing; costs associated with contractor-caused damage; required salvaging, storing, and disposing of materials; and, unless the contract specifies granular backfill, for backfilling.

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**415.2.3 Expansion Joint Filler**

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Furnish expansion joint filler conforming to AASHTO M153, AASHTO M213, or ASTM D8139 in lengths equal to the pavement lane width and of the thickness and height the plans show. Where dowel bars are required, use filler with factory-punched holes at the dowel bar locations and with a diameter not greater than 1/8 inch larger than the nominal dowel bar diameter.
- 

**415.3.20 Filling Joints**

*Replace paragraph two with the following effective with the December 2017 letting:*

- (2) Clean joints of laitance, curing compound, and other contaminants before filling. Saw construction joints at least 3/4 inches deep before filling. Sawing is not required for tooled joints in curb and gutter. Sandblast or waterblast exposed joint faces using multiple passes as required to clean joint surfaces of material that might prevent bonding. Blow clean and dry with oil-free compressed air immediately before filling.
- 

**415.5.1 General**

*Replace paragraph six with the following effective with the December 2017 letting:*

- (6) Payment for Concrete Pavement Joint Filling is full compensation for filling concrete pavement joints; filling adjacent curb and gutter joints; and for sawing.
- 

**440.3.4.2 Contractor Testing**

*Replace paragraph two with the following effective with the December 2017 letting:*

- (2) Coordinate with the engineer at least 24 hours before making profile runs for acceptance unless the engineer approves otherwise. The department may require testing to accommodate staged construction or if corrective action is required.
- 

**455.5.3 Tack Coat**

*Replace paragraph two with the following effective with the December 2017 letting:*

- (2) The department will adjust pay for Tack Coat, under the Nonconforming Tack Coat administrative item, for nonconforming material the engineer allows to remain in place at a maximum of 75 percent of the contract unit price.
- 

**460.2.7 HMA Mixture Design**

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to CMM 8-66.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
ESALs x 10 <sup>6</sup> (20 yr design life)	<2.0	2 - <8	>8	—
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821) (one face/2 face, % by count)	65/—	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	43	45	45
Sand Equivalency (AASHTO T176, min)	40	40	45	50
Gyratory Compaction				
Gyrations for N <sub>ini</sub>	6	7	8	8
Gyrations for N <sub>des</sub>	40	75	100	65
Gyrations for N <sub>max</sub>	60	115	160	160
Air Voids, %V <sub>a</sub> (%G <sub>mm</sub> N <sub>des</sub> )	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% G <sub>mm</sub> N <sub>ini</sub>	<= 91.5 <sup>[1]</sup>	<= 89.0 <sup>[1]</sup>	<= 89.0	—
% G <sub>mm</sub> N <sub>max</sub>	<= 98.0	<= 98.0	<= 98.0	—
Dust to Binder Ratio <sup>[2]</sup> (% passing 0.075/P <sub>be</sub> )	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 <sup>[4]</sup> [5]	65 - 75 <sup>[3]</sup> [5]	65 - 75 <sup>[3]</sup> [5]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283) <sup>[6]</sup> [7]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.75 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	—	—	—	0.30

<sup>[1]</sup> The percent maximum density at initial compaction is only a guideline.

<sup>[2]</sup> For a gradation that passes below the boundaries of the caution zone (ref. AASHTO M323), the dust to binder ratio limits are 0.6 - 1.6.

<sup>[3]</sup> For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

<sup>[4]</sup> For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

<sup>[5]</sup> For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

<sup>[6]</sup> WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

<sup>[7]</sup> Run TSR at asphalt content corresponding to 3.0% air void regressed design using distilled water for testing.

#### 460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Replace paragraph six with the following:

- (6) Conduct TSR tests during mixture production according to CMM 8-36.6.14. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5000 tons of production. Perform required increment testing in the first week of production of that increment. If production TSR values are below the limit specified in CMM 8-36.6.14, notify the engineer. The engineer and contractor will jointly determine a corrective action.

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**502.2.7 Preformed Joint Filler**

Replace paragraph one with the following effective with the December 2017 letting:

- (1) Use preformed joint filler conforming to AASHTO M153, AASHTO M213, or ASTM D8139.
- 

**502.3.7.8 Floors**

Replace paragraph fourteen with the following effective with the December 2017 letting:

- (14) Unless specified otherwise, transversely tine finish the floors of structures with approach pavements designed for speeds of 40 mph or greater as specified in 415.3.8.3, except make the tining 1/8 inch in depth and do not perform tining within 12 inches of gutters. The contractor may apply a broom finish, described below, instead of the artificial turf drag finish required before tining. The contractor may perform tining manually, if it obtains a finish satisfactory to the engineer. Perform tining within 20 degrees of the centerline of bearing of the substructure units on bridge decks having skew angles of 20 degrees or greater.
- 

**614.2.1 General**

Add the following as paragraph ten effective with the December 2017 letting:

- (10) Furnish guardrail reflectors from the department's APL.
- 

**614.3.2.1 Installing Posts**

Add the following as paragraph five effective with the December 2017 letting:

- (5) Provide post-mounted reflectors every 100 feet with one at the beginning and end of each run and a minimum of three reflectors per run.
- 

**614.5 Payment**

Replace paragraph four with the following effective with the December 2017 letting:

- (4) Payment for the Steel Thrie Beam, Steel Plate Beam Guard, Guardrail Stiffened, MGS Guardrail, Short Radius, and various transition bid items is full compensation for providing guardrail and transitions including post-mounted reflectors; for repairing damaged zinc coatings; and for excavating, backfilling, and disposing of surplus material.
- 

**641.2.9 Overhead Sign Supports**

Replace paragraph three with the following effective with the December 2017 letting:

- (3) Provide steel pole shafts, mast arms or trusses, and luminaire arms zinc coated according to ASTM A123. The contractor may provide either straight or tapered pole and arm shafts unless the plans specify otherwise. Provide bolts and other hardware conforming to 641.2.2.
- 

**642.2.2.1 General**

Replace the entire text with the following effective with the December 2017 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.
- (2) Provide long distance telephone service via a land line for exclusive department use that has the following:
- Two programmable touch-tone phones, one of which is cordless. Ensure that phone operations will not interfere with other telecommunications equipment.
  - Voice mail service or an answering machine.
- (3) Provide high-speed internet service for exclusive department use via cable or DSL connection with a modem/router and capable of supporting cloud enabled file sharing, voice over internet protocol (VoIP), video conferencing, and web based applications. Ensure that system meets the following:
- Includes a wireless network for the field office.



- Can accommodate IPsec based VPN products.
  - Has a bandwidth range as follows:
    - Field office with 1-5 staff: A minimum connection speed of 5 Mbps download and 1 Mbps upload. If a cable or DSL option is not available the contractor may provide a personal hotspot using cell phone tethering or other device able to achieve the specified minimum speeds inside the field office.
    - Field office with 6 or more staff: A minimum connection speed of 10 Mbps + 1/2 Mbps per user download and 5 Mbps upload.
    - Projects over 500 million dollars: A minimum connection speed of 20 Mbps + 1/2 Mbps per user download and 10 Mbps upload. Coordinate network setup at the leased office with the WisDOT network team.
- (4) Provide and maintain a Windows 7 and Windows 10 compliant multi-function device with copy, print, and scan capabilities that can accommodate both 8 1/2" x 11" and 11" x 17" paper. Replenish paper, toner cartridges, and other supplies before fully expended. Ensure that department staff can connect to the device either directly or through the field office wireless network.
- (5) Equip with a drafting table with a drafter's stool. Except as specified in 642.2.2.4, provide 2 ergonomically correct office chairs in working condition with, at a minimum, the following:
1. Five-legged base with casters.
  2. Seat adjustable from 15 to 22 inches from the floor with a seamless waterfall, rounded, front edge.
  3. High backrest with no arms or adjustable arms.

#### 643.3.1 General

Replace paragraph one with the following effective with the December 2017 letting:

- (1) Provide and maintain traffic control devices located where the plans show or engineer directs to maintain a safe work zone throughout the contract duration. Relocate as required to accommodate changing work operations. When not in use, place devices away from traffic outside of paved and gravel shoulder surfaces. Where there is barrier on the shoulder, the contractor may place devices not in use on the shoulder as close as possible to the barrier and delineated with drums. Lay signs and supports flat on the grade with uprights oriented parallel to and downstream from traffic. Do not stack devices or equipment. Promptly remove temporary devices from within the project limits as follows:
- That will not be used within 14 consecutive calendar days.
  - Within 5 business days of substantial completion unless the engineer allows otherwise.

#### 645.2.2.2 Geotextile, Type SAS (Subgrade Aggregate Separation)

Replace paragraph one with the following effective with the December 2017 letting:

- (1) Furnish fabric conforming to the following physical properties:

TEST	METHOD	VALUE <sup>[1]</sup>
Minimum grab tensile strength	ASTM D4632	170 lb
Minimum puncture strength	ASTM D6241	350 lb
Maximum apparent opening size	ASTM D4751	No. 70
Minimum permittivity	ASTM D4491	0.35 s <sup>-1</sup>

<sup>[1]</sup> All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

#### 645.2.2.4 Geotextile, Type DF (Drainage Filtration)

Replace paragraph one with the following effective with the December 2017 letting:

- (1) Furnish fabric conforming with the physical requirements of either schedule A, schedule B, or schedule C as the contract specifies.

SCHEDULE A TEST	METHOD	VALUE <sup>[1]</sup>
Minimum grab tensile strength	ASTM D4632	110 lb
Minimum puncture strength	ASTM D6241	200 lb
Minimum apparent breaking elongation	ASTM D4632	30%

Maximum apparent opening size	ASTM D4751	300 $\mu\text{m}$
Minimum permittivity	ASTM D4491	0.70 $\text{s}^{-1}$
SCHEDULE B TEST	METHOD	VALUE <sup>[1]</sup>
Minimum grab tensile strength	ASTM D4632	180 lb
Minimum puncture strength	ASTM D6241	350 lb
Minimum apparent breaking elongation	ASTM D4632	30%
Maximum apparent opening size	ASTM D4751	300 $\mu\text{m}$
Minimum permittivity	ASTM D4491	1.35 $\text{s}^{-1}$
SCHEDULE C TEST	METHOD	VALUE <sup>[1]</sup>
Minimum grab tensile strength	ASTM D4632	180 lb
Minimum puncture strength	ASTM D6241	350 lb
Minimum apparent breaking elongation	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	600 $\mu\text{m}$
Minimum permittivity	ASTM D4491	1.00 $\text{s}^{-1}$

<sup>[1]</sup> All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

#### 645.2.2.6 Geotextile, Type R (Riprap)

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE <sup>[1]</sup>
Minimum grab tensile strength	ASTM D4632	205 lb
Minimum puncture strength	ASTM D6241	400 lb
Minimum apparent breaking elongation	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.12 $\text{s}^{-1}$

<sup>[1]</sup> All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

#### 645.2.2.7 Geotextile, Type HR (Heavy Riprap)

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE <sup>[1]</sup>
Minimum grab tensile strength, lb	ASTM D4632	305 lb
Minimum puncture strength, lb	ASTM D6241	500 lb
Minimum apparent breaking elongation, %	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.40, $\text{s}^{-1}$

<sup>[1]</sup> All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

#### 645.2.2.8 Geotextile, Type C (Modified SAS)

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE <sup>[1]</sup>
Grab tensile strength, lb	ASTM D4632	205 lb
Puncture strength, lb	ASTM D6241	350 lb
Maximum apparent opening size	ASTM D4751	No. 50
Minimum permittivity	ASTM D4491	0.12 $\text{s}^{-1}$

<sup>[1]</sup> All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

### 646.3.1.1 General Marking

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Prepare the surface and apply marking as the manufacturer specifies. Provide manufacturer specifications as the engineer requests. Do not mark over a marking product with less adherence or over chipped or peeled marking. Do not remove polymer overlay materials in areas receiving pavement marking. Use only epoxy pavement marking where the contract requires marking placed on polymer overlays.

*Replace paragraph five with the following effective with the December 2017 letting:*

- (5) After the marking can sustain exposure to traffic, re-apply clear protective surface treatment conforming to 502.2.11 where removed from structures during marking surface preparation. Seal exposed concrete including grooves for tape. Cover marking during resealing with a system that will not degrade the marking's retroreflectivity when removed. Uncover marking before opening to traffic.

### 701.3 Contractor Testing

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Also perform other tests as necessary to control production and construction processes, and additional testing enumerated in the contractor's quality control plan or that the engineer directs. Use test methods as follows:

**TABLE 701-2 TESTING STANDARDS**

TEST	TEST STANDARD
Washed P 200 analysis	AASHTO T11 <sup>[1]</sup>
Sieve analysis of fine and coarse aggregate	AASHTO T27 <sup>[1]</sup>
Aggregate moisture	AASHTO T255 <sup>[1]</sup>
Sampling freshly mixed concrete	AASHTO R60
Air content of fresh concrete	AASHTO T152 <sup>[2]</sup>
Air void system of fresh concrete	AASHTO Provisional Standard TP118
Concrete slump	AASHTO T119 <sup>[2]</sup>
Concrete temperature	ASTM C1064
Concrete compressive strength	AASHTO T22
Making and curing concrete cylinders	AASHTO T23
Standard moist curing for concrete cylinders	AASHTO M201

<sup>[1]</sup> As modified in CMM 8-60.

<sup>[2]</sup> As modified in CMM 8-70.

### 715.2.3.1 Pavements

*Add the following as paragraph six effective with the December 2017 letting:*

- (6) For new lab-qualified mixes, test the air void system of the proposed concrete mix conforming to AASHTO provisional standard TP 118. Include the SAM number as a part of the mix design submittal.

### 715.3.1.1 General

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) Provide slump, air content, concrete temperature and compressive strength test results as specified in 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each subplot. Cast three cylinders for strength evaluation. For pavement concrete, also test the air void system conforming to AASHTO provisional standard TP118 at least once per lot and enter the SAM number in the MRS for information only.

**715.3.1.3 Department Verification Testing**

*Replace paragraph one with the following effective with the December 2017 letting:*

- (1) The department will perform verification testing as specified in 701.4.2 with additional testing as required to obtain at least 1 verification test per lot for air content, slump, temperature, and compressive strength.

## Errata

Make the following corrections to the standard specifications:

### 106.3.3.1 General

Correct errata by changing "acceptance" to "approval".

- (1) For manufactured products or assemblies, the department may base approval on a product certification or require both a product certification and production plant certification.

### 205.3.1 General

Correct errata by replacing paragraphs three and four with the following to reflect current practice to incorporate suitable materials.

- (3) Replace unsuitable material with satisfactory material. Trim and finish the roadway. Maintain the work done under 205 in a finished condition until acceptance.

### 521.2 Materials

Correct errata by deleting bullet three and including aluminum coated pipe in bullet one.

- (1) Furnish corrugated steel pipe and steel apron end walls as follows:
  - Corrugated steel culvert pipe, steel apron endwalls, aluminum coated corrugated steel culvert pipe, and other components conforming to AASHTO M36.
  - Polymer coated corrugated steel culvert pipe and pipe arch fabricated from zinc coated sheet steel conforming to AASHTO M218. Before fabrication, coat the sheets on both sides with polymer protective coating grade 250/250 according to AASHTO M246. Fabricate the pipe according to AASHTO M245.

### 614.3.2.2 Installing Rail

Correct errata for splice location and allow punching or drilling holes and slots.

- (1) Install rail with lap splices in the direction of traffic. Ensure that the number and dimensions of holes and bolts conforms to the plan details for new splices. Place the round head of bolts on the traffic side.
- (2) Cut rails to length by shearing or sawing; do not use cutting torches. Drill or punch bolt holes and slots; ensure that they are burr free. After installation, cut anchor bolts that project more than one inch from the nut to 1/2 inch from the nut; deburr the threaded end of cut bolts.

### 618.1 Description

Correct errata by deleting designated detours from the scope of Maintenance and Repair of Haul Roads.

- (1) This section describes maintaining, repairing, and restoring all public roads, streets, drainage facilities, and other components used for hauling by contractor, subcontractor, or supplier to support work for a department contract to its pre-haul condition. Public roads and streets shall be limited to those not a part of the State Trunk Highway System and from now on called haul roads.

### 646.3.1.2 Liquid Marking

Correct errata by changing "epoxy overlays" to "polymer overlays".

- (5) Apply liquid marking and glass beads across the line at or exceeding the following:

LIQUID MARKING	PAVEMENT TYPE	THICKNESS (mils)	BEAD APPLICATION (pounds per gallon)
Paint	all	16	8-10
Epoxy	SMA, seal coats, and polymer overlays	25	25
Epoxy	all other	20	22.5

### ADDITIONAL SPECIAL PROVISION 7

- A. Reporting 1<sup>st</sup> 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](mailto: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:

<http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf>

## **ADDITIONAL SPECIAL PROVISION 9**

### **Electronic Certified Payroll Submittal**

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>

(2) Ensure that all tiers of subcontractors, including all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at [paul.ndon@dot.wi.gov](mailto: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:

<http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

### ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

### II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under



this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## **2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.



(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and trainees**

##### **a. Apprentices (programs of the USDOL).**

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### **b. Trainees (programs of the USDOL).**

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

## **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

## **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.



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

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

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

### **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

## **Non-discrimination Provisions**

**During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:**

**1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

**2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

**3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

**4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

**5. Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the contractor under the contract until the contractor complies; and/or
- b. Cancelling, terminating, or suspending a contract, in whole or in part.

**6. Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:**

**Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE  
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

**Goals for Minority Participation for Each Trade:**

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

**Goals for female participation for each trade: 6.9%**

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director  
Office of Federal Contract Compliance Programs  
Ruess Federal Plaza  
310 W. Wisconsin Ave., Suite 1115  
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.



**APRIL 2013**

**ADDITIONAL FEDERAL-AID PROVISIONS**

**NOTICE TO ALL BIDDERS**

To report bid rigging activities call:

**1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

**Effective August 2015 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.

<http://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf>

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

<http://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc>

## Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses*. “Use of United States-flag vessels:”

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.”

(b) *Contractor and Subcontractor Clauses*. “Use of United States-flag vessels: The contractor agrees—”

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

**WISCONSIN DEPARTMENT OF TRANSPORTATION  
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT**

**SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS  
FOR PROJECTS WITH FEDERAL AID**

**I. PREVAILING WAGE RATES**

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

**II. COVERAGE OF TRUCK DRIVERS**

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. [https://www.dol.gov/whd/FOH/FOH\\_Ch15.pdf](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>

<http://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: WI170010 12/22/2017 WI10

Superseded General Decision Number: WI20160010

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 \$10.20 for calendar year 2017 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 \$10.20 (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 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	02/10/2017
3	02/24/2017
4	03/17/2017
5	03/31/2017
6	04/21/2017
7	04/28/2017
8	06/02/2017
9	06/23/2017
10	07/14/2017
11	07/21/2017
12	07/28/2017
13	08/11/2017
14	08/25/2017
15	09/08/2017
16	09/22/2017
17	10/06/2017
18	12/22/2017

BRWI0001-002 06/01/2016

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.84	20.95

BRWI0002-002 06/01/2016

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.04	19.70

BRWI0002-005 06/01/2016

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
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CEMENT MASON/CONCRETE FINISHER...	\$ 35.07	20.51
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BRWI0003-002 06/01/2016		
BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 32.22	20.57
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BRWI0004-002 06/01/2016		
KENOSHA, RACINE, AND WALWORTH COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 36.59	21.49
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BRWI0006-002 06/01/2016		
ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 33.04	19.75
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BRWI0007-002 06/01/2016		
GREEN, LAFAYETTE, AND ROCK COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 33.53	20.95
-----		
BRWI0008-002 06/01/2016		
MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 36.98	20.62
-----		
BRWI0011-002 06/01/2016		
CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 32.22	20.57
-----		
BRWI0019-002 06/01/2016		
BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 31.98	20.81
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BRWI0034-002 06/01/2015		
COLUMBIA AND SAUK COUNTIES		
	Rates	Fringes
BRICKLAYER.....	\$ 32.86	17.22
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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, TREMPLEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER.....	\$ 33.56	18.00
MILLWRIGHT.....	\$ 35.08	18.35
PILEDRIIVER.....	\$ 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
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CARP0361-004 05/01/2016		

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 34.57	18.16
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CARP2337-001 06/01/2016		

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIIVERMAN		
Zone A.....	\$ 31.03	22.69
Zone B.....	\$ 31.03	22.69
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\* ELEC0014-002 12/01/2017

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPLEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 33.21	19.75
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ELEC0014-007 06/05/2017		



## REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 25.81	14.01
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).		

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ELEC0127-002 06/01/2017

## KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 38.50	30%+10.57

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ELEC0158-002 06/05/2017

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausaukee and area South thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:.....	\$ 31.48	19.18

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ELEC0159-003 06/05/2017

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
Electricians:.....	\$ 37.75	20.96

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ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over \$180,000.....	\$ 32.38	18.63
Electrical contracts under \$180,000.....	\$ 30.18	18.42

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ELEC0242-005 06/04/2017

## DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 35.90	25.64

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ELEC0388-002 05/30/2016

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:.....	\$ 30.69	26.00% +10.05

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ELEC0430-002 06/01/2017

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 37.32	21.07

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ELEC0494-005 06/01/2017

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 37.51	24.42

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ELEC0494-006 06/01/2017

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 32.06	21.88

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ELEC0494-013 06/01/2015

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.....	\$ 16.47	14.84
Technician.....	\$ 26.00	17.70

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillon, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2017

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:.....	\$ 31.15	18.22

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ELEC0890-003 06/01/2017

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,  
 RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 33.25	19.34
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ELEC0953-001 07/01/2015		

	Rates	Fringes
Line Construction:		
(1) Lineman.....	\$ 42.14	32% + 5.00
(2) Heavy Equipment Operator.....	\$ 40.03	32% + 5.00
(3) Equipment Operator.....	\$ 33.71	32% + 5.00
(4) Heavy Groundman Driver..	\$ 26.78	14.11
(5) Light Groundman Driver..	\$ 24.86	13.45
(6) Groundsman.....	\$ 23.18	32% + 5.00
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ENGI0139-005 06/05/2017		

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 39.27	22.05
Group 2.....	\$ 38.77	22.05
Group 3.....	\$ 38.27	22.05
Group 4.....	\$ 38.01	22.05
Group 5.....	\$ 37.72	22.05
Group 6.....	\$ 31.82	22.05

#### HAZARDOUS WASTE PREMIUMS:

EPA Level "A" protection - \$3.00 per hour  
 EPA Level "B" protection - \$2.00 per hour  
 EPA Level "C" protection - \$1.00 per hour

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader;

joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

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IRON0008-002 06/01/2017

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 31.24	26.97
Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.		

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IRON0008-003 06/01/2017

KENOSHA, MILWAUKEE, OZAUCKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 33.19	26.97
Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.		

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IRON0383-001 06/01/2017

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.....	\$ 34.50	23.82

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IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 36.29	30.77

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IRON0512-008 05/01/2017

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 36.50	26.45

IRON0512-021 05/01/2017

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,  
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 32.04	26.45

LABO0113-002 06/05/2017

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 26.80	21.34
Group 2.....	\$ 26.95	21.34
Group 3.....	\$ 27.15	21.34
Group 4.....	\$ 27.30	21.34
Group 5.....	\$ 27.45	21.34
Group 6.....	\$ 23.29	21.34

LABORERS CLASSIFICATIONS

- GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;  
Demolition and Wrecking Laborer; Guard Rail, Fence, and  
Bridge Builder; Landscaper; Multiplate Culvert Assembler;  
Stone Handler; Bituminous Worker (Shoveler, Loader, and  
Utility Man); Batch Truck Dumper or Cement Handler;  
Bituminous Worker (Dumper, Ironer, Smoother, and Tamper);  
Concrete Handler
- GROUP 2: Air Tool Operator; Joint Sawyer and Filler  
(Pavement); Vibrator or Tamper Operator (Mechanical Hand  
Operated); Chain Saw Operator; Demolition Burning Torch  
Laborer
- GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk, and Pavement); Strike Off Man
- GROUP 4: Line and Grade Specialist
- GROUP 5: Blaster and Powderman
- GROUP 6: Flagperson; traffic control person

LABO0113-003 06/05/2017

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 26.05	21.34
Group 2.....	\$ 26.15	21.34
Group 3.....	\$ 26.20	21.34
Group 4.....	\$ 26.40	21.34
Group 5.....	\$ 26.25	21.34
Group 6.....	\$ 23.14	21.34

LABORERS CLASSIFICATIONS

- GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;  
Demolition and Wrecking Laborer; Guard Rail, Fence, and  
Bridge Builder; Landscaper; Multiplate Culvert Assembler;  
Stone Handler; Bituminous Worker (Shoveler, Loader, and  
Utility Man); Batch Truck Dumper or Cement Handler;  
Bituminous Worker (Dumper, Ironer, Smoother, and Tamper);  
Concrete Handler
- GROUP 2: Air Tool Operator; Joint Sawyer and Filler  
(Pavement); Vibrator or Tamper Operator (Mechanical Hand  
Operated);
- GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk, and Pavement); Strike Off Man
- GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

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LABO0113-011 06/05/2017

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 25.86	21.34
Group 2.....	\$ 26.01	21.34
Group 3.....	\$ 26.21	21.34
Group 4.....	\$ 26.18	21.34
Group 5.....	\$ 26.51	21.34
Group 6.....	\$ 23.00	21.34

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

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LABO0140-002 06/05/2017

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPLEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 30.71	16.79
Group 2.....	\$ 30.81	16.79
Group 3.....	\$ 30.86	16.79
Group 4.....	\$ 31.06	16.79
Group 5.....	\$ 30.91	16.79
Group 6.....	\$ 27.34	16.79

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand

Operated); Chain Saw Operator, Demolition Burning Torch  
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

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LAB00464-003 06/05/2017

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 30.99	16.79
Group 2.....	\$ 31.09	16.79
Group 3.....	\$ 31.14	16.79
Group 4.....	\$ 31.34	16.79
Group 5.....	\$ 31.19	16.79
Group 6.....	\$ 27.34	16.79

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;  
Demolition and Wrecking Laborer; Guard Rail, Fence, and  
Bridge Builder; Landscaper; Multiplate Culvert Assembler;  
Stone Handler; Bituminous Worker (Shoveler, Loader, and  
Utility Man); Batch Truck Dumper or Cement Handler;  
Bituminous Worker (Dumper, Ironer, Smoother, and Tamper);  
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler  
(Pavement); Vibrator or Tamper Operator (Mechanical Hand  
Operated); Chain Saw Operator; Demolition Burning Torch  
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

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\* 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

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PAIN0108-002 06/01/2017

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller.....	\$ 33.74	18.95
Spray & Sandblast.....	\$ 34.74	18.95

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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

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PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEALEAU, AND  
VERNON COUNTIES

	Rates	Fringes
PAINTER.....	\$ 22.03	12.45

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PAIN0781-002 06/01/2017

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 30.60	22.80
Brush.....	\$ 30.25	22.80
Spray & Sandblast.....	\$ 31.00	22.80

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PAIN0802-002 06/01/2017

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,  
ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 28.25	17.72

PREMIUM PAY:  
    Structural Steel, Spray, Bridges =   \$1.00 additional per  
    hour.

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PAIN0802-003 06/01/2017

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.....	\$ 24.89	12.05

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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

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PAIN1011-002 06/01/2017

FLORENCE COUNTY

	Rates	Fringes
Painters:.....	\$ 24.86	12.23

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PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1.....	\$ 39.46	17.17
Area 2 (BAC).....	\$ 35.07	19.75



Area 3.....	\$ 35.61	19.40
Area 4.....	\$ 34.70	20.51
Area 5.....	\$ 36.27	18.73
Area 6.....	\$ 32.02	22.99

#### AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

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TEAM0039-001 06/01/2017

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 27.40	20.48
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic.....	\$ 27.55	20.48
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WELL DRILLER.....	\$ 16.52	3.70
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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](http://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)).

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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.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the

Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

**March 2017**

**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.



## Proposal Schedule of Items

Page 1 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	3.000 STA	_____.	_____.
0004	201.0120 Clearing	85.000 ID	_____.	_____.
0006	201.0205 Grubbing	3.000 STA	_____.	_____.
0008	201.0220 Grubbing	85.000 ID	_____.	_____.
0010	204.0100 Removing Pavement	43,415.000 SY	_____.	_____.
0012	204.0120 Removing Asphaltic Surface Milling	1,286.000 SY	_____.	_____.
0014	204.0150 Removing Curb & Gutter	1,881.000 LF	_____.	_____.
0016	204.0155 Removing Concrete Sidewalk	8,542.000 SY	_____.	_____.
0018	204.0195 Removing Concrete Bases	3.000 EACH	_____.	_____.
0020	204.0210 Removing Manholes	9.000 EACH	_____.	_____.
0022	204.0215 Removing Catch Basins	5.000 EACH	_____.	_____.
0024	204.0220 Removing Inlets	114.000 EACH	_____.	_____.
0026	204.0245 Removing Storm Sewer (size) 01. 10-Inch	338.000 LF	_____.	_____.
0028	204.0245 Removing Storm Sewer (size) 02. 12-Inch	684.000 LF	_____.	_____.
0030	204.0245 Removing Storm Sewer (size) 03. 15-Inch	287.000 LF	_____.	_____.
0032	204.0245 Removing Storm Sewer (size) 04. 18-Inch	178.000 LF	_____.	_____.



## Proposal Schedule of Items

Page 2 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	204.0245 Removing Storm Sewer (size) 05. 21-Inch	37.000 LF	_____.	_____.
0036	204.0291.S Abandoning Sewer Main Street	2.700 CY	_____.	_____.
0038	204.9060.S Removing (item description) 01. Lighting Units	67.000 EACH	_____.	_____.
0040	204.9060.S Removing (item description) 02. Trolley Poles	25.000 EACH	_____.	_____.
0042	204.9060.S Removing (item description) 03. Lighting Control Cabinet	2.000 EACH	_____.	_____.
0044	204.9060.S Removing (item description) 04. Wood Poles	1.000 EACH	_____.	_____.
0046	204.9090.S Removing (item description) 01. Trolley Tracks	10,190.000 LF	_____.	_____.
0048	204.9090.S Removing (item description) 02. Aerial Cable	660.000 LF	_____.	_____.
0050	204.9105.S Removing (item description) 01. Traffic Signals at Hamilton Street & Main Street	LS	LUMP SUM	_____.
0052	204.9105.S Removing (item description) 02. Traffic Signals at Douglas Avenue & Marquette Street	LS	LUMP SUM	_____.
0054	204.9105.S Removing (item description) 03. Traffic Signals at Douglas Avenue & High Street	LS	LUMP SUM	_____.
0056	204.9105.S Removing (item description) 04. Traffic Signals at Douglas Avenue & Yout Street	LS	LUMP SUM	_____.
0058	205.0100 Excavation Common	32,986.000 CY	_____.	_____.



## Proposal Schedule of Items

Page 3 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	1,133.000 TON	_____.	_____.
0062	209.0200.S Backfill Controlled Low Strength	1.000 CY	_____.	_____.
0064	213.0100 Finishing Roadway (project) 01. 2350-00-70	1.000 EACH	_____.	_____.
0066	305.0120 Base Aggregate Dense 1 1/4-Inch	18,452.000 TON	_____.	_____.
0068	311.0110 Breaker Run	16,450.000 TON	_____.	_____.
0070	320.0355 Concrete Base HES 9-Inch	16.000 SY	_____.	_____.
0072	415.0080 Concrete Pavement 8-Inch	34,278.000 SY	_____.	_____.
0074	415.0210 Concrete Pavement Gaps	25.000 EACH	_____.	_____.
0076	415.1080 Concrete Pavement HES 8-Inch	3,808.000 SY	_____.	_____.
0078	415.4100 Concrete Pavement Joint Filling	38,086.000 SY	_____.	_____.
0080	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.	_____.
0082	416.0260 Concrete Driveway HES 6-Inch	2,745.000 SY	_____.	_____.
0084	416.0610 Drilled Tie Bars	102.000 EACH	_____.	_____.
0086	416.0620 Drilled Dowel Bars	916.000 EACH	_____.	_____.
0088	440.4410 Incentive IRI Ride	2,418.000 DOL	1.00000	2,418.00
0090	450.4000 HMA Cold Weather Paving	21.000 TON	_____.	_____.



## Proposal Schedule of Items

Page 4 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0092	455.0605 Tack Coat	64.000 GAL	_____.	_____.
0094	460.2000 Incentive Density HMA Pavement	100.000 DOL	1.00000	100.00
0096	460.5224 HMA Pavement 4 LT 58-28 S	148.000 TON	_____.	_____.
0098	465.0120 Asphaltic Surface Driveways and Field Entrances	175.000 TON	_____.	_____.
0100	465.0125 Asphaltic Surface Temporary	28.000 TON	_____.	_____.
0102	520.8000 Concrete Collars for Pipe	2.000 EACH	_____.	_____.
0104	601.0110 Concrete Curb Type D	20.000 LF	_____.	_____.
0106	601.0405 Concrete Curb & Gutter 18-Inch Type A	3,941.000 LF	_____.	_____.
0108	601.0409 Concrete Curb & Gutter 30-Inch Type A	11,523.000 LF	_____.	_____.
0110	601.0413 Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type G	33.000 LF	_____.	_____.
0112	601.0600 Concrete Curb Pedestrian	198.000 LF	_____.	_____.
0114	602.0405 Concrete Sidewalk 4-Inch	73,049.000 SF	_____.	_____.
0116	602.0505 Curb Ramp Detectable Warning Field Yellow	1,518.000 SF	_____.	_____.
0118	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	2,353.000 LF	_____.	_____.
0120	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	234.000 LF	_____.	_____.





## Proposal Schedule of Items

Page 5 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0122	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	310.000 LF	_____.	_____.
0124	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	175.000 LF	_____.	_____.
0126	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	580.000 LF	_____.	_____.
0128	608.6006 Storm Sewer Pipe Composite 6-Inch	37.000 LF	_____.	_____.
0130	608.6008 Storm Sewer Pipe Composite 8-Inch	4.000 LF	_____.	_____.
0132	611.0420 Reconstructing Manholes	7.000 EACH	_____.	_____.
0134	611.0530 Manhole Covers Type J	29.000 EACH	_____.	_____.
0136	611.0624 Inlet Covers Type H	30.000 EACH	_____.	_____.
0138	611.0639 Inlet Covers Type H-S	53.000 EACH	_____.	_____.
0140	611.0666 Inlet Covers Type Z	6.000 EACH	_____.	_____.
0142	611.2003 Manholes 3-FT Diameter	6.000 EACH	_____.	_____.
0144	611.2004 Manholes 4-FT Diameter	11.000 EACH	_____.	_____.
0146	611.2005 Manholes 5-FT Diameter	2.000 EACH	_____.	_____.
0148	611.2006 Manholes 6-FT Diameter	1.000 EACH	_____.	_____.
0150	611.2008 Manholes 8-FT Diameter	2.000 EACH	_____.	_____.
0152	611.3004 Inlets 4-FT Diameter	10.000 EACH	_____.	_____.



## Proposal Schedule of Items

Page 6 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0154	611.3230 Inlets 2x3-FT	69.000 EACH	_____.	_____.
0156	611.8115 Adjusting Inlet Covers	1.000 EACH	_____.	_____.
0158	619.1000 Mobilization	1.000 EACH	_____.	_____.
0160	620.0300 Concrete Median Sloped Nose	80.000 SF	_____.	_____.
0162	624.0100 Water	185.000 MGAL	_____.	_____.
0164	625.0100 Topsoil	3,101.000 SY	_____.	_____.
0166	627.0200 Mulching	40.000 SY	_____.	_____.
0168	628.1104 Erosion Bales	30.000 EACH	_____.	_____.
0170	628.1504 Silt Fence	200.000 LF	_____.	_____.
0172	628.1520 Silt Fence Maintenance	200.000 LF	_____.	_____.
0174	628.1905 Mobilizations Erosion Control	4.000 EACH	_____.	_____.
0176	628.1910 Mobilizations Emergency Erosion Control	8.000 EACH	_____.	_____.
0178	628.2006 Erosion Mat Urban Class I Type A	20.000 SY	_____.	_____.
0180	628.7005 Inlet Protection Type A	90.000 EACH	_____.	_____.
0182	628.7010 Inlet Protection Type B	20.000 EACH	_____.	_____.
0184	628.7015 Inlet Protection Type C	127.000 EACH	_____.	_____.
0186	628.7020 Inlet Protection Type D	45.000 EACH	_____.	_____.



## Proposal Schedule of Items

Page 7 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0188	629.0210 Fertilizer Type B	195.000 CWT	_____.	_____.
0190	630.0200 Seeding Temporary	5.000 LB	_____.	_____.
0192	631.0300 Sod Water	69.000 MGAL	_____.	_____.
0194	631.1000 Sod Lawn	3,101.000 SY	_____.	_____.
0196	632.0101 Trees (species) (size) (root) 01. Elm Princeton American B&B 2.5" Cal	3.000 EACH	_____.	_____.
0198	632.0101 Trees (species) (size) (root) 02. Elm Fontier B&B 2.5" Cal	2.000 EACH	_____.	_____.
0200	632.0101 Trees (species) (size) (root) 03. Hackberry Chicagoland B&B 2.5" Cal	1.000 EACH	_____.	_____.
0202	632.0101 Trees (species) (size) (root) 04. Honeylocust Shademaster B&B 2.5" Cal	3.000 EACH	_____.	_____.
0204	632.0101 Trees (species) (size) (root) 05. Maple Norwegian Sunset Shantung Hybrid B&B 2.5" Cal	11.000 EACH	_____.	_____.
0206	632.0101 Trees (species) (size) (root) 06. Oak Swamp White B&B 2.5" Cal	3.000 EACH	_____.	_____.
0208	632.0101 Trees (species) (size) (root) 07. Lilac China Snow Peking B&B Clump 8" - 10" Ht	2.000 EACH	_____.	_____.
0210	632.0201 Shrubs (species) (size) (root) 01. Juniper Iowa B&B 6' Ht	45.000 EACH	_____.	_____.
0212	632.9101 Landscape Planting Surveillance and Care Cycles	24.000 EACH	_____.	_____.
0214	634.0618 Posts Wood 4x6-Inch X 18-FT	8.000 EACH	_____.	_____.



## Proposal Schedule of Items

Page 8 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0216	634.0622 Posts Wood 4x6-Inch X 22-FT	2.000 EACH	_____.	_____.
0218	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	87.000 EACH	_____.	_____.
0220	637.1220 Signs Type I Reflective SH	35.000 SF	_____.	_____.
0222	637.2210 Signs Type II Reflective H	1,013.340 SF	_____.	_____.
0224	637.2215 Signs Type II Reflective H Folding	113.960 SF	_____.	_____.
0226	637.2230 Signs Type II Reflective F	22.250 SF	_____.	_____.
0228	638.2102 Moving Signs Type II	20.000 EACH	_____.	_____.
0230	638.2602 Removing Signs Type II	102.000 EACH	_____.	_____.
0232	638.3000 Removing Small Sign Supports	33.000 EACH	_____.	_____.
0234	641.8100 Overhead Sign Support (structure) 01. S-51-608	LS	LUMP SUM	_____.
0236	641.8100 Overhead Sign Support (structure) 02. S-51-609	LS	LUMP SUM	_____.
0238	643.0300 Traffic Control Drums	18,893.000 DAY	_____.	_____.
0240	643.0410 Traffic Control Barricades Type II	7,767.000 DAY	_____.	_____.
0242	643.0420 Traffic Control Barricades Type III	22,807.000 DAY	_____.	_____.
0244	643.0705 Traffic Control Warning Lights Type A	45,614.000 DAY	_____.	_____.
0246	643.0715 Traffic Control Warning Lights Type C	2,440.000 DAY	_____.	_____.



## Proposal Schedule of Items

Page 9 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0248	643.0900 Traffic Control Signs	58,510.000 DAY	_____.	_____.
0250	643.0920 Traffic Control Covering Signs Type II	5.000 EACH	_____.	_____.
0252	643.1050 Traffic Control Signs PCMS	21.000 DAY	_____.	_____.
0254	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0256	644.1430.S Temporary Pedestrian Surface Plate	1,600.000 SF	_____.	_____.
0258	644.1601.S Temporary Curb Ramp	40.000 EACH	_____.	_____.
0260	644.1616.S Temporary Pedestrian Safety Fence	3,000.000 LF	_____.	_____.
0262	645.0120 Geotextile Type HR	50.000 SY	_____.	_____.
0264	646.1020 Marking Line Epoxy 4-Inch	23,667.000 LF	_____.	_____.
0266	646.3020 Marking Line Epoxy 8-Inch	1,506.000 LF	_____.	_____.
0268	646.5020 Marking Arrow Epoxy	50.000 EACH	_____.	_____.
0270	646.5120 Marking Word Epoxy	7.000 EACH	_____.	_____.
0272	646.5220 Marking Symbol Epoxy	36.000 EACH	_____.	_____.
0274	646.6120 Marking Stop Line Epoxy 18-Inch	647.000 LF	_____.	_____.
0276	646.7120 Marking Diagonal Epoxy 12-Inch	254.000 LF	_____.	_____.
0278	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	5,532.000 LF	_____.	_____.



## Proposal Schedule of Items

Page 10 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0280	646.9000 Marking Removal Line 4-Inch	170.000 LF	_____.	_____.
0282	649.0105 Temporary Marking Line Paint 4-Inch	4,588.000 LF	_____.	_____.
0284	649.0150 Temporary Marking Line Removable Tape 4-Inch	7,935.000 LF	_____.	_____.
0286	649.0250 Temporary Marking Line Removable Tape 8-Inch	170.000 LF	_____.	_____.
0288	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	22.000 LF	_____.	_____.
0290	650.4000 Construction Staking Storm Sewer	102.000 EACH	_____.	_____.
0292	650.4500 Construction Staking Subgrade	8,508.000 LF	_____.	_____.
0294	650.5500 Construction Staking Curb Gutter and Curb & Gutter	15,740.000 LF	_____.	_____.
0296	650.7000 Construction Staking Concrete Pavement	8,508.000 LF	_____.	_____.
0298	650.8500 Construction Staking Electrical Installations (project) 01. 2350-00-70	LS	LUMP SUM	_____.
0300	650.9000 Construction Staking Curb Ramps	126.000 EACH	_____.	_____.
0302	650.9910 Construction Staking Supplemental Control (project) 01. 2350-00-70	LS	LUMP SUM	_____.
0304	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	14,432.000 LF	_____.	_____.
0306	652.0240 Conduit Rigid Nonmetallic Schedule 40 4-Inch	1,880.000 LF	_____.	_____.



## Proposal Schedule of Items

Page 11 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0308	652.0605 Conduit Special 2-Inch	447.000 LF	_____.	_____.
0310	652.0625 Conduit Special 4-Inch	172.000 LF	_____.	_____.
0312	652.0800 Conduit Loop Detector	1,128.000 LF	_____.	_____.
0314	653.0135 Pull Boxes Steel 24x36-Inch	6.000 EACH	_____.	_____.
0316	653.0140 Pull Boxes Steel 24x42-Inch	53.000 EACH	_____.	_____.
0318	653.0905 Removing Pull Boxes	6.000 EACH	_____.	_____.
0320	654.0101 Concrete Bases Type 1	23.000 EACH	_____.	_____.
0322	654.0102 Concrete Bases Type 2	23.000 EACH	_____.	_____.
0324	654.0105 Concrete Bases Type 5	67.000 EACH	_____.	_____.
0326	654.0217 Concrete Control Cabinet Bases Type 9 Special	4.000 EACH	_____.	_____.
0328	655.0230 Cable Traffic Signal 5-14 AWG	1,956.000 LF	_____.	_____.
0330	655.0240 Cable Traffic Signal 7-14 AWG	1,602.000 LF	_____.	_____.
0332	655.0260 Cable Traffic Signal 12-14 AWG	5,138.000 LF	_____.	_____.
0334	655.0270 Cable Traffic Signal 15-14 AWG	777.000 LF	_____.	_____.
0336	655.0320 Cable Type UF 2-10 AWG Grounded	2,328.000 LF	_____.	_____.
0338	655.0515 Electrical Wire Traffic Signals 10 AWG	5,523.000 LF	_____.	_____.



## Proposal Schedule of Items

Page 12 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0340	655.0610 Electrical Wire Lighting 12 AWG	8,982.000 LF	_____.	_____.
0342	655.0630 Electrical Wire Lighting 4 AWG	49,393.000 LF	_____.	_____.
0344	655.0700 Loop Detector Lead In Cable	3,053.000 LF	_____.	_____.
0346	655.0800 Loop Detector Wire	3,614.000 LF	_____.	_____.
0348	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. Hamilton Street & Main Street	LS	LUMP SUM	_____.
0350	656.0200 Electrical Service Meter Breaker Pedestal (location) 02. Douglas Avenue & Marquette Street	LS	LUMP SUM	_____.
0352	656.0200 Electrical Service Meter Breaker Pedestal (location) 03. Douglas Avenue & High Street	LS	LUMP SUM	_____.
0354	656.0200 Electrical Service Meter Breaker Pedestal (location) 04. Douglas Avenue & Yout Street	LS	LUMP SUM	_____.
0356	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 01. Cabinet DB	LS	LUMP SUM	_____.
0358	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 02. Cabinet DC	LS	LUMP SUM	_____.
0360	657.0255 Transformer Bases Breakaway 11 1/2- Inch Bolt Circle	54.000 EACH	_____.	_____.
0362	657.0322 Poles Type 5-Aluminum	54.000 EACH	_____.	_____.
0364	657.0610 Luminaire Arms Single Member 4 1/2- Inch Clamp 6-FT	54.000 EACH	_____.	_____.





## Proposal Schedule of Items

Page 13 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0366	658.0173 Traffic Signal Face 3S 12-Inch	46.000 EACH	_____.	_____.
0368	658.0175 Traffic Signal Face 5S 12-Inch	6.000 EACH	_____.	_____.
0370	658.0416 Pedestrian Signal Face 16-Inch	40.000 EACH	_____.	_____.
0372	658.1133 Programmable Traffic Signal Face 3S 12-Inch	9.000 EACH	_____.	_____.
0374	658.5069 Signal Mounting Hardware (location) 01. Hamilton Street & Main Street	LS	LUMP SUM	_____.
0376	658.5069 Signal Mounting Hardware (location) 02. Douglas Avenue & Marquette Street	LS	LUMP SUM	_____.
0378	658.5069 Signal Mounting Hardware (location) 03. Douglas Avenue & High Street	LS	LUMP SUM	_____.
0380	658.5069 Signal Mounting Hardware (location) 04. Douglas Avenue & Yout Street	LS	LUMP SUM	_____.
0382	670.0100 Field System Integrator	LS	LUMP SUM	_____.
0384	670.0200 ITS Documentation	LS	LUMP SUM	_____.
0386	673.0105 Communication Vault Type 1	5.000 EACH	_____.	_____.
0388	678.0200 Fiber Optic Splice Enclosure	4.000 EACH	_____.	_____.
0390	678.0300 Fiber Optic Splice	166.000 EACH	_____.	_____.
0392	678.0500 Communication System Testing	LS	LUMP SUM	_____.
0394	690.0150 Sawing Asphalt	2,738.000 LF	_____.	_____.



## Proposal Schedule of Items

Page 14 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0396	690.0250 Sawing Concrete	10,396.000 LF	_____.	_____.
0398	715.0415 Incentive Strength Concrete Pavement	11,425.000 DOL	1.00000	11,425.00
0400	999.1500.S Crack and Damage Survey	LS	LUMP SUM	_____.
0402	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	4,000.000 HRS	5.00000	20,000.00
0404	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	4,500.000 HRS	5.00000	22,500.00
0406	SPV.0035 Special 01. Backfill for Plant Beds - 18-Inch Depth	162.000 CY	_____.	_____.
0408	SPV.0060 Special 01. Field Facilities Office Space	1.000 EACH	_____.	_____.
0410	SPV.0060 Special 02. Adjusting Sanitary Manholes	35.000 EACH	_____.	_____.
0412	SPV.0060 Special 03. Reconstructing Sanitary Manholes	1.000 EACH	_____.	_____.
0414	SPV.0060 Special 04. Adjusting Water Manholes	3.000 EACH	_____.	_____.
0416	SPV.0060 Special 05. Drainage Grate	1.000 EACH	_____.	_____.
0418	SPV.0060 Special 06. Abandon Existing Vault	3.000 EACH	_____.	_____.
0420	SPV.0060 Special 07. Moving Wheel Stops	16.000 EACH	_____.	_____.
0422	SPV.0060 Special 22. Temporary Relocation of Lighting Control Cabinet	1.000 EACH	_____.	_____.
0424	SPV.0060 Special 24. Decorative Lighting Units	13.000 EACH	_____.	_____.



## Proposal Schedule of Items

Page 15 of 18

Proposal ID: 20180213009 Project(s): 2350-00-70

Federal ID(s): WISC 2018087

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0426	SPV.0060 Special 25. Type 1 LED Luminaires	27.000 EACH	_____.	_____.
0428	SPV.0060 Special 26. Type 2 LED Luminaires	27.000 EACH	_____.	_____.
0430	SPV.0060 Special 27. Replace Pole Fusing	20.000 EACH	_____.	_____.
0432	SPV.0060 Special 28. Lighting Control Cabinets	2.000 EACH	_____.	_____.
0434	SPV.0060 Special 29. Wood Poles	1.000 EACH	_____.	_____.
0436	SPV.0060 Special 40. Traffic Signal Controller & Cabinet	4.000 EACH	_____.	_____.
0438	SPV.0060 Special 41. Pedestrian Push Buttons	40.000 EACH	_____.	_____.
0440	SPV.0060 Special 42. Microwave Detection Sensor	1.000 EACH	_____.	_____.
0442	SPV.0060 Special 43. Pre-terminated Patch Panel with 6-Ports	4.000 EACH	_____.	_____.
0444	SPV.0060 Special 44. IP Ethernet Switch with Single Mode Fiber Ports	4.000 EACH	_____.	_____.
0446	SPV.0060 Special 45. IP Video Encoder Single Port	4.000 EACH	_____.	_____.
0448	SPV.0060 Special 46. Signal Pole Decorative Arms and LED Luminaires	21.000 EACH	_____.	_____.
0450	SPV.0060 Special 47. Pedestal Bases Black	23.000 EACH	_____.	_____.
0452	SPV.0060 Special 48. Transformer Bases Breakaway 11 1/2-Inch Bolt Circle Black	23.000 EACH	_____.	_____.
0454	SPV.0060 Special 49. Poles Type 2 Black	2.000 EACH	_____.	_____.



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Page 16 of 18

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0456	SPV.0060 Special 50. Poles Type 3 Black	21.000 EACH	_____.	_____.
0458	SPV.0060 Special 51. Traffic Signal Standards Aluminum 13-Foot Black	18.000 EACH	_____.	_____.
0460	SPV.0060 Special 52. Traffic Signal Standards Aluminum 15-Foot Black	2.000 EACH	_____.	_____.
0462	SPV.0060 Special 53. Traffic Signal Standards Aluminum 10-Foot Black	3.000 EACH	_____.	_____.
0464	SPV.0060 Special 54. Trombone Arms 15-FT Black	6.000 EACH	_____.	_____.
0466	SPV.0060 Special 55. Trombone Arms 20-FT Black	6.000 EACH	_____.	_____.
0468	SPV.0060 Special 56. Trombone Arms 25-FT Black	2.000 EACH	_____.	_____.
0470	SPV.0060 Special 60. Coneflower Magnus Purple 1 Gal CG	39.000 EACH	_____.	_____.
0472	SPV.0060 Special 61. Daylily Rosy Returns, 1 Gal CG	143.000 EACH	_____.	_____.
0474	SPV.0060 Special 62. Daylily Strawberry Candy 1 Gal CG	47.000 EACH	_____.	_____.
0476	SPV.0060 Special 63. Goldenrod Fireworks 1 Gal CG	81.000 EACH	_____.	_____.
0478	SPV.0060 Special 64. New England Aster Purple Dome 1 Gal CG	164.000 EACH	_____.	_____.
0480	SPV.0060 Special 65. Feather Reed Grass 1 Gal CG	90.000 EACH	_____.	_____.
0482	SPV.0060 Special 66. Little Bluestem Carousel 4" Pot CG	32.000 EACH	_____.	_____.



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Page 17 of 18

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0484	SPV.0060 Special 67. Daffodil Juanita Bulb	180.000 EACH	_____.	_____.
0486	SPV.0060 Special 68. Bench	4.000 EACH	_____.	_____.
0488	SPV.0060 Special 69. Decorative Plant Pot - Type 1	3.000 EACH	_____.	_____.
0490	SPV.0060 Special 70. Decorative Plant Pot - Type 2	2.000 EACH	_____.	_____.
0492	SPV.0060 Special 71. Move Existing Bench	2.000 EACH	_____.	_____.
0494	SPV.0060 Special 72. Move Existing Trash Receptacle	19.000 EACH	_____.	_____.
0496	SPV.0060 Special 73. Salvage Existing Decorative Plant Pot	3.000 EACH	_____.	_____.
0498	SPV.0090 Special 01. Construction Staking Sidewalk	95.000 LF	_____.	_____.
0500	SPV.0090 Special 02. Aerial Cable Aluminum Triplex 2 AWG	540.000 LF	_____.	_____.
0502	SPV.0090 Special 03. Aerial Cable Aluminum Quadplex 2 AWG	120.000 LF	_____.	_____.
0504	SPV.0090 Special 05. Concrete Curb Type D Modified	36.000 LF	_____.	_____.
0506	SPV.0090 Special 10. Aluminum Edger	181.000 LF	_____.	_____.
0508	SPV.0090 Special 40. Fiber Optic Tracer Cable 12 AWG	2,047.000 LF	_____.	_____.
0510	SPV.0090 Special 41. Dielectric Fiber Optic Cable 24-Count	3,177.000 LF	_____.	_____.



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Page 18 of 18

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0512	SPV.0105 Special 01. Locate and Replace Existing Property Monuments	LS	LUMP SUM	_____.
0514	SPV.0105 Special 40. Video Detection System, Hamilton Street & Main Street	LS	LUMP SUM	_____.
0516	SPV.0105 Special 41. Video Detection System, Douglas Avenue & Marquette Street	LS	LUMP SUM	_____.
0518	SPV.0105 Special 42. Video Detection System, Douglas Avenue & High Street	LS	LUMP SUM	_____.
0520	SPV.0105 Special 43. Video Detection System, Douglas Avenue & Yout Street	LS	LUMP SUM	_____.
0522	SPV.0105 Special 44. Temporary Traffic Signal Modifications, Main Street & Goold Street	LS	LUMP SUM	_____.
0524	SPV.0165 Special 01. Stamped Colored Concrete Paving, 4-Inch	5,904.000 SF	_____.	_____.
0526	SPV.0165 Special 02. Colored Concrete Paving, 4-Inch	10,337.000 SF	_____.	_____.
0528	SPV.0165 Special 03. Colored Concrete Paving, 8-Inch	9,890.000 SF	_____.	_____.
0530	SPV.0180 Special 10. Shredded Hardwood Bark Mulch	324.000 SY	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

**PLEASE ATTACH SCHEDULE OF ITEMS HERE**