#### **HIGHWAY WORK PROPOSAL**

Proposal Number:

Wisconsin Department of Transportation DT1502 10/2010 s.66.29(7) Wis. Stats.

COUNTY STATE PROJECT ID FEDERAL PROJECT ID PROJECT DESCRIPTION HIGHWAY

Clark 7040-01-73 WISC 2016 500 C Loyal, South and Main Streets
Helm Street to Flm Drive

STH 98

Helm Street to Elm Drive

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

Proposal Guaranty Required, \$ 75,000.00	Attach Proposal Guaranty on back of this PAGE.
Payable to: Wisconsin Department of Transportation	
Bid Submittal Due	Firm Name, Address, City, State, Zip Code
Date: December 13, 2016	CAMDLE
Time (Local Time): 9:00 AM	SAMPLE
Contract Completion Time	NOT FOR BIDDING PURPOSES
Two Hundred Forty-Four (244) Calendar Days	NOT FOR BIDDING FOR OSES
Assigned Disadvantaged Business Enterprise Goal	
10%	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)  Notary Seal	(Bidder Title)	

#### For Department Use Only

Type of Work

Grading, select crush subbase, base aggregate dense, concrete pavement, HMA pavement, concrete sidewalk, permanent signing, pavement marking, street lighting, storm sewer, sanitary sewer, and water main.

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

- 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: <a href="http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx">http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx</a>

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<sup>TM</sup> on-line bidding exchange at <a href="http://www.bidx.com/after 5:00 P.M.">http://www.bidx.com/after 5:00 P.M.</a> 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<sup>TM</sup> on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

  <a href="http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx">http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx</a>

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.

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

#### **B Submitting Electronic Bids**

#### **B.1** On the Internet

- (1) Do the following before submitting the bid:
  - 1. Have a properly executed annual bid bond on file with the department.
  - 2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:
  - 1. Download the latest schedule of items reflecting all addenda from the Bid Express web site.
  - 2. Use Expedite<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 TM 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 Meb 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.
  - 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 Corpor	ate Seal)		
(Signature and Title)			
(Company Name)			
(Signature and Title)			
(Company Name)			
(Signature and Title)		(Name of Surety) (Affix Seal)	
(Company Name) (Signature of Attorney-in-Fact)			
(Signature and Title)			
NOTARY FO	OR PRINCIPAL	NOTARY FO	R SURETY
(I)	Date)	(Dat	te)
State of Wisconsin	)	State of Wisconsin	)
	) ss. County )		) ss. _County )
On the above date, this instrument named person(s).	was acknowledged before me by the	On the above date, this instrument w named person(s).	as acknowledged before me by the
(Signature, Notary Pu	ublic, State of Wisconsin)	(Signature, Notary Publ	ic, State of Wisconsin)
(Print or Type Name, Nota	ry Public, State of Wisconsin)	(Print or Type Name, Notary Public, State of Wisconsin)	
(Date Comn	nission Expires)	(Date Commis	sion Expires)

Notary Seal 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

(Date)

Time Period Valid (	From/To)
Name of Surety	
Name of Contracto	r
Certificate Holder	Wisconsin Department of Transportation
	y that an annual bid bond issued by the above-named Surety is currently on file with the partment of Transportation.
	is issued as a matter of information and conveys no rights upon the certificate holder mend, 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)

#### March 2010

#### LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	<b>Estimated Value</b>

#### **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**

Articl	e Description	Page #
1.	General.	3
2.	Scope of Work.	
3.	Prosecution and Progress.	3
4.	Traffic.	
5.	Municipality Acceptance of Sanitary Sewer and Water Main Construction	6
6.	Holiday Work Restrictions.	
7.	Utilities	7
8.	Coordination with Business and Residents.	10
9.	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item	
	205.0501.S	
10.	QMP Base Aggregate.	17
11.	Removing Manholes.	25
12.	Removing Inlets.	25
13.	Railing Pipe, Item 513.2050.S.	25
14.	Pipe Grates, Item 611.9800.S.	26
15.	Removing Signs, Type II.	27
16.	Temporary Curb Ramp, Item 644.1601.S.	27
17.	Temporary Pedestrian Safety Fence, Item 644.1616.S.	
18.	Remove Existing Lighting Unit, Item SPV.0060.01.	29
19.	Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.02	30
20.	Decorative Street Light Unit – Furnish and Install, Item SPV.0060.03; Decorative	
	Street Light Unit – Furnish Only, Item SPV.0060.19	30
21.	Remove Existing Lighting Control Cabinet, Item SPV.0060.04	34
22.	Concrete Sediment Trap, Item SPV.0060.05	34
23.	Corporation Stop 1-Inch, Item, SPV.0060.12; Curb Stop and Box, 1-Inch, Item	
	SPV.0060.13; Copper Service, 1-Inch, Item SPV.0090.14	35
24.	Connection to Existing Sanitary Sewer, Item SPV.0060.14; Connection to	
	Existing Water Main, Item SPV.0060.15.	37
25.	Remove Valve Box, Item SPV.0060.16; Remove Hydrant, Item SPV.0060.17	38
26.	Removing Sanitary Sewer Manholes, Item SPV.0060.18.	39
27.	Storm Sewer Pipe PVC 4-Inch, Item SPV.0090.01	39
28.	Sanitary Sewer, 15-Inch, Item SPV.0090.02; Sanitary Sewer, 12-Inch, Item	
	SPV.0090.03; Sanitary Sewer, 10-Inch, Item SPV.0090.04; Sanitary Sewer, 8-	
	Inch, Item SPV.0090.05; Sanitary Sewer Lateral, 6-Inch, Item SPV.0090.06;	
	Tracer Wire Terminal Box, Item SPV.0060.06; Sanitary Sewer Televising, Item	
	SPV.0090.07.	40
29.	Water Main, 10-Inch, Item SPV.0090.08; Water Main, 8-Inch, Item SPV.0090.09;	
	Water Main, 6-Inch, Item SPV.0090.10; Fluorocarbon Gaskets and Polyethylene	
	Encasement of Water Main, 10-Inch, Item SPV.0090.11; Fluorocarbon Gaskets	
	and Polyethylene Encasement of Water Main. 8-Inch. Item SPV.0090.12:	

7040-01-73

	Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 6-Inch, Item	
	SPV.0090.13; Gate Valve, 10-Inch, Item SPV.0060.08; Gate Valve, 8-Inch, Item	
	SPV.0060.09; Gate Valve, 6-Inch, Item SPV.0060.10; Hydrant with 6-Inch Lead	
	and Valve, Item SPV.0060.11	50
30.	Concrete Curb and Gutter Cure and Seal Treatment Item SPV.0090.15	61
31.	Flashing Beacon, South Street / Main Street, Item SPV.0105.01; Main Street /	
	South Street SPV.0105.5; Main Street / Elm Drive, SPV.0105.06; Elm Drive /	
	Main Street, SPV.0105.07; CTH K / Elm Drive, SPV.0105.08	61
32.	Construction Staking Concrete Pavement Joint Layout, Item SPV.0105.02	62
33.	Project Concrete Crack Mitigation and Repair Special, Item SPV.0105.03	63
34.	Concrete Ramp, Item SPV.0105.04.	64
35.	Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP Pilot, Item	
	SPV.0165.01	64
36.	Temporary Pedestrian Hard Surface, Item SPV.0165.02.	76
37.	Concrete Pavement 7 1/2-Inch Special, Item SPV.0180.01.	77
38.	Sanitary Sewer Manhole, Item SPV.0200.01; Sanitary Sewer Manhole Outside	
	Drop, Item SPV.0200.02; Sanitary Sewer Manhole Frame and Cover and Interior	
	Seal, Item SPV.0060.07.	78

7040-01-73 2 of 82

#### SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for Project 7040-01-73, City of Loyal, South and Main Streets, Helm Street to Elm Drive, STH 98, Clark 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, 2017 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 (20160607)

## 2. Scope of Work.

The work under this contract shall consist of grading, select crush subbase, base aggregate dense, concrete pavement, HMA pavement, concrete sidewalk, storm sewer, sanitary sewer, water main, permanent signing, pavement marking 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 time frame for construction of the project within the 2017 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. 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.

7040-01-73 3 of 82

#### **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).

If additional construction activities beyond what was originally specified are required to complete the work, approval from the engineer, following coordination with WisDOT REC, is required prior to initiating these activities.

#### 4. Traffic.

STH 98 shall be closed to through traffic and shall utilize a three stage detour plan. The proposed Stage 1 detour route (traveling eastbound) is STH 98 to CTH K to CTH H to CTH Y to STH 98. The proposed Stage 2 detour route (traveling eastbound) is STH 73 to CTH H to CTH Y to STH 98. The proposed Stage 3 detour route (traveling eastbound) is STH 73 to CTH H to CTH K to STH98. The westbound detour will follow the reverse path of the eastbound detour for all stages.

Maintain access for local, business and emergency traffic at all times. Maintain reasonable access to all properties according to standard spec 104.6.4. When construction operations will temporarily restrict access to a property or change existing access to a property, coordinate with the owner or resident at least 48 hours prior to the work.

The project area includes commercial/retail properties that may require trucking into and out of the properties on a daily basis. Coordinate with adjacent and nearby commercial/retail properties to determine trucking schedules and access requirements.

Temporary pedestrian access shall be maintained for retail properties during construction. At a minimum contractor shall provide a 5 foot wide temporary sidewalk with temporary pedestrian safety fence 6 feet from store fronts on both sides of Main Street. Temporary sidewalk shall be a minimum of 4" of base aggregate dense 1 ½-inch with a temporary hard surface. Temporary pedestrian curb ramps are required at the intersections of Central Street, Mill Street, and Spring Street.

Coordinate with local Post Office to provide proper access for postal pick-ups and dropoffs during Stage 1. Notify Post Office of any temporary mailbox locations, if required, during the duration of project.

Local road traffic shall be maintained with a minimum base aggregate dense surface.

7040-01-73 4 of 82

Following are the construction stages:

#### Stage 1A

Construct the Main Street / Elm Drive intersection. This area includes the sediment trap (storm sewer outfall), and sanitary sewer work within the intersection.

#### Stage 1

Construct Main Street (STH 98) from Elm Drive to 100 feet north of the Main Street / South Street intersection. This area includes store front to store front section from Central Street to Spring Street.

During Stage 1 construction, east / west traffic crossing STH 98 shall be maintained at a minimum of one location at all times, utilizing the following intersections: Central Street, Mill Street, or Spring Street.

#### Stage 2

Construct the Main Street / South Street intersection.

#### Stage 3A

Construct South Street from the beginning of project to 50' east of Helm Street.

#### Stage 3

Construct South Street (STH 98) from Helm Street to Main Street.

During Stage 3 construction, north / south traffic crossing STH 98 shall be maintained at a minimum of one location at all times, utilizing the following intersections: Gwinn Street, Thomas Street, West Street, or Division Street.

Notify the engineer if there are any changes in the schedule, early completions, or cancellations of scheduled work.

#### **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
Full ramp closures	7 calendar days
Detours	7 calendar days

7040-01-73 5 of 82

Closure type without height, weight, or width restrictions (available width, all lanes in one direction >16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
System and service 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. 108-057 (20160607)

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. 108-057 (20150630)

# 5. Municipality Acceptance of Sanitary Sewer and Water Main Construction.

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

## 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 98 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 26, 2017 to 6:00 AM Tuesday, May 30, 2017 for Memorial Day;
- From noon Friday, June 30, 2017 to 6:00 AM Wednesday, July 5, 2017 for Independence Day;
- From noon Friday, September 1, 2017 to 6:00 AM Tuesday, September 5, 2017 for Labor Day.

Do not perform work on, nor haul materials of any kind along or across any portion of Main Street, and entirely clear the traveled way and shoulders of such portions of the roadway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following city event period:

• From noon Wednesday, August 23, 2017 to 6:00 AM Monday, August 28, 2017.

7040-01-73 6 of 82

#### 7. Utilities.

This contract comes under the provision of Administration Rule Trans 220. 107-065 (20080501)

Additional detailed information regarding the location of vacated, relocated, and/or removed utility facilities is available in the work plan provided by each utility company or on the permits issued to them. View these documents at the region WisDOT office during normal working hours. Anticipated date of completion for work scheduled prior to construction is December 31, 2016.

**Charter Communications – Telecommunication** has underground telecommunication facilities crossing South Street at Station 260+50. No conflict is anticipated at this location

Charter Communication also has overhead facilities throughout South Street on Xcel Energy's power poles. Charter Communication will relocate their facilities in accordance to Xcel Energy and Frontier Communications relocation plan.

**City of Loyal – Sewer** has underground sanitary continuous throughout the project along STH 98.

Reconstruct the City of Loyal sanitary system including sewer main, laterals, manholes and some removals, under the bid items in the contract as shown in the applicable plan sheets.

City of Loyal – Water Main has underground water main continuous throughout the project along STH 98.

Reconstruct the City of Loyal water main including water main, laterals, hydrants, valves and some removals, under the bid items in the contract as shown in the applicable plan sheets.

**Frontier Communications** – **Telecommunication** has power poles and overhead telecommunication facilities throughout South Street. Frontier Communications plans to relocate their facilities as follows:

- (1) Station 243+95 to Station 263+50 Move aerial lead 1 foot to the north
  - 6 of 16 poles to be moved by Xcel Energy
  - 10 of 16 poles to be moved by Frontier Communications
  - Poles that require more than 1 foot north shifts are as follows:
  - Station 246+25 RT Move pole 1 foot north and 3 feet west
  - Station 252+30 RT Move pole 1 foot north and 4 feet east
  - Station 256+75 RT Move pole 1 foot north and 1 foot west
  - Station 258+15 RT Move pole 1 foot north and 3 feet west
  - Station 261+50 RT Move pole 1 foot north and 3 feet west

7040-01-73 7 of 82

All underground cable is out of conflict and will remain in place

Frontier Communications plans to begin the aforementioned relocations in August 2016 and complete them prior to construction in a joint effort with Xcel Energy. Contact Frontier Communications, Cal Klade, 72 hours prior to excavating at Main Street / Central Street intersection. Cal Klade can be reached at (715) 847-1525 office, or (715) 573-2110 mobile

**Packerland Communications** – **Telecommunication** has underground telecommunication facilities along north side of South Street from approximate Station 240+00 to Station 251+75 Gwinn Street Intersection, and at the intersection of Main Street / Elm Drive. No Conflicts are anticipated.

Contact Packerland Communications, Randy Simms, 72 hours prior to construction of Elm Drive / Main Street intersection. Randy Simms can be reached at (906) 282-3802 mobile.

**We Energies – Gas** has underground gas facilities throughout South and Main Streets. We Energies plans to relocate their facilities as follows:

- Station 242+20 to Station 252+20 Gas main will be relocated to north side of street approximately 30° LT.
- All service crossings will be replaced.
- Crossing at Pope Street will be tied to this new gas main.
- Station 260+50 to Station 261+50 Gas main will be relocated to north side of street approximately 30° LT.
- Crossing at Division Street will be tied to this new gas main.
- Station 263+50 to Station 567+00 Gas main will relocated to north side of street approximately 30° LT.
  - New gas main will tie into gas main in alley.
- Station 381+10 to Station 387+70 Gas main will be relocated to east side of street approximately 33' RT.
- All service crossings will be replaced.
- Tie into existing gas main at SW corner of Main Street / Elm Drive intersection.
- Station 385+50 to Station 490+75 Gas main will be relocated to west side of street approximately 30' LT.
- All service crossings will be replaced.
- Tie into existing gas main approximately 195 feet north of West Elm Drive intersection.
- Replace gas main crossings at the following intersections:
- Gwinn Street
- Thomas Street
- West Street
- Division Street
- Central Street
- Madison Street
- Elm Drive

7040-01-73 8 of 82

We Energies plans to discontinue in place underground gas facilities throughout South and Main Streets. We Energies plans to discontinue their facilities as follows:

- Station 242+00 to Station 252+20 LT
- Crossing at Station 251+80
- Station 251+80 to 252+90 RT
- Station 255+00 to Station 256+90 LT
- Crossing at Station 255+00
- Crossing at Station 258+75
- Crossing at Station 261+50
- Station 263+50 to Station 567+00 LT
- Crossing at Station 366+30
- Station 381+25 to Station 387+50 RT
- Crossing at Station 381+25
- Crossing at Station 383+75
- Crossing at Station 386+25
- Station 387+50 to Station 490+25 LT

It is imperative that the highway contractor contact We Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. Contractor must call the We Energies 24 hour Dispatch lines to arrange for this verification.

We Energies Gas Dispatch, (800) 261-5325

We Energies plans to begin the aforementioned relocations in Fall 2016 and complete them prior to construction.

**Xcel Energy** – **Electric** has power poles and overhead electric facilities throughout South Street on the north side of the street. Xcel Energy plans to relocate their facilities as follows:

- Station 252+25 (NE intersection of Gwinn Street / South Street) Move pole 25' to east at approximate Station 252+50, 23' LT
- Station 255+50 (NE intersection of Thomas Street / South Street) Move pole 10' to east at approximate Station 255+60, 23' LT
- Station 258+25 (NW intersection of West Street / South Street) Move pole 10' to west at approximate Station 258+15, 25' LT
- Station 261+50 (NW intersection of Division Street / South Street) Move pole 10' to west at approximate Station 261+40, 24' LT
- Station 264+70 (NW intersection of Main Street / South Street) Move pole 10' to west at approximate Station 264+60, 24' LT

7040-01-73 9 of 82

Xcel Energy plans to begin the aforementioned relocations in August 2016 and complete them prior to construction.

#### 8. Coordination with Business 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 the contractor will arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The contractor 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 2 weeks prior notice to the engineer to allow for these notifications. Additional bi-weekly contractor / business owner meetings will be required while work is occurring on Main Street.

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

### **A Description**

#### A.1 General

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

Advanced Disposal Seven Mile Creek 8001 Olson Dr. Eau Claire, WI 54703 (715) 830-0284

Advance Disposal Cranberry Creek Landfill 2510 Engle Rd Wisconsin Rapids, WI 54495 (715) 421-3939

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.

This special provision also describes pumping and disposing of contaminated groundwater (if dewatering is necessary).

7040-01-73 10 of 82

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 100-299 of the Wisconsin Administrative Code, as supplemented herein. Perform all work necessary to control, handle, and dispose of groundwater and surface water, and all other water that may be encountered within contaminated areas, as required for performance of the work

#### A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations

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

Petroleum-contaminated soil and groundwater (if dewatering is necessary) is potentially present at the following locations:

- 1. Tribune Record Gleaner-Former gas station (318 N. Main Street), Site #5: Station 378+50 to Station 379+00, RT of reference line to construction limits.
- 2. Seeman Oil (310/333 N. Main Street) Site #6: Station 379+50 to Station 381+00, LT of reference line to construction limits and Station 380+00 to Station 381+25, RT of reference line to construction limits.
- 3. DC 66 Service (521 N. Main Street), Site #7: Station 387+50 to Station 388+25, LT of reference line to construction limits.

Contaminated soils and/or groundwater and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils and/or groundwater and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer and the environmental consultant. Contaminated soil and/or groundwater at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name: Nick Schaff

Address: WisDOT Eau Claire Office

718 W Clairemont Ave, Eau Claire, WI 54701

Phone: (715) 836-2068

E-mail: Nicholas.Schaff@dot.wi.gov

#### A.3 Coordination

Coordinate work under this Contract with the environmental consultant retained by the department:

Consultant: TRC Environmental Corporation

Contact: Mr. Dan Haak

Address: 708 Heartland Trail, Suite 3000, Madison, WI 53717

Phone: (608) 826-3628 Fax: (608) 826-3941

E-mail: dhaak@trcsolutions.com

7040-01-73 11 of 82

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.
- 5. Identifying contaminated groundwater to be pumped for treatment and disposal (if dewatering is necessary).

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.

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.

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. Do not transport contaminated soil or pump contaminated groundwater offsite without prior approval from the environmental consultant.

#### A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells, including lost or improperly abandoned wells, may be present within the construction limits. Notify the environmental consultant when groundwater monitoring wells are encountered. Protect all groundwater monitoring wells to maintain their integrity. If required by the environmental consultant, adjust wells that do not conflict with utilities, structures, curb and gutter, etc. to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant, or for wells that require abandonment, the abandonment or adjustment of the wells by others. The environmental consultant will provide maps indicating the locations of all known monitoring wells, if requested by the contractor.

7040-01-73 12 of 82

Coordinate with the environmental consultant to ensure that the environmental consultant is present to abandon and/or document the location of the groundwater monitoring well during excavation activities.

#### A.5 Excavation Management Plan Approval

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's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Nick Schaff with the department, at (715) 836-2068.

#### A.6 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

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.

Disposal of petroleum-contaminated soil at the bioremediation facility is subject to the facility's safety policies.

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

#### **C** Construction

Supplement standard spec 205.3 with the following:

The environmental consultant will periodically examine excavated soil during excavations in the areas of known petroleum or soil contamination within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

7040-01-73 13 of 82

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation or can be beneficially re-used on-site under highway pavements, behind retaining walls, or in back-slopes with 2-foot thick soil cover, including 4 inches of topsoil and grass cover. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material (PID readings less than 10 ppm and no observation of staining or petroleum odor) for reuse as fill within the construction limits, or
- Contaminated soil (significant petroleum odor, staining, and/or PID readings greater than 10 ppm) for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material according to NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

7040-01-73 14 of 82

Directly load and haul soils designated by the environmental consultant for off-site 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. Verify that the vehicles used to transport contaminated material are licensed for such activity according to applicable state and federal regulations.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer and the environmental consultant.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas.

Contaminated groundwater generated from dewatering activities within the contaminated areas may exceed the surface water discharge limits for petroleum compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Notify the environmental consultant prior to pumping contaminated groundwater.

The City of Greenwood Wastewater Treatment Plant will determine if disposal of groundwater generated from the contaminated areas can be discharged into the sanitary sewer. Contact the City of Greenwood Wastewater Treatment Plant at (715) 267-6225 prior to the discharge of contaminated groundwater to the sanitary sewer. The City of Greenwood may impose a sanitary sewer use fee and flow restrictions.

In lieu of disposal of groundwater generated from the contaminated areas in the sanitary sewer to the City of Greenwood Wastewater Treatment Plant, pump contaminated water that exceeds surface water discharge limits, as determined by environmental consultant, into temporary holding tanks provided by others or an alternative discharge point as determined by the environmental consultant, as necessary to complete construction. Allow contaminated water encountered, but not requiring removal as a standard course of construction, to remain in-place and do not manage according to this special provision.

The environmental consultant will coordinate approval of contaminated water hauling and disposal. Only pump contaminated groundwater if the environmental consultant is on-site.

7040-01-73 15 of 82

Discharging contaminated groundwater to any location other than that approved and provided by the environmental consultant, is at the contractor's cost. If the contractor chooses alternate discharge, at the contractor's cost, obtain DNR concurrence on any dewatering plans, and provide and operate any and all treatment and discharge equipment required.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming, ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

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. 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 statues, judiciary decisions, and regulations of the State of Wisconsin.

Cost for contaminated groundwater collection and disposal is incidental to the project.

#### **D** Measurement

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil and groundwater 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

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via bioremediation of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and for dewatering of soils prior to transport, if necessary.

7040-01-73 16 of 82

## 10. 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 under the Aggregate Detours, Salvaged Asphaltic Pavement Base, 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-rsrces/rdwy/default.aspx

## A.2 Contractor Testing for Small Quantities

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan 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:
  - 1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.

7040-01-73 17 of 82

2. Divide the aggregate into uniformly sized sublots for testing as follows:

Plan Quantity	Minimum Required Testing
$\leq$ 1500 tons	One test from production, load-out, or
	placement at the contractor's option <sup>[1]</sup>
$> 1500 \text{ tons and} \le 6000 \text{ tons}$	Two tests of the same type, either from
	production, load-out, or placement at the contractor's option <sup>[1]</sup>
	1
$>$ 6000 tons and $\leq$ 9000 tons	Three placement tests <sup>[2] [3]</sup>

- [1] If using production tests for acceptance, submit 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.
- [2] For 3-inch material, obtain samples at load-out.
- [3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.
- 3. No control charts are required. 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. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a sublot 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.

#### **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.

7040-01-73 18 of 82

- 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:
Aggregate Technician IPP	Aggregate Sampling <sup>[1]</sup>
Aggregate Sampling Technician	
Aggregate Assistant Certified Technician (ACT-AGG)	
Aggregate Technician IPP	Aggregate Gradation Testing,
Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Fractured Particle
	Testing, Aggregate Liquid
	Limit and Plasticity Index
	Testing

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

 $\frac{http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx}{labs.aspx}$ 

#### **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.

7040-01-73 19 of 82

#### **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 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. 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 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. 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 OV 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 tests, include only QC 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) Test gradation once per 3000 tons of material placed. 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 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.
- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

7040-01-73 20 of 82

- (4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (5) 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.
- (6) 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

- 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.

7040-01-73 21 of 82

#### **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 4 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 4 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:

7040-01-73 22 of 82

- 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. One non-random test on the first day of 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, the department will collect samples from the stockpile 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

7040-01-73 23 of 82

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.

7040-01-73 24 of 82

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price 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. 301-010 (20151210)

# 11. Removing Manholes.

This work shall be in accordance with the pertinent requirements of standard spec 204 and as provided here.

The City of Loyal would like ten removed manhole castings (frame and cover) in good condition for their future use. Contractor shall deliver ten manhole castings to the City of Loyal's compost site palletized for handling with a forklift. Contact Terry Weyer (Public Works Department) at (715) 255-8617 to coordinate a drop off time and to review and approve the condition of the castings.

The remaining manhole castings shall be disposed of by the contractor, per standard spec 204.

# 12. Removing Inlets.

This work shall be in accordance with the pertinent requirements of standard spec 204 and as provided here.

The City of Loyal would like ten removed inlet castings (frame and cover) in good condition for their future use. Contractor shall deliver ten curb inlet castings to the City of Loyal's compost site palletized for handling with a forklift. Contact Terry Weyer (Public Works Department) at (715) 255-8617 to coordinate a drop off time and to review and approve the condition of the castings.

The remaining curb inlet castings shall be disposed of by the contractor, per standard spec 204.

# 13. Railing Pipe, Item 513.2050.S.

## **A** Description

This special provision describes furnishing and installing a pipe railing system for pedestrians as shown on the plans, and according to the applicable provisions of standard spec 513 and as hereinafter provided.

# **B** (Vacant)

## **C** Construction

Weld the posts and rails together.

7040-01-73 25 of 82

## **D** Measurement

The department will measure Railing Pipe in length by the linear foot along the top rail, acceptably completed.

## E Payment

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

ITEM NUMBERDESCRIPTIONUNIT513.2050.SRailing PipeLF

Payment is full compensation for furnishing all materials; installing all materials; and painting.

513-005 (20030820)

# 14. Pipe Grates, Item 611.9800.S.

## **A Description**

This special provision describes furnishing and installing pipe grates on the ends of pipes as shown in the plans, and as hereinafter provided.

#### **B** Materials

Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel pipe conforming to the requirements of standard spec 506.2.3.6.

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

## **C** Construction

Repair pipes, rods, angles and brackets on which the galvanized coating has been damaged in accordance to the requirements of AASHTO M36M.

## **D** Measurement

The department will measure Pipe Grates in units of work, where one unit is one grate, completed and accepted.

## **E** Payment

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

ITEM NUMBERDESCRIPTIONUNIT611.9800.SPipe GratesEach

7040-01-73 26 of 82

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to pipes. 611-010 (20030820)

# 15. Removing Signs, Type II.

This work shall be according to the pertinent requirements of standard spec 638 and as provided here.

Type II aluminum signs are the department's property. Return aluminum signs to the Northwest Region sign shop palletized for handling with a forklift. Northwest Eau Claire Sign Shop Coordinator Steve Allard shall be notified at (715) 855-7671 at least three business days prior to delivery to coordinate shipment to be delivered to the Northwest Region Eau Claire Sign Shop at 5009 Hwy 53 S, Eau Claire, WI 54701.

# 16. 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.

7040-01-73 27 of 82

## E Payment

The department will pay for measured quantities at the contract unit price under the

following bid item:

ITEM NUMBERDESCRIPTIONUNIT644.1601.STemporary Curb RampEach

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

644-020 (20150630)

# 17. 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.

7040-01-73 28 of 82

## E Payment

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

ITEM NUMBERDESCRIPTIONUNIT644.1616.STemporary Pedestrian Safety FenceLF

Payment is full compensation for providing, maintaining, and removing the temporary pedestrian safety fence. 644-025 (20150630)

# 18. Remove Existing Lighting Unit, Item SPV.0060.01.

## **A Description**

This special provision describes removing existing street lighting units from the project as shown in the plans and as hereinafter provided.

## **B** (Vacant)

## **C** Construction

Disconnect and remove the complete lighting unit from the locations shown in the plans and/or as designated by the engineer.

Contact Xcel Energy to de-energize street lights prior to their disconnection. Carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. The street light unit shall be made available for Xcel Energy to salvage. Properly dispose of any equipment that is not salvaged.

Properly dispose of all related equipment.

This item includes coordination and incidentals necessary to remove or have removed by the City of Loyal: street signs and all accessories affixed to the lighting units.

## **D** Measurement

The department will measure Remove Existing Lighting Unit as each individual lighting unit, acceptably removed and disposed of.

## E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0060.01Remove Existing Lighting UnitEach

Payment is full compensation for removing and disposing of all existing lighting unit components.

7040-01-73 29 of 82

# 19. Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.02.

# **A Description**

This special provision describes furnishing and installing Pull Box Non-Conductive (size) shown on the plans.

## **B** Materials

Furnish pull boxes, frames, and lids made of non-conductive material. Pull boxes, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77.

## **C** Construction

Provide pull boxes, frames, and lids made of non-conductive materials. The contractor may extend Pull Box Non-Conductive (size) as the plan details show using the same material as the pull box. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under standard spec 205.3.12. Use covers stamped with "Street Lighting" for lighting pull boxes.

Provide one 24" length of #6 reinforcing steel to be driven vertically on the north side of the pull box.

#### **D** Measurement

The department will measure Pull Box Non-Conductive 24x42-Inch as each individual unit, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Pull Box Non-Conductive 24x42-Inch	<b>EACH</b>

Payment for Pull Bon Non-Conductive (size) is full compensation for providing and installing pull boxes, frames, lids, aggregate, fasteners, reinforcing steel; conduit extensions less than 10 feet long including fittings; and for furnishing all excavating, backfilling and disposing of surplus material. The department will pay separately for engineer-directed pull box drain duct under the Conduit Rigid Nonmetallic bid items as specified in standard spec 652.5.

# 20. Decorative Street Light Unit – Furnish and Install, Item SPV.0060.03; Decorative Street Light Unit – Furnish Only, Item SPV.0060.19.

# **A Description**

This special provision describes furnishing and installing decorative street lighting units at the locations shown in the plan.

7040-01-73 30 of 82

#### **B** Materials

## **B.1** Material Qualifications

Furnish a complete list of documentation according to standard spec 651.2 and the following requirements. Furnish the following list of documentation detailing the characteristics of the decorative light units:

- Engineer's verification showing the light pole and concrete foundation design criteria
- Graphical depiction showing verification of the light unit arrangement and all accessories (receptacles, banner, hand hole, etc.) are in the correct orientation.
- · Light pole color and finish sample.
- Paint finish durability information.
- · Illumination modeling results and luminaire test files (.ies format) for design.
- · Cut sheets, warranty information and parts list for all equipment.

The information required in the above list must be furnished to the engineer after letting. The engineer will not approve any materials prior to bid letting. Do not order materials until the engineer approves the list. Prepare one additional copy of all submittals to send to the City of Loyal.

# **B.2** Concrete Foundation (Furnish and Install Only)

Furnish concrete masonry, bar steel reinforcement, anchor rods, nuts, washers, conduit, grounding electrode and all incidental materials according to the pertinent provisions in standard spec 654.2.

The concrete foundation shall have an outer diameter of 1'-8", and be compatible with the dimensional and loading characteristics of the proposed decorative lighting unit. The engineer shall approve the concrete foundation design prior to installation.

## **B.3** Transformer Base

Furnish cast aluminum alloy transformer bases from the department's approved products list and meeting the design criteria specified in standard spec 657.2.2.1.2. Ensure that castings are true to pattern in form and dimensions and free from pouring faults, sponginess, cracks, sharp edges, blow holes, and other defects in positions affecting strength or service life. Furnish all bases with a manufacturer applied black anodized finish. Bases anodized after purchase from the manufacturer will not be accepted without approval from the engineer.

## **B.4** Pole

Furnish light poles as shown on the plans and as hereinafter provided. The light pole shall conform to the following requirements:

- Poles shall consist of aluminum composition of sufficient strength to accommodate the loading parameters as shown on the plans
- Poles shall have a tapered and fluted cross section with a decorative base section
- Poles shall have dimensional characteristics as shown on the plans
- Pole and complete assembly shall be anodized and finished with polyester powder coat black.

7040-01-73 31 of 82

Furnish galvanized L-type anchor rods

Pole shall consist of a decorative pole top fitter with finish to match the pole.

## **B.5** Luminaire

Furnish luminaires as shown on the plans and as hereinafter provided. The luminaire shall conform to the following requirements:

- Total wattage between 100-160
- Luminaire shall be traditional tear drop deep glass style with prismatic glass refractor/reflector; glass optic shall be approximately 17" diameter and 17" tall.
- All IES distributions are acceptable if the luminaire can meet all other requirements
- Luminaire shall provide illumination performance (10% tolerance allowed) as follows:
- 0.6 average foot-candles
- 4.0:1 average-minimum illumination ratio
- Luminaire shall provide luminance performance (10% tolerance allowed) as follows:
- $-0.6 \text{ cd/m}^2$
- 3.5:1 Ave/Min
- 6.0:1 Max/Min
- 0.4:1 veiling luminance ratio (25% tolerance allowed)
- Illumination results shall be based on the roadway section as shown in the plans; and the average spacing as shown in the plans
- Luminaire ratings shall include the following:
- B.U.G. (Backlight / Uplight / Glare) rating of 3-2-3 or better
- I.P. rating of 65 or greater
- All components U.L. listed for wet locations
- Luminaire shall feature the following accessories:
- Spike top finial
- Decorative Skirt
- Internal house side shield (furnish only)

## **B.6** Luminaire Mounting Bracket

Furnish aluminum luminaire mounting bracket with decorative fitters for luminaire support. Luminaire mounting bracket shall allow for weather tight wire-way from the pole to the luminaire. Arm finish shall be black in color to match the pole finish.

## **B.7** Pole Accessories

Receptacle and Cover: Furnish reinforced receptacle housing within the light pole, a weather resistant flush receptacle box and heavy duty while-in-use cover. Furnish a 20A/125V GFCI receptacle and wiring connections. While-in-use cover shall be metal fabrication and black in color to match the pole finish.

7040-01-73 32 of 82

<u>Banner Brackets:</u> Furnish light poles with reinforced integral banner brackets for accommodating bolt-on type banner arms. Furnish two 1½" diameter, 24-inch long cast aluminum banner brackets with ball end cap per pole. All exposed surfaces shall be black in color to match the pole finish.

<u>Flower Basket Hanger:</u> Furnish a reinforced integral flower basket hanger mounting section within the light pole and a single hanger rod. All materials shall be metal fabrication and black in color to match the pole finish.

<u>Flag Pole Bracket:</u> Furnish light poles with reinforced integral flag pole brackets for accommodate flag shafts of up to 1-inch diameter. All exposed surfaces shall be black in color to match the pole finish.

<u>Christmas Decoration Bracket:</u> Furnish mounting bracket designed to accommodate the city's existing equipment, as shown on the plans. Confirm design by furnishing example to the city for verification. All exposed surfaces shall be black in color to match the pole finish.

#### C Construction

Install Decorative Street Light unit according to the pertinent provisions of standard spec 657 and 659, the plans and as the manufacturer directs.

Electrical staking shall be approved by the engineer and the City of Loyal prior to concrete base installation.

## **C.1 Furnish Only**

Deliver materials as shipped complete with packaging and stabilizing intact to the City of Loyal public works facility. Contact the city a minimum of five business days prior to delivery to make arrangements.

## **D** Measurement

The department will measure Decorative Street Light Unit (Type) as each individual unit, acceptably completed.

# E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Decorative Street Light Unit – Furnish and Install	Each
SPV.0060.19	Decorative Street Light Unit – Furnish Only	Each

Payment is full compensation for furnishing all materials; and for installing a complete street lighting unit.

7040-01-73 33 of 82

# 21. Remove Existing Lighting Control Cabinet, Item SPV.0060.04.

## **A Description**

This special provision describes removing existing lighting control cabinets, meter housing and restoring the site to match the surroundings.

# **B** (Vacant)

#### **C** Construction

Contact the City of Loyal at least seven days prior to removing existing control cabinets.

Arrange with the utility for a disconnection of the existing electrical service lateral and removal of the meter housing.

Carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. The cabinet shall be made available for the city to salvage. Properly dispose of any equipment that is not salvaged.

Properly dispose of all related equipment.

## **D** Measurement

The department will measure Remove Existing Lighting Control by each individual unit, acceptably completed.

## **E** Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0060.04 Remove Existing Lighting Control Cabinet EACH

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

# 22. Concrete Sediment Trap, Item SPV.0060.05.

# **A Description**

This work will consist of final grading and placement of concrete, including reinforcement, in order to construct the concrete sediment trap in close conformity with the details provided in the plans. This work shall be done according to the pertinent requirements of the specifications for all work necessary to complete the construction of the Concrete Sediment Trap.

## **B** Materials

Refer to requirements of standard spec 501 and 505 for material specifications

# **C** Construction

Use construction methods conforming to standard spec 501.

7040-01-73 34 of 82

#### **D** Measurement

The department will measure Concrete Sediment Trap by each individual concrete sediment trap installed according to the contract and accepted by the engineer.

## E Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0060.05 Concrete Sediment Trap EACH

Payment is full compensation for furnishing all materials, including concrete masonry and reinforcement; for furnishing all final grading, disposal or surplus material; and for placing, finishing, protecting, and curing.

# 23. Corporation Stop 1-Inch, Item, SPV.0060.12; Curb Stop and Box, 1-Inch, Item SPV.0060.13; Copper Service, 1-Inch, Item SPV.0090.14.

# **A Description**

This item includes the furnishing and installation of water laterals including the corporation stops, pipe, and curb stops.

#### **B** References

(1) ASTM B88 – Seamless Copper Water Tube.

#### C Submittals

Submit manufacturer's data on pipe, corporation stops, curb stops and boxes.

## **D** Materials

- (1) Pipe: Copper pipe meeting requirements of ASTM B88, Type K.
- (2) <u>Corporation Stops:</u> Brass corporation stop with taper threaded inlet and conductive compression outlet. Mueller Ground Key Corporation Valve, H-15008 or equal.
- (3) <u>Curb Stops:</u> Brass curb stop with conductive compression type inlet and outlet, quarter turn check, and Minneapolis top; Mueller Mark II Oriseal H-15155 or equal.
- (4) <u>Boxes:</u> Cast iron extension type, Minneapolis pattern with stationary rod, 1-1/4" upper section and 7-foot length, pentagon nut; Mueller H-10300 or equal.

#### **E** Installation

- (1) Install service lateral with a minimum 7.0 feet of cover.
- (2) Locate the service taps at the 10:00 or 2:00 o'clock position on the circumference of the pipe. Place adjacent taps a minimum of 12 inches apart. Stagger taps around the circumference when more than one tap is made at the same location.
- (3) Prior to installation of corporation stop, wrap threads with two wraps of 3 mil Teflon tape.
- (4) Provide a horizontal half loop in the service pipe at the tap.

7040-01-73 35 of 82

# F Excavation and Backfilling

Excavation, bedding and backfilling shall be according to that specified for water main.

# **G** Separation

Water service laterals 2-Inch diameter and smaller shall have a minimum center-to-center horizontal separation of 30 inches from sewer laterals or mains. Separation may be less than 30 inches if the bottom of the water lateral is at least 12 inches (outside pipe to outside pipe) above the sewer lateral or main.

#### **H** Method of Measurement

The department will measure Corporation Stop, 1-Inch as each individual unit, acceptably completed.

The department will measure Curb Stop and Box, 1-Inch as each individual unit, acceptably completed.

The department will measure Copper Service, 1-Inch by length in linear feet along the center line of the pipe from the main to the connection point, acceptably completed.

# I Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Corporation Stop 1-Inch	Each
SPV.0060.13	Curb Stop and Box 1-Inch	Each
SPV.0090.14	Copper Service 1-Inch	LF

Corporation Stop, 1-Inch, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install corporation stops according to the specifications and Drawings.

Curb Stop and Box, 1-Inch, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install curb stops and boxes according to the specifications and Drawings.

Copper Service, 1-Inch, measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install the service pipe according to the specifications and Drawings including excavation, bedding, pipe and accessories, backfilling, compaction and disinfection.

7040-01-73 36 of 82

# 24. Connection to Existing Sanitary Sewer, Item SPV.0060.14; Connection to Existing Water Main, Item SPV.0060.15.

# **A Description**

This item includes the connection of new sanitary sewer and water main pipe to existing pipes. This item does not include connection of new sewer laterals to existing laterals. The connection of laterals is incidental to the lateral construction.

## **B** Sanitary Sewer Pipe Coupling

Pipe couplings shall be flexible PVC couplings with stainless steel clamps, Fernco or equal.

# C Water Main Pipe Coupling

Pipe couplings shall be cast iron or steel couplings consisting of a sleeve, flanges, resilient gaskets and corrosion resistant bolts; dresser, Smith-Blaire or equal.

# **D** Maintaining Sewer and Water Service

Sanitary sewer and water service shall be maintained at all times except for periods of relative short duration necessary to make connections. It shall be the contractor's responsibility to notify occupants of buildings, businesses, and the City of Loyal prior to the interruption of service.

## **E** Installation

The ends of existing pipes shall be cut square. Install the coupling according to the manufacturer's instructions.

## F Measurement

The department will measure Connection to Existing Sanitary Sewer and Connection to Existing Water Main as each individual unit, acceptably completed.

## **G** Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.14	Connection to Existing Sanitary Sewer	Each
SPV.0060.15	Connection to Existing Water Main	Each

Connection to Existing Sanitary Sewer and Connection to Existing Water Main, measured as provided above, will be paid for at the contract unit price per each, which price shall be payment in full for the connection of new sanitary sewer mains or water mains to existing pipes.

7040-01-73 37 of 82

# 25. Remove Valve Box, Item SPV.0060.16; Remove Hydrant, Item SPV.0060.17.

# **A Description**

This item includes the removal and disposal of valve boxes and fire hydrants.

## **B** (Vacant)

## **C** Construction

- (1) <u>Removal of Valve Boxes:</u> Valve boxes shall be excavated and removed from the site. Backfill according to that specified for water main construction.
- (2) <u>Removal of Hydrants:</u> Fire hydrants shall be excavated, disconnected from the existing water main, and removed from the site. Backfill according to that specified for water main construction.
- (3) <u>Disposal</u>: The removed materials, become the property of the contractor for disposal or recycling. Disposal shall be at a site that meets the state requirements for construction debris disposal.

## **D** Measurement

The department will measure Remove Valve Box by each individual unit removed, acceptably completed.

The department will measure Remove Hydrant by each individual unit removed, acceptably completed.

## E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0060.16Remove Valve BoxEachSPV.0060.17Remove HydrantEach

- (1) Remove Valve Box, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for removal and disposal according to this specification.
- (2) Remove Hydrant, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for removal and disposal according to this specification.

7040-01-73 38 of 82

# 26. Removing Sanitary Sewer Manholes, Item SPV.0060.18.

## **A Description**

This item includes the removal and disposal of existing sanitary manholes.

# **B** (Vacant)

## **C** Construction

- (1) <u>Removal of Sanitary Manholes</u>. Sanitary manholes shall be excavated, disconnected from the existing sewer main, and removed from the site. Backfill in accordance with that specified for sanitary sewer construction.
- (2) <u>Disposal</u>. The removed materials become the property of the contractor for disposal or recycling. Disposal shall be at a site that meets the state requirements for construction debris disposal.

#### **D** Measurement

The department will measure Removing Sanitary Sewer Manholes 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.0060.18 Removing Sanitary Sewer Manholes Each

Payment is full compensation for removal and disposal in accordance with this specification.

# 27. Storm Sewer Pipe PVC 4-Inch, Item SPV.0090.01.

## A Description

Excavate required trenches, lay or construct storm sewer pipe, then backfill the trenches and clean out as shown on the plans, as directed by the engineer, and as hereinafter provided.

## **B** Materials

Furnish SDR-35 polyvinyl chloride storm sewer pipe, fittings, couplings, and joint materials conforming to A.S.T.M. designation D3034.

## **C** Construction

Construct storm sewer pipe according to standard spec 608.3 with matching fittings, couplings, and joint material to A.S.T.M. designation D3034, or as directed by the engineer.

7040-01-73 39 of 82

## **D** Measurement

The department will measure Storm Sewer Pipe PVC (size) according to standard spec 608.4.1.

## E Payment

The department will pay for Storm Sewer Pipe PVC (size) at the contract unit price under the following bid item:

ITEM NUMBERDESCRIPTIONUNITSPV.0090.01Storm Sewer Pipe PVC 4-InchLF

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

28. Sanitary Sewer, 15-Inch, Item SPV.0090.02; Sanitary Sewer, 12-Inch, Item SPV.0090.03; Sanitary Sewer, 10-Inch, Item SPV.0090.04; Sanitary Sewer, 8-Inch, Item SPV.0090.05; Sanitary Sewer Lateral, 6-Inch, Item SPV.0090.06; Tracer Wire Terminal Box, Item SPV.0060.06; Sanitary Sewer Televising, Item SPV.0090.07.

# A Description

Work under this item includes the furnishing and installation of sanitary sewer pipe, sanitary sewer laterals and testing

## **B** References

- (1) ASTM C12 Installing Vitrified Clay Pipe Lines.
- (2) ASTM C828 Low Pressure Air Test of Vitrified Clay Pipe Lines (4 to 12-inch).
- (3) ASTM D698 Test Method for Moisture–Density Relations of Soils and Soil-Aggregate Mixtures Using 5.5–lb (2.49–kg) Rammer and a 12–in. (304.8 mm) Drop.
- (4) ASTM D1785 Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
- (5) ASTM D2321 Underground Installation of Flexible Thermoplastic Pipe
- (6) ASTM D2487 Classification of Soils for Engineering Purposes.
- (7) ASTM D2564 Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.
- (8) ASTM D2665 Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings.

7040-01-73 40 of 82

- (9) ASTM D2855 Recommended Practice for Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings.
- (8) ASTM D3034 Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe.
- (10) ASTM D3212 Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
- (11) ASTM F402 Safe Handling of Solvent Cements Used for Joining Thermoplastic Pipe and Fittings.
- (12) ASTM F679 Poly (Vinyl Chloride) (PVC) Large Diameter Plastic Gravity Sewer Pipe and Fittings.
- (13) ASTM F1417 Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air.

#### C Submittals

- (1) Submit manufacturer's product literature for pipe and accessories.
- (2) Submit televising reports.
- (3) Submit as-built measurements.

## **D** Quality Assurance

- (1) All pipes and fittings shall be new and unused. Each length of pipe shall be clearly marked with the manufacturer's name, the type of pipe and the class of pipe.
- (2) Provide at least one person thoroughly trained and experienced in the skills required, who shall be completely familiar with the work described in this section, who shall be present at all times during progress of the work of this section, and who shall direct all work performed under this section.
- (3) Deflection testing of PVC pipe will be required.
- (4) Televising of all main line sewers installed will be required.

## **E** Pipe Materials

- (1) <u>Sewer Pipe:</u> PVC pipe meeting the requirements of ASTM D3034, SDR-35. Joints shall be push-on elastomeric joints meeting the requirements of ASTM D3212 and that have been approved by the Wisconsin DNR.
- (2) <u>Sewer Laterals</u>: PVC pipe meeting the requirements of ASTM D3034, SDR-35; ASTM D2665; or ASTM D1785, Schedule 40. Elastomeric joints meeting requirements of ASTM D3212 or solvent cement.

7040-01-73 41 of 82

## **F** Pipe Locator Conductor

- (1) Conductor: #12 AWG PVC coated copper conductor rated for wet conditions.
- (2) <u>Terminal Box:</u> (1) Type A: Cast iron rim and lid, ABS plastic body with 2-1/2inch shaft and flared base, terminal blocks on lid, 24" length, lid mark water or sewer; Bingham & Taylor P200NFG or equal. (2) Type B: Cast iron valve box top, approximate length of 24 inches, lid marked sewer or water. (3) Unless otherwise noted with the contract documents, use Type A for terminal boxes located within turf areas, sidewalks, or driveways and Type B for terminal boxes located within street paving.

## **G** Bedding and Cover Material

- (1) Provide offsite bedding and cover material meeting the requirements of ASTM D2321, Class IA, IB, II or III material, which materials are described as follows:
- (2) Class IA Clean angular crushed stone, crushed rock, or crushed gravel conforming to the following gradation:

Sieve	% Passing
Size	By Weight
1"	100
3/4"	90 - 100
3/8"	20 -55
No. 4	0 - 10
No. 8	0 - 5

(3) Class IB - Clean angular crushed stone, crushed rock, or crushed gravel conforming to the following gradation:

Sieve	% Passing
Size	By Weight
1/2"	100
3/8"	85 - 100
No. 4	10 - 30
No. 200	0 - 5

- (4) Class II Clean coarse-grained soils with 100% passing the 1-1/2" sieve and less than 5% passing the No. 200 sieve. Generally including sands, gravels, and sand-gravel mixtures with little or no fines. ASTM D2487 Soil Types GW, GP, SW and SP are included in this class.
- (5) Class III Coarse-grained soils with fines with 100% passing the 1-1/2" sieve and 12% 50% passing the No. 200 sieve. Generally includes silty or clayey sands, gravels, or sand-gravel mixtures. ASTM D2487 Soils Types GM, GC, SM and SC, are included in this class.

7040-01-73 42 of 82

(6) If the excavated material conforms to one of the bedding classes, it may be used for bedding.

## **H** Crushed Stone

Hard, durable particles of crushed stone or gravel substantially free from shale or lumps of clay or loam meeting the following gradation:

Sieve Size	% Passing By Weight
2 Inch	100
1-1/2 Inch	90 - 100
1 Inch	35 - 70
3/4 Inch	0 - 15
1/2 Inch	0 - 5

## I Backfill Material

Natural soils, free of organic matter, trash, deleterious materials, stones larger than eight inches and frozen material and classified in ASTM D2487 as follows:

- GW Well-graded gravels, gravel-sand mixtures, little or no fines.
- GP Poorly-graded gravels, gravel-sand mixtures, little or no fines.
- GM Silty gravels, gravel-sand-silt mixtures.
- GC Clayey gravels, gravel-sand-clay mixtures.
- SW Well-graded sands, gravelly sands, little or no fines.
- SP Poorly-graded sands, gravelly sands, little or no fines.
- SM Silty sands, sand-silt mixture.
- SC Clayey sands, sand-clay mixtures.
- ML Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
- CL Inorganic clays of low to medium plasticity, gravelly

Soils classified in ASTM D2487 as follows are not acceptable:

- OL Organic silts and organic silty clays of low plasticity.
- MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
- CH Inorganic clays of high plasticity, fat clays.
- OH Organic clays of medium to high plasticity, organic silts.
- Pt Peat and other highly organic soils.

## J Lines and Grade

(1) All lines and grade shall be given by the engineer. The contractor will be responsible for the preservation of the grade stakes when set, and if disturbed, shall pay the actual cost of replacing the stakes.

7040-01-73 43 of 82

- (2) The contractor shall notify the engineer at least 48 hours in advance of the need for grade stakes.
- (3) The use of a laser beam for maintaining line and grade is required unless, other methods are approved by the engineer or owner's representative. Check elevations of all sewers with a level every 50 feet where the grades are equal to or less than one percent and every 100 feet where the grades are greater than one percent. A person qualified to operate the equipment shall be present when the laser is in use.

# K Handling of Pipe

All pipe and accessories shall be handled with care to avoid damage. Pipe and accessories shall not be dropped. All material found to have cracks or flaws shall be removed from the job site.

# L Laying Pipe

- (1) Lay pipe uniformly to line and grade so that the finished sewer will have a smooth and uniform invert. Noticeable variations from true alignment and grade will be sufficient cause for the rejection of the work.
- (2) Proceed upgrade with the spigot ends pointing in the direction of the flow.
- (3) Each pipe shall lay on the full length of its barrel.
- (4) Do not lay next pipe until previous pipe is backfilled sufficiently to prevent movement.
- (5) All pipe laid in trenches shall have a minimum clearance or 6 inches for rigid pipe and 12 inches for flexible pipe between the outside face of the pipe and the trench wall.
- (6) Do not disturb the installed pipe and its embedment when using movable trench boxes. If the box extends below the cover material, use methods to assure that the integrity of the embedment is maintained when the box is moved.
- (7) Keep interior of the pipe clean and dry. Water shall not be allowed in the trench while pipe is being laid. When work is stopped, securely plug the end of the pipe.
- (8) Joining Pipe. Assemble joints according to the pipe manufacturer's instructions. Solvent cements shall meet ASTM D564. Make solvent cement joints according to ASTM D2855. Handle solvent cements according to ASTM F402.
- (9) Trench excavations shall be fully completed a sufficient distance in advance of the laying of the sewer, and the exposed end of all pipes shall be fully protected with a board or other approved stopper to prevent earth or other substances from entering the pipe. Not more than 100 feet of trench shall be opened in advance of pipe laying unless permitted by the engineer.

7040-01-73 44 of 82

# M Trenching

- (1) Normal trench width below the top of the pipe shall be the nominal pipe diameter plus 24 inches
- (2) Do not undercut trench walls. Trench walls more than five feet in depth shall be shored, cut back to stable slope or provided with equivalent means of protection according to the applicable rules of the Department of Labor, Occupational Safety and Health Administration (OSHA). Provide a ladder for trench exit in trenches over four feet deep.
- (3) Excess excavation below the required level shall be backfilled at the contractor's expense with crushed stone approved by the engineer.
- (4) If the trench bottom is unstable due to soil or groundwater conditions and additional bedding is required to stabilize the trench bottom, the trench shall be excavated to the required depth and backfilled with 1-1/2 inch crushed stone. The contractor will not be paid for this item unless it was ordered or approved by the engineer prior to the work being done.
- (5) Not more than 100 feet of trench shall be open ahead or behind pipe laying.
- (6) Ledge rock, boulders or large stones shall be removed to provide a minimum clearance of 6 inches from the pipe.

## **N** Dewatering

- (1) Do not allow water to accumulate in the trench. Provide all equipment necessary for dewatering. No additional compensation will be made for dewatering or for stone used for dewatering.
- (2) Dispose of water in a suitable manner that meets requirements of the Wisconsin DNR. Required dewatering permits are the responsibility of the contractor

## O Pipe Bedding and Cover

- (1) Pipe bedding and cover shall be Class IA, IB, II or III materials unless the bedding class is indicated on the Drawings. Do not use Class II or Class III material when there is water in the trench. Use the same material for bedding and cover.
- (2) Place bedding material below and around pipe to the spring line to provide side support and to prevent lateral and vertical movement of the pipe. Place Class IA and Class IB material in maximum 6-inch layers. Place and compact Class II and Class III material in maximum 6-inch layers. Work the material in and around the pipe by hand to provide uniform support.
- (3) Place cover material to a level 6 inches above the top of the pipe. Place Class IA material in maximum 6-inch layers. Place and compact Class IB, Class II, and Class III materials in maximum 6-inch layers. Class IA material shall be worked by hand. Class IB material shall be compacted using hand tampers or vibratory compacters. Class II and

7040-01-73 45 of 82

Class III material shall be compacted using vibratory compactors. Each stage shall be compacted by hand or mechanical tamping to the percent of the maximum dry density according to ASTM D698 as indicated below:

Required Density		
Material Density		
Class 1A	None	
Class 1B	85%	
Class II	85%	
Class III	90%	

# P Backfilling

- (1) Backfill trenches with excavated material meeting the requirements above for backfill. Backfill trenches to the rough subgrade elevation, plus or minus 0.25 feet.
- (2) Place material in continuous layers not exceeding 8 inches compacted thickness. Compact each layer to the percent of maximum dry density as listed below according to ASTM D1557

Compaction Requirements			
Area Cohesive Soil Granular Soil			
Beneath Turf 85% 85%			
Beneath Structures 90% 95%			
Beneath Paving 90% 95%			

(3) Maintain optimum moisture content of the backfill material to attain required compaction density.

## O Separation from Water Main

- (1) Sanitary sewer mains shall be placed at least 8 feet horizontally (center to center) from any existing or proposed water main. If, due to ledge rock conditions or physical barriers, the engineer determines that the 8-foot horizontal separation cannot be maintained, the horizontal separation may be reduced to a minimum of 3 feet if the bottom of the water main is at least 18" above the top of the sewer.
- (2) When sanitary sewer mains cross under water mains, provide a minimum separation of 12 inches from the bottom of the water main to the top of the sewer. When sanitary sewer mains cross over water mains, provide a minimum of 18 inches from the bottom of the sewer to the top of the water main.
- (3) If an existing water main is encountered while laying the sanitary sewer and it is impossible to obtain the proper vertical separation, immediately inform the engineer and reconstruct the water main for a minimum distance of 8 feet on either side of the sanitary sewer to permit centering one full length of water main over the sanitary sewer.

7040-01-73 46 of 82

# R TV Inspection

- (1) After backfilling has been completed all sanitary sewer (excluding laterals) shall be inspected by internal televising. Any defects found shall be repaired or replaced.
- (2) Two copies of the televising report including DVDs of the televising shall be submitted to the engineer and the City of Loyal. The report shall include a summary of all defects found and the location of the laterals

# **S** Deflection Testing

- (1) Deflection testing shall be performed on all PVC pipe (not including laterals).
- (2) The test shall be performed with a rigid ball or mandrel without mechanical pulling devices. The testing device must pass freely through the pipe without the use of excessive force. Any line which will not pass the testing device shall be replaced and retested.
- (3) If testing is done within 30 days after backfilling, deflection may not exceed five percent. If testing is done more than 30 days after backfilling, deflection may not exceed seven and one-half percent. See following table for mandrel dimensions for ASTM D3034 and ASTM F679, SDR-35 PVC pipe.

Mandrel Dimensions for SDR-35 PVC Pipe			
Nominal Size	Base Inside	7 ½%	5%
In.	Diameter*	Mandrel	Mandrel
8	7.665	7.09	7.28
10	9.653	8.84	9.08
12	11.361	10.51	10.79
15	13.898	12.86	13.20
18	16.976	15.70	16.13
21	20.004	18.50	19.00
24	22.480	20.80	21.36
27	25.327	23.44	24.06

<sup>\*</sup> As per ASTM D3034 and F679

# **T Final Sewer Cleaning**

(1) Prior to final acceptance the sewer main shall be jet-vacuumed. Unless the engineer indicates a different time, the sewer cleaning shall be performed after the pavement has been placed. If not listed as a separate bid item, the cleaning is incidental to the sanitary sewer construction.

## **U** Service Laterals

- (1) Connections to the existing laterals shall be made with a flexible PVC coupling with stainless steel clamps, Fernco or equal.
- (2) Fittings shall be wyes on sewers less than 12-inch diameter. On sewers 12-inch diameter or larger, tees may be used.

7040-01-73 47 of 82

- (3) For sewer replacement projects with existing service laterals, wyes or tees shall be 6-inch unless the contractor field verifies that the existing lateral is 4-inch from the main to the building. For 4-inch laterals, a 6x4 reducer will be required.
- (4) Laterals shall be laid with a minimum slope of 1/8 inch per foot and a maximum slope of ½ inch per foot. Risers laid at 45 degrees shall be used to maintain the pipe within the maximum slope limit.
  - Sewer and Water Lateral Separation. (a) Sewer laterals shall have a minimum center-to-center horizontal separation from water service laterals 2-inch diameter and smaller of 30 inches. Separation may be less than 30 inches if the bottom of the water lateral is at least 12 inches above the sewer lateral. (b) Sewer laterals shall have a minimum center-to-center horizontal separation from water service laterals 2-1/2 diameter and larger of 8 feet.

# **V** Pipe Locator Conductor Installation

- (1) A pipe locator conductor shall be installed on all PVC service laterals.
- (2) Place the conductor along the top of the lateral pipe from the wye to the property line or as directed by the engineer. Tape the conductor to the pipe at minimum 10-ft. intervals.
- (3) Bring the wire to the surface at the property line or at a location directed by the engineer and within a terminal box. Provide a small diameter PVC conduit for the rise to the surface. Provide an extra 18 inches of wire at the termination point.
- (4) The wire shall be protected from damage during installation of the pipe. Tracer wire shall be continuous as much as possible. No breaks or cuts in the tracer wire shall be permitted. Where splices are necessary use connectors. Soldering or twisted wires are not allowed.

## W As-Built Measurements

Provide as-built measurements clearly marked on a clean copy of the Construction drawings. These measurements are incidental to the Work. Include measurements for all laterals including distance from downstream manhole to wye, length of lateral, height of riser, and invert elevation of lateral.

## X Measurement

The department will measure Sanitary Sewer, 15-Inch; Sanitary Sewer, 12-Inch; Sanitary Sewer, 10-Inch; Sanitary Sewer, 8-Inch, by length in linear feet along the center-line of the sewer from inside edge of manhole to inside edge of manhole, acceptably completed.

The department will measure Sanitary Sewer Lateral, 6-Inch by length in linear feet along the center-line of the sewer from center of the main to the connection with the existing lateral, acceptably completed.

7040-01-73 48 of 82

The department will measure Tracer Wire Terminal Box as each individual unit, acceptably completed.

The department will measure Sanitary Sewer Televising by length in linear feet along the center-line of the sewer from inside edge of manhole to inside edge of manhole, acceptably completed.

# Y 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	Sanitary Sewer, 15-Inch	LF
SPV.0090.03	Sanitary Sewer, 12-Inch	LF
SPV.0090.04	Sanitary Sewer, 10-Inch	LF
SPV.0090.05	Sanitary Sewer, 8-Inch	LF
SPV.0090.06	Sanitary Sewer Lateral, 6-Inch	LF
SPV.0090.07	Sanitary Sewer Televising	LF
SPV.0060.06	Tracer Wire Terminal Box	Each

- (1) Sanitary Sewer, 15-Inch; Sanitary Sewer, 12-Inch; Sanitary Sewer, 10-Inch; Sanitary Sewer, 8-Inch, measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install the sanitary sewer including excavation, bedding and cover, pipe and accessories, backfilling, compaction, deflection testing, sewer cleaning, asbuilt drawings, and bypass pumping according to the specifications and Drawings.
- (2) Sanitary Sewer Lateral, 6-Inch measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install the sanitary sewer including excavation, bedding and cover, pipe and accessories, tracer wire, backfilling and compaction, as-built drawings according to the specifications and Drawings.
- (3) Tracer Wire Terminal Box, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to furnish and install the tracer wire terminal box including box, PVC conduit, and wire and adjustment to finished grade.
- (4) Sanitary Sewer Televising, measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to perform the internal televising and to provide the televising report according to the specifications.

7040-01-73 49 of 82

29. Water Main, 10-Inch, Item SPV.0090.08; Water Main, 8-Inch, Item SPV.0090.09; Water Main, 6-Inch, Item SPV.0090.10; Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 10-Inch, Item SPV.0090.11; Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 8-Inch, Item SPV.0090.12; Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 6-Inch, Item SPV.0090.13; Gate Valve, 10-Inch, Item SPV.0060.08; Gate Valve, 8-Inch, Item SPV.0060.09; Gate Valve, 6-Inch, Item SPV.0060.10; Hydrant with 6-Inch Lead and Valve, Item SPV.0060.11.

## A Description

This item includes the furnishing and installation of water main, valves, and hydrants.

#### **B** References

- (1) ASTM D2487 Classification of Soils for Engineering Purposes.
- (2) AWWA C104 Cement Mortar Lining for Ductile Iron Pipe and Fittings.
- (3) AWWA C110 Gray and Ductile Fittings, 3" through 48", for Water and Other Liquids.
- (4) AWWA C111- Rubber Gasket Joints Ductile and Gray Iron Pipe and Fittings.
- (5) AWWA C151 Ductile Iron Pipe Centrifugally Cast in Metal Molds or Sand Lined Molds for Water and Other Liquids.
- (6) AWWA C153 Ductile-Iron Compact Fillings, 3 In. Through 24 In. (76 mm through 610 mm) and 54 In. Through 64 In. (1400 mm through 1600 mm) for Water Service.
- (7) AWWA C502 Dry-Barrel Fire Hydrants.
- (8) AWWA C515 Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service.
- (9) AWWA C600 Installation of Gray and Ductile Cast-Iron Watermain and Appurtenances.
- (10) AWWA C651 Disinfecting Water Mains.

## C Submittals

- (1) Product data on pipe, fittings, valves and hydrants.
- (2) Lubrication and maintenance instructions for hydrants Project Schedule.

(3) As built measurements.

7040-01-73 50 of 82

## **D** Quality Assurance

- (1) Provide at least one person thoroughly trained and experienced in the skills required, who is completely familiar with the work described in this section, and who shall be present at all times during progress of the work of this section and who shall direct all work performed under this section.
- (2) All materials shall be new and free from defects. Each length of pipe shall be clearly marked with the manufacturer's name, type of pipe, and the class of pipe.
- (3) Hydrostatic pressure testing and electrical conductivity testing required.
- (4) Disinfection and bacteriological sampling required.

## E Pipe

- (1) <u>Ductile Iron:</u> AWWA C151, Class 52; cement-mortar lining, AWWA C104.
- (2) Joints: Mechanical joint or push-on, AWWA C111. (a) Normal Gaskets: Rubber.
- (b) Contaminated Area Gaskets: Fluorocarbon.
- (3) <u>Electrical Conductivity:</u> Factory applied terminals with copper straps or cables capable of carrying 600 amps. Provide electrical continuity unless specifically excluded.

## F Fittings

- (1) Ductile Iron, AWWA C110 or AWWA C153. Compact fittings shall be of domestic manufacturers only.
- (2) Joint Restraint: Mechanical joint restraining glands; MEGALUG 1100 or equal.

## **G** Gate Valves

- (1) <u>Acceptable Manufacturers:</u> Kennedy, Model KS-RW; American Flow Control, Series 2500; or equal.
- (2) Resilient seat, AWWA C515; 250 psi working pressure.
- (3) <u>Valve Construction:</u> (a) Meet appropriate AWWA specification. (b) All internal ferrous surfaces shall be epoxy coated. The exterior of buried valves shall be coated with epoxy. (c) Valves to be field painted shall have all cast iron surfaces coated with primer. (d) Flange joints, ANSI 16.1, Class 125; mechanical joints, AWWA C111. (e) Valves shall be non-rising stem with square stem operating nut for socket wrench operation. (f) All valves shall be opened by turning left.
- (4) <u>Valve Box:</u> Cast iron, three-piece valve box with screw type adjustment. The work "WATER" shall be cast into the cover.

7040-01-73 51 of 82

(5) <u>Valve Box Centering Device</u>. (a) A valve box centering device that sets on the valve and is constructed of polyurethane coated steel with a rubber gasket between the device and the valve; Adapter, Inc. or equal. (b) A factory attached valve box centering device consisting of stainless steel clips, American Flow Control Tenor Valve Box Centering Device or equal.

## H Fire Hydrant

- (1) Dry-barrel type, AWWA C502; Waterous Pacer Model WB-67 with a 16" upper barrel section.
- (2) <u>Design:</u> (a) Traffic model type equipped with a barrel ground-line flanged coupling and main rod coupling designed to fail completely and uniformly when the hydrant is impacted by a motor vehicle. Weakened steel or weakened cast iron bolts used in breakable barrel couplings are not acceptable. (b) Designed for working pressure of 150 psi. (c) Main valve shall open against system pressure and shall be not less than 5 1/4-inch. (d) No excavation shall be required to remove main valve and movable parts of main valve. (e) Drain port. (f) Bury length of 7.5 feet from bottom of connecting pipe to ground line. (g) Mechanical joint inlet connection. (h) Open by turning counterclockwise. (i) Outlets: Two 2-1/2-inch hose nozzles, one 4-1/2-inch pumper nozzle with National Standard threads and caps with chains. (j) Pentagonal operating nuts.

# I Tapping Sleeve

Carbon steel, epoxy coated, mechanical joint; Smith-Blair 622, Dresser 610, or equal.

## J Service Saddles

Double strap, epoxy-coated ductile iron with stainless steel straps; Smith-Blair 317 or equal.

## **K** Bedding and Cover Material

- (1) Provide bedding and cover material meeting the requirements of ASTM D2321, Class IA, IB, II or III described as follows:
- (2) <u>Class IA</u> Clean angular crushed stone, crushed rock, or crushed gravel conforming to the following gradation:

Sieve	% Passing
Size	By Weight
1"	100
3/4"	90 - 100
3/8"	20 -55
No. 4	0 - 10
No. 8	0 - 5

7040-01-73 52 of 82

(3) <u>Class IB</u> - Clean angular crushed stone, crushed rock, or crushed gravel conforming to the following gradation:

Sieve	% Passing
Size	By Weight
1/2"	100
3/8"	85 - 100
No. 4	10 - 30
No. 200	0 - 5

- (4) <u>Class II</u> Clean coarse-grained soils free from organic matter, trash, debris, stones larger than 1-inch, and frozen material and classified in ASTM D2487 as follows:
  - GW Well-graded gravels, gravel-sand mixtures, little or no fines.
  - GP Poorly-graded gravels, gravel-sand mixtures, little or no fines.
  - SW Well-graded sands, gravelly sands, little or no fines.
  - SP Poorly-graded sands, gravelly sands, little or no fines.

Excavated trench material may be used if it meets the above material requirements.

- (5) <u>Class III</u> Coarse-grained soils with fines free from organic matter, trash, debris, stones larger than 1-inch, and frozen material and classified in ASTM D2487 as follows:
  - GM Silty gravels, gravel-sand-silt mixtures.
  - GC Clayey gravels, gravel-sand-clay mixtures.
  - SM Silty sands, sand-silt mixture.
  - SC Clayey sands, sand-clay mixtures.

Excavated trench material may be used if it meets the above material requirements.

## L. Backfill material

Natural soils, free of organic matter, trash, deleterious materials, stones larger than eight inches and frozen material and classified in ASTM D2487 as follows:

- GW Well-graded gravels, gravel-sand mixtures, little or no fines.
- GP Poorly-graded gravels, gravel-sand mixtures, little or no fines.
- GM Silty gravels, gravel-sand-silt mixtures.
- GC Clayey gravels, gravel-sand-clay mixtures.
- SW Well-graded sands, gravelly sands, little or no fines.
- SP Poorly-graded sands, gravelly sands, little or no fines.
- SM Silty sands, sand-silt mixture.

7040-01-73 53 of 82

- SC Clayey sands, sand-clay mixtures.
- ML Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
- CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.

Soils classified in ASTM D2487 as follows are not acceptable:

- OL Organic silts and organic silty clays of low plasticity.
- MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
- CH Inorganic clays of high plasticity, fat clays.
- OH Organic clays of medium to high plasticity, organic silts.
- Pt Peat and other highly organic soils.

## M. Handling of Materials

All materials shall be handled with care to avoid damage. No material shall be dropped. All defective material shall be removed from the jobsite. Store materials in a manner that protects them from damage, including freezing.

#### N Lines and Grade

- (1) Pipe shall be laid to line and grade as shown on the Drawings or as given by the engineer. Locate all fittings, valves, and hydrants as shown on the Drawings or as given by the engineer.
- (2) The contractor shall notify the engineer at least 48 hours in advance of the need for line and grade stakes. The contractor is responsible for the preservation of the stakes and, if disturbed, shall pay the cost of replacement.

## O Laying Pipe

- (1) Unless otherwise indicated on the plans, all water mains, including hydrant leads, shall have a minimum depth of cover of 7.0 feet.
- (2) Handle pipe, fittings, valves and hydrants in a manner to prevent damage. Use suitable equipment when lowering materials into the trench.
- (3) Before pipe is laid, remove all foreign matter from the inside and remove all excess coating material, blisters, oil, grease, dirt and moisture from the inside of the bell end and the outside of the spigot end.
- (4) The interior of the pipe shall be kept clean during laying, and no trench water shall be allowed to enter the pipe.
- (5) Assemble joints according to AWWA C600.

7040-01-73 54 of 82

(6) Pipe lines intended to be straight shall be so laid. Deflections from straight line or grade, when required, shall be as listed as follows:

Max. Deflection Full Length Pipe - Push-on Jionts

Pipe	Deflection	Maximum Def	lection - Inches
Diameter	Angle	18-Ft Length	20-Ft Length
6"	5°	19	21
8"	5°	19	21
10"	5°	19	21
12"	5°	19	21

Max. Deflection Full Length Pipe - Mechanical Joints

Pipe	Deflection	Maximum De	flection - Inches
Diameter	Angle	18-Ft Length	20-Ft Length
6"	7°-7'	27	30
8"	5°-21'	20	22
10"	5°-21'	20	22
12"	5°-21'	20	22

## P Petroleum Contaminated Soil

(1) Use ductile iron pipe with fluorocarbon gaskets when watermain is installed in petroleum contaminated soil. (2) Encase pipe, valves, and hydrants with polyethylene.

## **O** Trenching

- (1) Cut trenches sufficiently wide to enable installation of the utilities and allow inspection. Normal trench width below the top of the pipe shall be the nominal pipe diameter plus 24 inches.
- (2) Do not undercut trench walls. Trench walls more than five feet in depth shall be shored, cut back to stable slope or provided with equivalent means of protection according to the applicable rules of the Department of Labor, Occupational Safety and Health Administration (OSHA). Provide a ladder for trench exit in trenches over 4 feet deep.
- (3) Excess excavation below the required level shall be backfilled at the contractor's expense with crushed stone.

7040-01-73 55 of 82

- (4) If the trench bottom is unstable due to soil or groundwater conditions and additional bedding is required to stabilize the trench bottom, the trench shall be excavated to the required depth and backfilled with 1-1/2 inch crushed stone. The contractor will not be paid for this item unless it was ordered or approved by the engineer prior to the work being done.
- (5) Not more than 100 feet of trench shall be open ahead or behind pipe laying.
- (6) Ledge rock, boulders or large stones shall be removed to provide a minimum clearance of 6 inches from the pipe.

## **R** Dewatering

- (1) Do not allow water to accumulate in the trench. Provide all equipment necessary for dewatering. No additional compensation will be made for dewatering or for stone used for dewatering.
- (2) Dispose of water in a suitable manner that meets requirements of the Wisconsin DNR. Required dewatering permits are the responsibility of the contractor.

# S Bedding and Cover

Place four inches of crushed stone bedding below the pipe. Place bedding material around the pipe to the spring line. Work the material in and around the pipe by hand to provide uniform support. Place cover material carefully to a level six inches above the pipe.

## T Backfilling

- (1) Backfill trenches with excavated material meeting the requirements above for backfill. Backfill trenches to the rough subgrade elevation, plus or minus 0.25 feet.
- (2) Place material in continuous layers not exceeding 8 inches compacted thickness. Compact each layer to the percent of maximum dry density as listed below according to ASTM D1557.

Compaction Requirements		
Area	Cohesive Soil	Granular Soil
Beneath Turf	85%	85%
Beneath Structures	90%	95%
Beneath Paving	90%	95%

(3) Maintain optimum moisture content of the backfill material to attain required compaction density.

## **U** Thrust Restraint

(1) Provide joint restraints for all mechanical joint connections including valves, hydrants, fittings, plugs, and caps. Install joint restraints according to the manufacturer's instructions. (2) In addition to joint restraints, provide precast concrete reaction block

7040-01-73 56 of 82

(cast-in-place concrete may be used) with an approximate weight of approximately 600 lbs. for all horizontal tees and bends, and for end caps, and hydrants. Concrete masonry blocks are not acceptable. (3) For vertical offsets, provide joint restraints for all fittings and rods between fittings.

## V Valve Installation

- (1) Provide valve box for each valve unless the plans call for a valve manhole.
- (2) Install valve adapter on valve and set box on adapter, as per manufacturer's instructions.
- (3) Set valve box vertical with the cover one-half inch below finish grade. Install box so that there is a minimum of 6 inches of adjustment above and below finish grade elevation.

## W Hydrant Installation

- (1) Set all hydrants plumb and have the nozzles parallel with or at right angles to the curb line or street with the pumper nozzle facing the curb or street.
- (2) Set hydrant height above grade as shown on the Standard Detail Drawings.
- (3) Connect hydrants to the main with a 6" lead. Install a gate valve on the lead unless specifically deleted.
- (4) Provide drainage at the base of the hydrant by placing crushed stone wrapped in geotextile at the base of the hydrant. The stone shall extend at least 6" above the hydrant drain port. Where ground waters rise above the drain port or when the hydrant is located within 8 feet of a sanitary or storm sewer, plug the drain port.
- (5) Provide plastic bag or poly-wrap covering over top of hydrant until the water main has been accepted by engineer for fire protection.

## **X** Electrical Conductivity

- (1) Provide electrical conductivity. Bolt copper straps of push-on pipe together. For mechanical joint pipe, bolt copper strip to bell. Bare metal on bell prior to connection.
- (2) For pipes cut in the field, exothermically weld the bonding straps to the pipe. The pipe metal shall be bared at the point of attachment. Coat bear metal with asphaltic material.
- (3) Provide conductivity across all valves and across bottom of hydrants using a copper strap or minimum #4 AWG bare copper wire welded to pipe on either side of the valve and to the hydrant lead and hydrant barrel.

7040-01-73 57 of 82

# **Y** Separation From Sewer

- (1) Lay water mains a minimum of 8 feet from sewer lines (center to center).
- (2) When water mains cross over sewers, provide a minimum of 12 inches from the bottom of the water main to the top of the sewer.
- (3) When water mains cross under sewers, provide a minimum of 18 inches from the top of the water main to the bottom of the sewer.

# **Z** Hydrostatic Testing

- (1) The pipe shall be tested hydrostatically to a pressure of 150-psi according to AWWA C600. Perform testing in the presence of the engineer or authorized representative of the Owner
- (2) The contractor shall provide all equipment and shall perform all work required in connection with the tests.
- (3) Each section tested shall be slowly filled with water, care being taken to expel all air from the pipes.
- (4) Conduct leakage test at the same time or following the pressure test according to AWWA C600. The leakage test shall be for a minimum of two hours. The test pressure shall be maintained within 5 psi of the specified test pressure. The allowable leakage shall be determined by the following equation:

$$L = SD(P)^{1/2}$$
133,200

L = allowable leakage in gallons per hour.

S = length of pipe tested in feet.

D = nominal pipe diameters in inches.

P = average test pressure in psi.

Allowable Leakage - GPH/1,000 Ft.		
150 PSI Test Pressure		
Pipe Size Allowable Leakage		
Inches	Gallons	
3	0.28	
4	0.37	
6	0.55	
8	0.74	
10	0.92	
12	1.10	
14	1.29	

(5) Any section of pipe that fails the test shall be repaired and retested. The cost of the testing shall be included in the cost of the water main. No separate payment will be made.

7040-01-73 58 of 82

#### AA Disinfection and Bacteriological Testing

- (1) Before being placed in service, the water main shall be flushed and chlorinated according to AWWA C651.
- (2) During the chlorination process all valves and hydrants shall be operated to ensure contact of all parts with the chlorine solution.
- (3) After chlorination has been completed the water shall be flushed from the system until the chlorine concentration in the water being flushed is no higher than that generally prevailing in the system or less than 1 mg/1.
- (4) After final flushing, and before the water mains are placed into service, bacteriologically safe tests shall be obtained. Two samples, at least 24 hours apart, are required. Sampling shall be performed according to AWWA C651.
- (5) No separate payment will be made for the disinfection and bacteriological testing. The cost shall be included in the pipe installation items.

#### **BB** Tapping Sleeve Testing

All tapping sleeves shall be hydrostatically tested at a minimum of 150 PSI prior to tapping.

#### **CC** As-Built Measurements

(1) Provide as-built measurements clearly marked on a clean copy of the Construction Drawings. These as-built measurements are incidental to the Work. As a minimum, include the following items: (a) Distance between valves, tees and bends. (b) Ties from ground features to tees and bends to clearly locate the buried utility construction. (c) Distance from tees, valves, or bends to corporation stops. (d) Length of service laterals.

#### **DD** Method of Measurement

The department will measure Water Main, 10-Inch, Water Main, 8-Inch, Water Main, 6-Inch, Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 10-Inch, Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 8-Inch, and Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 6-Inch by length in linear feet along the center-line of the water main, acceptably completed.

The department will measure Gate Valve, 10-Inch, Gate Valve, 8-Inch, and Gate Valve, 6-Inch as each individual unit, acceptably completed.

The department will measure Hydrant with 6-inch Lead and Valve as each individual unit, acceptably completed.

#### **EE Payment**

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

7040-01-73 59 of 82

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.08	Water Main, 10-Inch	LF
SPV.0090.09	Water Main, 8-Inch	LF
SPV.0090.10	Water Main, 6-Inch	LF
SPV.0090.11	Fluorocarbon Gaskets and Polyethylene	LF
	Encasement of Water Main, 10-Inch	
SPV.0090.12	Fluorocarbon Gaskets and Polyethylene	LF
	Encasement of Water Main, 8-Inch	
SPV.0090.13	Fluorocarbon Gaskets and Polyethylene	LF
	Encasement of Water Main, 6-Inch	
SPV.0060.08	Gate Valve, 10-Inch	Each
SPV.0060.09	Gate Valve, 8-Inch	Each
SPV.0060.10	Gate Valve, 6-Inch	Each
SPV.0060.11	Hydrant with 6-Inch Lead and Valve	Each

- (1) Water Main, 10-Inch, Water Main, 8-Inch, and Water Main, 6-Inch, measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install the water main including excavation, bedding and cover, pipe and accessories, backfilling, compaction, testing, disinfection, and as-built drawings according to the specifications and Drawings.
- (2) Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 10-Inch, Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 8-Inch, and Fluorocarbon Gaskets and Polyethylene Encasement of Water Main, 6-Inch, measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to furnish and install polyethylene encasement of the water main and fluorocarbon gaskets including the clay seams in the locations shown on the Drawings.
- (3) 10-Inch, Gate Valve, 8-Inch, Gate Valve, and 6-Inch Gate Valve, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install water valves according to the specifications and Drawings.
- (4) Hydrant with 6-Inch Lead and Valve, measured as provided above, will be paid for at the contract price each, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to furnish and install fire hydrant including excavation, bedding and cover, hydrant, drainage stone with geotextile, 6-inch lead and 6-inch gate valve with box and adapter, joint restraints, concrete block, backfilling and compaction, and disposition of excess material, adjustment to finish grade and as-built drawings.

7040-01-73 60 of 82

#### 30. Concrete Curb and Gutter Cure and Seal Treatment Item SPV.0090.15.

#### **A Description**

This work includes treating all newly constructed concrete curb and gutter with a surface cure and seal treatment as shown on plans, and as hereinafter provided.

#### **B** Materials

Materials shall conform to a clear treating material listed on the current approved WISDOT product list for "Cure and Seal Compounds for Non-Trafficked Surfaces on Structural Masonry".

#### **C** Construction

Application rates for the treating material shall be according to the manufacturer's specifications.

#### **D** Measurement

The department will measure the Concrete Curb and Gutter Cure and Seal Treatment 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 NUMBERDESCRIPTIONUNITSPV.0090.15Concrete Curb and Gutter Cure and Seal TreatmentLF

Payment is full compensation for providing Concrete Curb and Gutter Cure and Seal Treatment.

# 31. Flashing Beacon, South Street / Main Street, Item SPV.0105.01; Main Street / South Street SPV.0105.5; Main Street / Elm Drive, SPV.0105.06; Elm Drive / Main Street, SPV.0105.07; CTH K / Elm Drive, SPV.0105.08.

#### A Description

This special provision describes installing new flashing beacon at the South Street / Main Street and Main Street / Elm Drive intersections as shown on the plans and according to standard spec 658.

#### **B** Materials

Provide 12" red flashing poly LED beacon, with black visor and housing powered by solar hardware. Provide brackets and hardware according to manufacturer's recommendations. Provide flasher capable of continuous flashing operation. Provide all necessary wiring to connect LED beacon to solar power hardware.

#### **C** Construction

Install new flashing beacon according to the plans and standard spec 658.3 and the manufacturer's printed installation instructions.

7040-01-73 61 of 82

#### **D** Measurement

The department will measure Flashing Beacon (Location) 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	Flashing Beacon, South Street / Main Street	LS
SPV.0105.05	Flashing Beacon, Main Street / South Street	LS
SPV.0105.06	Flashing Beacon, Main Street / Elm Drive	LS
SPV.0105.07	Flashing Beacon, Elm Drive / Main Street	LS
SPV.0105.08	Flashing Beacon, CTH K / Elm Drive	LS

Payment for the Flashing Beacon bid item is full compensation for furnishing all removals and disconnections of existing beacons, for coordinating connection of the solar power source, including any connection fees; for installing flashing beacon; for furnishing all materials.

## 32. Construction Staking Concrete Pavement Joint Layout, Item SPV.0105.02.

#### **A Description**

This work shall consist of providing a concrete pavement joint layout design for intersections and staking the location of all joints on the project, including mainline and intersections to accommodate the concrete paving operation. The contractor shall set all points necessary to establish the horizontal position of the dowel bar sets and saw joints in the concrete pavement according to the plans or as directed by the engineer.

#### **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 before paving each intersection. Mark the location of all concrete joints in the field. Make joint adjustments as required to fit field conditions, traffic staging, or as directed by the engineer.

#### **D** Measurement

The department will measure Construction Staking Concrete Pavement Joint Layout 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:

7040-01-73 62 of 82

ITEM NUMBER DESCRIPTION UNIT SPV.0105.02 Construction Staking Concrete Pavement LS Joint Layout

Payment is full compensation for providing the intersection joint layout designs, survey work necessary to locate all dowel bar sets and saw joints on the mainline and intersections, and for adjustments to match field conditions and traffic staging.

## 33. Project Concrete Crack Mitigation and Repair Special, Item SPV.0105.03.

#### A Description

This special provision describes work according to standard spec 415, and as hereinafter provided.

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

#### **C** Construction

Provide the engineer with HIPERPAV analysis 3 days prior to the placement of Concrete Pavement 7 ½-Inch Special. If 7 calendar days elapse between staging paving operations, an additional analysis of HIPERPAV may be requested by the engineer.

If cracks occur, selection of repair type shall be as specified in Procedure 4.24 of the Construction and Materials Manual (CMM).

#### **D** Measurement

The department will measure the item Project Concrete Crack Mitigation and Repair Special by the lump sum unit of work, acceptably completed.

#### E Payment

Delete entire standard spec 415.5.3 and replace with the following.

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

ITEM NUMBER DESCRIPTION UNIT SPV.0105.03 Project Concrete Crack Mitigation and Repair Special LS

Payment is full compensation for performing mix design HIPERPAV analysis, mix design adjustments and corrections as per Project Concrete Crack Mitigation and Repair Special, all PCC pavement repairs, mobilization, all necessary traffic control devices.

Fifty percent payment of this item will be paid to the contractor after the completion of the first HIPERPAV analysis. The remaining fifty percent will be paid for upon final project acceptance.

7040-01-73 63 of 82

#### 34. Concrete Ramp, Item SPV.0105.04.

#### **A Description**

This special provision describes work according to standard spec 602 of the Standard Specifications, and as hereinafter provided.

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

#### **C** Construction

Install concrete ramp according to the plans and standard spec 602.3 and the manufacturer's printed installation instructions.

#### D Measurement

The department will measure the item Concrete Ramp by the lump sum unit of work, acceptably completed.

#### **E** Payment

Delete entire standard spec 602.5.1 and replace with the following.

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

ITEM NUMBERDESCRIPTIONUNITSPV.0105.04Concrete RampLS

Payment is full compensation for providing materials, including concrete, reinforcement, and expansion joints; for excavating and preparing the foundation; backfilling and disposing of surplus material; for placing, finishing, protecting, and curing; and restoring the work site. Payment also includes providing tie bars and dowel bars in unhardened concrete.

## 35. Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP Pilot, Item SPV.0165.01.

#### **A Description**

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the mechanically stabilized earth (MSE) wall and all wall components shall be 75 years minimum.

This special provision describes the quality management program (QMP) for MSE walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

7040-01-73 64 of 82

This special provision describes contractor quality control (QC) sampling and testing for backfill density testing, documenting those results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

#### **B** Materials

#### **B.1 Proprietary Mechanically Stabilized Earth Concrete Panel Wall Systems**

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems (Concrete Panel MSE Walls).

Proprietary wall systems may be used for this work, but must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures, Structures Design Section. The department maintains a list of pre-approved Concrete Panel Mechanically Stabilized Earth Wall systems. To be eligible for use on this project, a system must have been pre-approved and added to that list prior to the bid opening date. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the concrete panels shall be furnished to the engineer at least 14 days prior to the start of panel production.

To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision. Applications for pre-approval may be submitted at any time. Applications must be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Structures Design Section in Room 601 of the Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

#### **B.2 Design Requirements**

It is the responsibility of the contractor to supply a design and supporting documentation as required by this special provision, for review by the department, to show the proposed wall design is in compliance with the design specifications. Four copies of the following shall be submitted to the engineer for review and acceptance no later than 60 days from the date of notification to proceed with the project.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings,

7040-01-73 65 of 82

and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the Concrete Panel MSE wall shall be in compliance with the AASHTO LRFD Bridge Design Specifications 5<sup>th</sup> Edition 2010, (AASHTO LRFD) with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (Standard Specifications), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table11.5.6-1 LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the contract plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the Concrete Panel Mechanically Stabilized Earth wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits.

7040-01-73 66 of 82

Facing panels shall meet the design requirements of AASHTO LRFD 11.10.2.3. The Facing panels shall also be designed to resist compaction stresses that occur during the wall erection. The minimum thickness of the Facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 60 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 foot in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length, unless the plans indicate other.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 the wall height or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement steel required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads according to AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Cutting or altering of the basic structural section of either the strip or grid at the site is prohibited unless approved by the Structures Design Section. A minimum clearance of 3" shall be maintained between any obstruction and reinforcement unless otherwise approved by the Structures Design Section. Splicing steel reinforcement is not allowed, unless approved by the Structures Design.

MSE facing panels shall be installed on concrete leveling pads. The minimum cross section of the leveling pad shall be 6-inches deep by 1-foot wide. Potential depth of frost penetration at the wall location shall not be considered in designing the wall for depth of leveling pad.

7040-01-73 67 of 82

Submit the following to the engineer for review: complete design calculations, explanatory notes, supporting materials, specifications, and detailed plans and shop drawings for the proposed wall system. Sample analyses and hand output shall be submitted to verify the output by the software. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal stabilities as defined in AASHTO LRFD.

The wall submittal package shall be submitted electronically to the engineer and Structures Design Section. Submit all required information no later than 30 days prior to beginning construction of the wall. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls.

#### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All certifications related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1** General

The walls shall have modular precast concrete face panels produced by a wet cast process, and have cast-in-place concrete pads or footings. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joints between panels shall be no more than 0.75 inch. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact.

A minimum of two bearing pads shall be used per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80, or high- density polyethylene pads with a minimum density of 0.034 lb/in<sup>3</sup> according to ASTM 1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile Fabric, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

7040-01-73 68 of 82

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability.

For cast in place sections of cap and coping, use poured concrete masonry Grade A, A-FA, A-S, A-T, A-IS or A-IP concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Use a wall leveling pad that consists of poured concrete masonry, Grade A, A-FA, A-S, A-T, A-IS or A-IP concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class II Concrete.

The minimum embedment to the top of the leveling pad shall be 1 foot 6 inches or as given on the plan or given in AASHTO LRFD 11.10.2.2 whichever is greater. Step the leveling pad to follow the general slope of the ground line. The leveling pad's steps shall keep the bottom of the wall within one half the panel heights of the minimum embedment i.e. the minimum embedment plus up to one half the height of one panel. Additional embedment may be detailed by the contractor, but will not be measured for payment.

#### **B.3.2 Backfill**

Furnish and place backfill for mechanically stabilized earth concrete panel walls as shown on the plans and as hereinafter provided.

Provide and use backfill that consists of natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. It shall not contain recycled or milled asphalt, recycled concrete, foundry sand, bottom ash, blast furnace slag or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

	Percentage by
Sieve Size	Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

7040-01-73 69 of 82

In addition, backfill material shall meet the following requirements.

Test	Method	Value
pН	AASHTO T-289	5 - 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm/cm min.
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236*	30 degrees min. (At
_		95.0% of maximum
		density and optimum
		moisture, per AASHTO
		T99, or as modified by
		C.2.)

\*If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification. If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test), are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of test results shall be less than 6 months old and performed by a certified independent laboratory.

7040-01-73 70 of 82

#### **C** Construction

#### C.1 Excavation and Backfill

Excavation will encompass preparing the leveling pad foundation and the area below the reinforcing strips according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

C.2 Compaction Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99, or as modified as follows. If the gradation of the granular backfill is such that the P-200 material is less than 7% and the P-40 is less than 30%, a one-point Proctor test can be conducted in place of the 5-point Proctor. To complete this one-point test, compact the sample at a moisture content of 6%, then compute the actual (as-tested) sample moisture after completion of the test. Use Method B or D, and perform this test without removing oversize particles and without correction for coarse particles, as per AASHTO T224. The one-point as-tested moisture content represents the optimum moisture, and the measured one-point density represents the maximum wet density of the material. From these values, the maximum dry density can be computed.

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

#### **C.3 Panel Tolerances**

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed ¾-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be ¾-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed ½-inch per 10 feet of wall height. Erect the precast face panels to ensure

7040-01-73 71 of 82

that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a ¾-inch joint separation between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this gap by the use of bearing pads and/or alignment pins. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

#### **C4** Quality Management Program

#### **C.4.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

- 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
- 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
- 3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
- 4. Descriptions of stockpiling and hauling methods.
- 5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
- 6. Location of the QC laboratory, retained sample storage, and other documentation.
- 7. A summary of the locations and calculated quantities to be tested under this provision.

#### **C.4.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Level I Grading Technician, Level I Aggregate Technician, or Assistant Certified Aggregate Technician (ACT) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Level I Nuclear Density Technician or Assistant Certified Nuclear Density Technician (ACT) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test

7040-01-73 72 of 82

results, and post resulting data. No more than one ACT can work under a single certified technician.

#### C.4.3 Equipment

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

Furnish nuclear gauges from the department's approved product list at <a href="http://www.atwoodsystems.com/materials">http://www.atwoodsystems.com/materials</a>. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D 6938 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department

#### C.4.4 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8.15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2000 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.4.5** Department Testing

#### C.4.5.1 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 2 business days after the department obtains the sample.

7040-01-73 73 of 82

#### C.4.5.2 Quality Verification (QV) Testing

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 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 at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.
- (3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.
- (4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

#### C.4.5.3 Independent Assurance (IA)

- (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 C.4.5.4.

7040-01-73 74 of 82

#### **C.4.5.4 Dispute Resolution**

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor 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 or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

#### **C.5 Geotechnical Information**

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

#### **D** Measurement

The department will measure Wall Concrete Panel Mechanically Stabilized Earth LRFD in area by the square foot, acceptably completed, measured as the vertical area within the pay limits the contract plans show. No other measurement of quantities shall be made in the field. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

#### 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 Wall Concrete Panel Mechanically Stabilized SF

Earth LRFD/QMP Pilot

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional system including cap and copings; constructing the retaining system including drainage system; and for providing backfill, backfilling,

7040-01-73 75 of 82

compacting, developing/completing/documenting the quality management program, performing compaction testing. Parapets, railings, abutment bodies and other items above the wall cap or coping will be paid for separately. Vehicle barrier and its support will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price of topsoil, fertilizer, seeding or sodding and mulch, respectively. (NER13-1121)

#### 36. Temporary Pedestrian Hard Surface, Item SPV.0165.02.

#### A Description

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

7040-01-73 76 of 82

#### **D** Measurement

The department will measure Temporary Pedestrian Hard 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 NUMBERDESCRIPTIONUNITSPV.0165.02Temporary Pedestrian Hard SurfaceSF

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

#### 37. Concrete Pavement 7 1/2-Inch Special, Item SPV.0180.01.

#### **A Description**

This special provision construction of doweled concrete pavement according to standard spec 415, standard spec 710, and standard spec 715, as shown on the plans, and as hereinafter provided.

#### **B** Materials

#### **B.1** Concrete Mixtures

Supplement standard spec 715.2 with the following:

Concrete mix designs shall be the responsibility of the contractor. Provide the concrete mix designs necessary to accommodate contractor's operations and contractor scheduling according to the traffic provisions and the prosecution and progress provisions included in the plan. At least 7 business days before producing concrete, submit concrete mix documentation to the engineer for approval. Approval of the design mix does not relieve the contractor of the responsibility for meeting contractual requirements located within the traffic provisions and the prosecution and progress provisions.

If the geological composition of the coarse aggregate is primarily igneous or metamorphic materials, modify and supplement standard spec 415, standard spec 710, and standard spec 715 with the following:

- 1. The contractor may use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes use up to 15% fly ash or slag, except for slip-formed work the contractor may use up to 20% slag. For ternary mixes use up to 25% fly ash and slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.
- 2. One hundred percent of the aggregate shall pass the 1-inch sieve.

Use of recycled concrete for coarse aggregate will not be allowed.

#### C (Vacant)

7040-01-73 77 of 82

#### **D** Measurement

The department will measure Concrete Pavement 7 1/2-Inch Special by area in square yards, completed according to the contract and accepted.

#### E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0180.01Concrete Pavement 7 1/2-Inch SpecialSY

Substandard spec 415.5.3 is deleted and replaced with special provision Project Concrete Crack Mitigation and Repair, Item SPV.0105.03

# 38. Sanitary Sewer Manhole, Item SPV.0200.01; Sanitary Sewer Manhole Outside Drop, Item SPV.0200.02; Sanitary Sewer Manhole Frame and Cover and Interior Seal, Item SPV.0060.07.

#### A Description

Work under this item includes the furnishing and installation of sanitary sewer manholes.

#### **B** References

- (1) ASTM A48 Gray Iron Castings.
- (2) ASTM C94 Ready-Mixed Concrete.
- (3) ASTM C270 Mortar for Unit Masonry.
- (4) ASTM C478 Precast Reinforced Concrete Manhole Sections.
- (5) ASTM 877 Standard Specifications for External Sealing Bands for Concrete Pipe, Manholes and Precast Box Sections
- (6) ASTM C923 Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals.
- (7) ASTM C990 Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
- (8) AASHTO M198 Joints for Circular Concrete Sewer and Culvert Pipe Using Flexible Watertight Gaskets.

#### **C** Submittals

Contractor shall submit supplier's shop drawings for concrete manhole sections and appurtenances to engineer for approval prior to start of work.

7040-01-73 78 of 82

#### **D** Quality Control

- (1) Manhole sections will be rejected for any of the following reasons: (a) Fractures or cracks passing through the wall, except for a single end crack that does not exceed the depth of the joint. (b) Surface defects indicating honey-combed or open texture that would adversely affect the function of the manhole. (c) The planes of the ends of the manhole sections are not perpendicular to their longitudinal axis, within the limits of the variation given in paragraphs 12.3 and 12.4 of ASTM C478. (d) Damaged or cracked ends, where such damage would prevent making a satisfactory joint. (e) Any continuous crack having a length of 12 inches or more, regardless of position in the section of wall. (f) Lift holes that extend through wall. (g) Drop across flowline not as specified.
- (2) Concrete adjusting rings will be rejected if they contain cracks that extend more than one-half the thickness of the ring.

#### **E** Materials

- (1) <u>Barrel</u>. Precast concrete, ASTM C478. Standard manhole shall have a 4-foot I.D., eccentric cone and 24-inch diameter opening, unless indicated otherwise on the Drawings. Provide slab tops when manholes are too shallow for cone section. Slab tops shall be of the in-bell design. Lift holes extending through barrel wall are not allowed.
- (2) <u>Joint Sealant</u>. Butyl rubber rope, AASHTO M198 or ASTM C990; Kent Seal; Hamilton Kent; EZ-Stik, Press-Seal Gasket Corp.; ConSeal; or equal.
- (3) Exterior Joint Sealant. A rubberized external sealing collar with metal bands meeting ASTM C877, Type II; MacWrap by MarMac Manufacturing Co. or equal.
- (4) <u>Steps</u>. 1/2-inch diameter, Grade 60 steel rod covered with polypropylene plastic; PS1, M.A. Industries, Inc.; ML-10, American Step Company; or equal.
- (5) <u>Pipe Connections</u>. Flexible, watertight, rubber connector with stainless steel clamps. Connections shall be the type that install in a cored hole and expand when the clamp is tightened; Kor-N-Seal, NPC, Inc.; PSX, Press-Seal Gasket Corp; or equal.
- (6) <u>Frame and Cover.</u> (a) Cast iron, ASTM A48, Class 35B. (b) Standard Cover: Non-rocking design, concealed pick holes and neoprene O-ring gasket, unless otherwise indicated on the Drawings. (c) Frames and covers shall be Neenah Foundry Co. or equal and the type and duty shown on the Drawings.
- (7) Adjusting Rings. (a) Precast concrete, uniform in dimension, with smooth surfaces. (b) Concrete ASTM C94; 3,000 psi at 28 days, 3 to 4-inch slump, maximum aggregate size of 1-1/2 inch. (c) Mortar ASTM C270, Type M.
- (8) <u>Interior Manhole Chimney Seal</u>. A flexible interior seal designed to prevent leakage of water throughout a 25-year design life. The seal shall remain flexible throughout the design life, allow repeated vertical movements of the frame of not less than two inches and/or repeated horizontal movement of not less than one-half inch. The seal shall be

7040-01-73 79 of 82

as manufactured by Cretex Specialty Products, Waukesha, WI; NCP FlexRib Seals, C.P. Technologies & Service, Elkhorn, WI; or equal. (a) <u>Flexible Sleeve</u>. Extruded or molded from a high grade rubber conforming to ASTM C923. The sleeve shall be either double or triple pleated with a minimum unexpanded vertical height of eight inches and a minimum thickness of 3/16 inches. (b) Expansion Bands: 16-gauge stainless steel conforming to ASTM A240, Type 304, with a minimum width of 1-3/4 inches. Provide a positive locking mechanism. All screws, nuts, or bolts shall be stainless steel

#### F Crushed Stone

Hard, durable particles of crushed stone or gravel, substantially free from shale or lumps of clay or loam, meeting the following gradation:

	Percent Passing
Sieve Size	by Weight
2-inch	100
1-1/2 -inch	90-100
1-inch	20-55
3/4-inch	0-15
1/2-inch	0-5

#### **G** General

- (1) Provide 4 to 6 inches of precast adjusting rings, unless otherwise indicated.
- (2) Set frame and cover at the required grade.
- (3) Manholes that are constructed when temperature is below 35°F shall be protected from freezing.
- (4) Limit the manhole excavation to the size required for installation. Provide bracing and sheathing as necessary.
- (5) Provide 6 inches of crushed stone under the manhole base.
- (6) Install manhole plumb.
- (7) Seal joints with butyl rubber rope.

#### **H** Joint Sealing Below Groundwater

- (1) When the manhole joints are below the groundwater elevation, the manhole joints shall be sealed on both the edges of the joint with butyl rubber rope and an external joint seal.
- (2) The external joint seal shall be installed according to the manufacturer's instructions.

7040-01-73 80 of 82

#### I Flow Channel and Bench

- (1) Provide a U-shaped flow channel, depth equal to two-thirds the diameter of incoming and outgoing pipe but not less than 6". The channel shall be steel troweled to a smooth finish and be a continuation of the pipe.
- (2) No horizontal surfaces shall be left on the inside of the manhole floor. The bench shall have a minimum slope of 2" from the side of the manhole to the channel. The surface shall be troweled to a smooth but nonslip finish.
- (3) Precast channels and benches are preferred

#### J Steps

Shall be placed in vertical alignment, equally spaced at 16" C-C with the top step not more than 24" from the top of the casting. Locate steps over outgoing pipe.

#### **K** Setting Frames and Rings

- (1) Set frames and adjusting rings in mortar.
- (2) Prior to setting the manhole frame casting, clean surface of manhole chimney section and cast iron frame of all foreign materials and moisture.
- (3) Cover the entire surface of the manhole chimney section. Set the manhole frame firmly in the mortar. Cut the mortar flush with the interior and exterior of the manhole.
- (2) Set frame one-half inch below finish grade. Set top of frame to match the slope of surrounding paved surface.
- (3) Barricade traffic from frame until the mortar has hardened sufficiently to support expected loads.
- (4) Final adjustment of frames shall be done after curb and gutter has been constructed, the base course has been placed, and the finished pavement elevation and slope is known.

#### L Installation of Interior Manhole Chimney Seal

- (1) Remove all loose and protruding mortar that may interfere with the seal's performance. If masonry surface is rough, sloped or irregular and would not provide an effective seal, repair with non-shrink mortar.
- (2) Wire brush manhole frame to remove any loose rust or scale and repair any imperfections by grinding smooth or filling with mortar.
- (3) Install seal according to the manufacturer's instructions.
- (4) Install the interior manhole seal at the time of the final frame adjustment.
- (5) Seal shall extend from casting to manhole section, covering the entire ring section.

7040-01-73 81 of 82

#### **M** Outside Drop

- (1) An outside drop pipe shall be provided for any pipe whose invert is more than 2 feet above the manhole invert.
- (2) The invert of the drop pipe shall enter the manhole at the spring line of the outgoing sewer or as indicated on the drawings.
- (3) The drop pipe shall be strapped to the manhole and encased in concrete or the drop may be cast integral to the manhole barrel section.

#### N Measurement

The department will measure Sanitary Sewer Manhole by depth in vertical feet from the lowest invert to the top of the frame, acceptably completed.

The department will measure Sanitary Sewer Manhole Outside Drop by depth in vertical feet from the lower invert elevation to the upper invert elevation, acceptably completed.

The department will measure Sanitary Sewer Manhole Frame and Cover and Interior Seal as each individual unit, acceptably completed.

#### O Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0200.01	Sanitary Sewer Manhole	VF
SPV.0200.02	Sanitary Sewer Manhole Outside Drop	VF
SPV.0060.07	Sanitary Sewer Manhole Frame and Cover and	Each
	Interior Seal	

- (1) Sanitary Sewer Manhole, measured as provided above, will be paid for at the contract unit price per vertical foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install manhole according to the specifications and Drawings.
- (2) Sanitary Sewer Manhole Outside Drop, measured as provided above, will be paid for at the contract unit price per vertical foot, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install the manhole outside drop according to the specifications and Drawings.
- (3) Sanitary Sewer Manhole Frame and Cover and Interior Seal, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing all labor, materials, tools and equipment necessary to install frames and covers.

7040-01-73 82 of 82

## ADDITIONAL SPECIAL PROVISION 1 (ASP 1) FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS) PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

*TrANS* is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

#### I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

- 1) On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate. At the rate of \$5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.
  - <u>Eligibility and Duration:</u> To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.
  - <u>Contract Goal:</u> To maintain the intent of the Equal Employment Opportunity program, it is a goal that <u>3</u> (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).

<u>Eligibility and Duration:</u> To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

<u>Contract Goal:</u> To maintain the intent of the Equal Employment Opportunity program, it is a goal that <u>3</u> (number) TrANS Apprentice(s) be utilized on this contract.

- 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).

<u>NOTE</u>: Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.

#### 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 PROGRAM

#### 1. Description

#### General

- a. The disadvantaged business enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. The department's DBE goal is shown on the cover of the bidding proposal. The contractor can meet the specified contract DBE goal by procuring services or materials from a DBE or by subcontracting work to 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.
- b. 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.
- c. The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- d. For 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

- a. Interpret these terms, used throughout this additional special provision, as follows:
  - i. Bid Percentage: The DBE percentage indicated in the bidding proposal at the time of bid.
  - ii. **DBE:** A disadvantaged business enterprise (DBE) certified as a DBE by the department and included on the department's list of certified DBE's who are determined to be ready, willing and able.
  - iii. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.
  - iv. **Discretionary Goal:** A contractor assigned DBE goal, typically abbreviated as "Disc" on the cover of the Highway Work Proposal, which is enforced as committed.
  - v. **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.
  - vi. **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.
  - vii. **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, including projects with discretionary goals. 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. 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. Department's DBE Evaluation Process

#### a. Documentation Submittal

Within 10 business days after the notification of contract award, 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] and all necessary attachment A forms, as well as, Good Faith Waiver Form [DT1202] and supporting documentation as necessary. If the contractor fails to furnish the required forms 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.

#### i. 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 achieved. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

#### ii. Bidder Does Not Meet DBE Goal

- (1) 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 Waiver 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 waiver request.
- (2) The department will review the bidder's good faith waiver request and notify the bidder of one of the following:
  - a. If the department grants a good faith waiver, the bid is eligible for contract execution with respect to DBE commitment.
  - b. If the department rejects the good faith waiver request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith waiver request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

#### 5. Department's Criteria for Good Faith Effort

The Code of Federal Regulations {CFR}, 49 CFR Part 26-Appendix A, is the guiding regulation concerning good faith efforts. However, the federal regulations do not 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 process when making a determination of good faith.

a. The department will only grant a good faith waiver 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 waiver 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.
- b. 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.
- c. Prime Contractors should:
  - i. <u>Document</u> 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 WisDOTapproved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
  - ii. 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.
    - (1) Solicit quotes through all reasonable and available means from certified DBE firms who match 'possible items to subcontract' and send copies to DBESS office, highlighting areas in which you are seeking quotes. Email is acceptable.
    - (2) SBN is the preferred outreach tool. <a href="https://www.bidx.com/wi/main">https://www.bidx.com/wi/main</a> 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 {ideally two Fridays before the letting} to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking them if they need help in putting together a quote, or helping to arrange for equipment needs, or solve other problems.
    - (3) Second solicitation should take place within 5 days
      - a. An email solicitation is highly recommended for this second solicitation
    - (4) 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.
    - (5) When potential exists, advise interested DBE firms on how to obtain bonding, line of credit or insurance as may be requested.
    - (6) 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. Copy of the DBE quotes
      - e. Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

- d. <u>Evaluate DBE quotes</u> as documentation is critical if the prime does not utilize the DBE firm's quote for any reason.
  - i. 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 directly regarding their ability to perform the work indicated in the UCP directory as their work area [NAICS code]; only the work area and/or NAICS code listed in the UCP directory will be counted for DBE credit. Documentation of the conversation is required.
  - ii. In striving to meet a DBE conscious 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.
  - iii. **Special Circumstance:** Evaluation of DBE quotes with <u>tied bid items.</u> "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.
    - (1) Compare bid items common to both quotes, noting the reasonableness in the price comparison.
    - (2) 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.
- e. After notification of contract award, submit **'Commitment to Subcontract'** form within the time period specified in the contract.
  - i. Provide the following information along with department form DT1202:
    - (1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact. A printed copy of SBN solicitation is acceptable.
    - (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.
    - (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.
- f. The department's DBE Support Services Office is available by phone, email or in writing to request assistance in meeting the DBE goal:

DBE Support Services Office 6150 Fond du Lac Ave. Milwaukee, WI 53218

Phone: 414-438-4583 / 608-266-6961

Fax: 414-438-5392

E-mail: DOTDBESupportServices@dot.wi.gov

#### 6. Bidder's Appeal Process

- a. A bidder can appeal the department's decision to deny the bidder's good faith waiver request. 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 notice of rejection of a good faith waiver request under constitutes a forfeiture of the bidder's right of appeal. If the bidder does not appeal, the department may declare the bid ineligible for execution.
- 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 7 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.

#### 7. Department's Criteria for DBE Participation

#### **Department's DBE List**

- a. The department maintains a DBE list on the department's website
   http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/ucp-directory.xlsx
- b. The DBE office is also available to assist at 414-438-4583 or 608-266-6961.

#### 8. 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 the DBE's ability to perform the work with the use of the UCP directory.

#### 9. Commercially Useful Function

- a. The department counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.
- b. A DBE is performing a commercially useful function if the following conditions are met:
- **c.** 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.
- **d.** For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

#### 10. Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website

http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

#### 11. Manufacturers and Suppliers

The department counts material and supplies a DBE provides under the contract. The department will give full credit toward the DBE goal if the DBE is a manufacturer of those materials or supplies. The department will give 60 percent credit toward the DBE goal if the DBE is merely a supplier of those materials or supplies. 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.

#### 12. DBE Prime

If the prime contractor is a DBE, the department will only count the work the contractor performs with its own forces, the work DBE subcontractors perform, and the work DBE suppliers or manufacturers perform.

#### 13. 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.

#### 14. Mentor Protégé

- a. If a DBE performs as a participant in a mentor protégé agreement, the department will credit the portion of the work performed by the DBE protégé firm
- b. On every other project that the mentor protégé team identifies itself on.
- c. For no more than one half of the total contracted DBE goal on any WisDOT project.

#### 15. DBE Replacement

In the event a Prime Contractor needs to replace a DBE firm originally listed on the approved DBE Commitment Form DT1506, the Prime Contractor must comply with the department's DBE Replacement Policy located on the DBE page on the following web site:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

#### 16. Changes to the approved DBE Commitment Form DT1506

If there are any changes to the approved Commitment to Subcontract to DBE Form DT1506, the prime contractor must submit a revised DBE Commitment Form DT1506 and relevant attachment A(s) to the DBE Programs Office within 5 business days.

#### 17. 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.

#### 18. 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

#### GFW SAMPLE MEMORANDUM

TO: DBE FIRMS

FROM: POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR

SUBJECT: REQUEST FOR DBE QUOTES

LET DATE & TIME

**DATE:** MONTH DAY YEAR

CC: DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month-date-year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. <u>Make</u> 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 alternative's 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 <a href="http://roadwaystandards.dot.wi.gov/hcci/">http://roadwaystandards.dot.wi.gov/hcci/</a>

All questions should be directed to:

Project Manager, John Doe, Phone: (000) 123-4567

Email: Joe@joetheplumber.com

Fax: (000) 123-4657

## Sample Contractor Solicitation Letter Page 2 This sample is provided as a guide not a requirement

REQUEST FOR QUOTATION

Prime's Name:  Letting Date:  Project ID:							
Please check all that apply  Yes, we will be quoting on the No, we are not interested in quality Please take our name off your.  We have questions about quot	noting on the monthly DBI ing this letting	letting or it E contact li	s items refer	e contact n	ne at this nur		
Prime Contractor 's Contact Pers	son	7		DRE Co	ontractor Co	ntact Person	
DI .			DI				
Phone:		_	Phone				
Fax: Email:		_	Fax Email				
Eman.		_	Eman				
Please circle Proposal No.	the jobs and	l items you	will be qu	oting below	<b>w</b> 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	37	X	X		X	X
Traffic Control		X	X X	X		X X	X
Electrical Work/Traffic Signals Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X	Λ	X	X	X	X
Pipe Underdrain	X	71		X	71	24	24
Beam Guard	71			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 alternative's are acceptable.							
If there are further questions please direct	them to the	orime contra	actor's conta	ct person a	t phone nun	nber.	

# 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
- P 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.
- 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 an per-item basis as well.
- b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder
- c. Add attachments to a sub-quote
- d. Add unsolicited work items to sub-quotes that you are responding to

#### 5. Easy Access to Valuable Information

- a. Receive a confirmation that your sub-quote was opened by a prime
- b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
- c. View important notices and publications from DOT targeted to small and disadvantaged businesses

#### 6. Accessing Small Business Network for WisDOT contracting opportunities

- a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
- b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588

November 2013 ASP-4

#### 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:

#### 440.3.5.2 Corrective Actions for Localized Roughness

Replace paragraph two with the following effective with the September 2016 letting:

(2) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without physically riding that work. The engineer will not direct corrective action on bridges without authorization from the department's bureau of structures.

#### 450.3.1.1.4 Recording Truck Loads

Replace the entire text with the following effective with the December 2016 letting:

- (1) If not using automatic batch recording, install a digital recorder as part of the platform truck or storage silo scales. Ensure that the recorder can produce a printed digital record of at least the gross or net weights of delivery trucks. Provide gross, tare, net weights, load count, and the cumulative tonnage; the date, time, ticket number, WisDOT project ID, and mix 250 number; and the mix type including the traffic, binder, and mix designation codes specified in 460.3.1. Ensure that scales cannot be manually manipulated during the printing process. Provide an interlock to prevent printing until the scales come to rest. Size the scales and recorder to accurately weigh the heaviest loaded trucks or tractor-trailers hauling asphaltic mixture. Ensure that recorded weights are accurate to within 0.1 percent of the nominal capacity of the scale.
- (2) Ensure that tickets identify additives not included in the mix design submittal. Indicate on the ticket if the mixture will be placed under a cold weather paving plan and identify the warm mix additive and dosage rate required under 450.3.2.1.2.2.

#### 455.3.2.1 General

Replace paragraph one with the following effective with the December 2016 letting:

(1) Apply tack coat only when the air temperature is 32 F or more unless the engineer approves otherwise in writing. Before applying tack coat ensure that the surface and reasonably free of loose dirt, dust, or other foreign matter. Do not apply to surfaces with standing water. Do not apply if weather or surface conditions are unfavorable or before impending rains.

#### 460.2.1 General

Replace the entire text with the following effective with the December 2016 letting:

- (1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, recycled material if used, warm mix asphalt additive or process if used, and asphaltic material. Design mixtures conforming to table 460-1 and table 460-2 to 4.0% air voids to establish the aggregate structure.
- (2) Determine the target JMF asphalt binder content for production from the mix design data corresponding to 3.0% air voids (97% Gmm) target at the design the number of gyrations (Ndes). Add liquid asphalt to achieve the required air voids at Ndes.
- (3) For SMA, determine the target JMF asphalt binder content for production from the mix design data corresponding to 4.0% air voids (96% Gmm) target at Ndes.

#### 460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the December 2016 letting:

(1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75-µm	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent <sup>[1]</sup>	+1.3/-1.0	+1.0/-0.7
VMA in percent <sup>[2]</sup>	- 0.5	- 0.2

<sup>[1]</sup> For SMA, JMF limits are +/-1.3 and warning limits are +/-1.0.

#### 460.2.8.2.1.6 Job Mix Formula Adjustment

Replace paragraph one with the following effective with the December 2016 letting:

(1) The contractor may request adjustment of the JMF according to CMM 8-36.6.13.1. Have an HMA technician certified at a level appropriate for process control and troubleshooting or mix design submit a written JMF adjustment request. Ensure that the resulting JMF is within specified master gradation bands. The department will have a certified Hot Mix Asphalt, Mix Design, Report Submittals technician review the proposed adjustment and, if acceptable, issue a revised JMF.

#### 460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2016 letting:

- (1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:
  - Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
  - VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

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

#### 460.3.3.1 Minimum Required Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) Compact all layers of HMA mixture to the density table 460-3 shows for the applicable mixture, location, and layer.

#### TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

		PERCENT OF TARGET MAXIMUM DENSITY				
LOCATION	LAYER	MIXTURE TYPE				
		LT and MT	HT	SMA <sup>[5]</sup>		
TRAFFIC LANES <sup>[2]</sup>	LOWER	93.0 <sup>[3]</sup>	93.0 <sup>[4]</sup>			
	UPPER	93.0	93.0			
SIDE ROADS,	LOWER	93.0 <sup>3]</sup>	93.0 <sup>[4]</sup>			
CROSSOVERS, TURN LANES, & RAMPS	UPPER	93.0	93.0			
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0			
	UPPER	92.0	92.0			

<sup>&</sup>lt;sup>[1]</sup> The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

#### 460.5.2.1 General

Replace paragraph six with the following effective with the December 2016 letting:

(6) If during a QV dispute resolution investigation the department discovers mixture with 1.5 > Va > 5.0 or VMA more than 1.0 below the minimum allowed in table 460-1, and the engineer allows that mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

#### 460.5.2.3 Incentive for HMA Pavement Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) If the lot density is greater than the minimum specified in table 460-3 and all individual air voids test results for that mixture placed during the same day are within 2.5 - 4.0 percent, the department will adjust pay for that lot as follows:

#### INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY[1]

PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM
From -0.4 to 1.0 inclusive
From 1.1 to 1.8 inclusive
More than 1.8

\$0.40
\$0.80

<sup>[2]</sup> Includes parking lanes as determined by the engineer.

<sup>[3]</sup> Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

<sup>[4]</sup> Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

<sup>[5]</sup> The minimum required densities for SMA mixtures are determined according to CMM 8-15.

<sup>[1]</sup> SMA pavements are not eligible for density incentive.

<sup>[2]</sup> The department will prorate the pay adjustment for a partial lot.

#### 501.2.6 Fly Ash

Replace the entire subsection with the following effective with the December 2016 letting:

#### 501.2.6.1 General

- (1) Fly ash is defined as a finely divided residue resulting from the combustion of coal in a base loaded electric generating plant, transported from the boiler by flue gases, and later collected, generally by precipitators. Use fly ash in concrete manufactured by facilities and processes known to provide satisfactory material.
- (2) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.
- (3) Use only one source of fly ash for a bid item of work under the contract, unless the engineer directs or allows otherwise in writing.
- (4) Prequalify any proposed fly ash source as follows: The contractor shall obtain a copy of the certified report of tests or analysis made by a qualified independent laboratory, recognized by the department under 501.2.2, showing full and complete compliance with the above specification from the fly ash manufacturer and furnish it to the engineer. Provide this report to the engineer at least 14 calendar days before using the fly ash.
- (5) The manufacturer shall retain test records for at least 5 years after completing the work, and provide these records upon request.

#### 501.2.6.2 Class C Ash

(1) Conform to ASTM C618 class C except limit the loss on ignition to a maximum of 2 percent.

#### 501.2.6.3 Class F Ash

(2) Furnish a class F fly ash from a source listed on the department's approved product list, and conform to ASTM C618 class F except limit the loss on ignition to a maximum of 2 percent.

#### 502.3.7.8 Floors

Replace paragraph sixteen with the following effective with the September 2016 letting:

(16) The finished bridge floor shall conform to the surface test specified in 415.3.10. The engineer will not direct corrective grinding without authorization from the department's bureau of structures.

#### 503.3.2.1.1 Tolerances

<u>Increase the "length of beam" max tolerance for prestressed concrete I-type girders from 3/4" to 1 1/2"</u> effective with the December 2016 letting:

#### PRESTRESSED CONCRETE I-TYPE GIRDERS

#### **Errata**

Make the following corrections to the standard specifications:

#### Throughout the contract:

Update all references to the construction rental rate "Blue Book" to reference "EquipmentWatch" rates.

#### 105.13.4 Content of Claim

- (1) Include the following 5 items in the claim.
  - 1. A concise description of the claim.
  - 2. A clear contractual basis for the claim. This should include reference to 104.2 on revisions to the contract and as appropriate, specific reference to contract language regarding the bid items in question.
  - 3. Other facts the contractor relies on to support the claim.
  - 4. A concise statement of the circumstances surrounding the claim and reasons why the department should pay the claim. Explain how the claimed work is a change to the contract work.
  - 5. A complete breakdown of the costs used to compile the claim. Include copies of all EquipmentWatch equipment rental rate sheets used, with the applicable number highlighted.

#### 109.4.5.5.1 General

(2) The department will pay for use of contractor-owned equipment the engineer approves for force account work at published rates. The department will pay the contractor expense rates, as modified in 109.4.5.5, given in EquipmentWatch Cost Recovery (formerly Rental Rate Blue Book). Base all rates on revisions effective on January 1 for all equipment used in that calendar year.

http://equipmentwatch.com/estimator/

#### 109.4.5.5.2 Hourly Equipment Expense Rates (Without Operators)

(1) The contractor shall determine, and the department will confirm, hourly equipment expense rates as follows:

 $HEER = [RAF \times ARA \times (R/176)] + HOC$ 

#### Where:

**HEER** = Hourly equipment expense rate.

**RAF** = EquipmentWatch regional adjustment factor.

**ARA** = EquipmentWatch age rate adjustment factor.

**R** = Current EquipmentWatch monthly rate.

**HOC** = EquipmentWatch estimated hourly operating cost.

(2) The EquipmentWatch hourly operating cost represents all costs of equipment operation, including fuel and oil, lubrication, field repairs, tires, expendable parts, and supplies.

#### 109.4.5.5.3 Hourly Equipment Stand-By Rate

(1) For equipment that is in operational condition and is standing-by with the engineer's approval, the contractor shall determine, and the department will confirm, the hourly stand-by rate as follows:

 $HSBR = RAF \times ARA \times (R/176) \times (1/2)$ 

#### Where:

**HSBR** = Hourly stand-by rate.

**RAF** = EquipmentWatch regional adjustment factor.

**ARA** = EquipmentWatch age rate adjustment factor.

**R** = Current EquipmentWatch monthly rate.

(2) The department will limit payment for stand-by to 10 hours or less per day up to 40 hours per week. The department will not pay the contractor for equipment that is inoperable due to breakdown. The department will not pay for idle equipment if the contractor suspends work or if the contractor is maintaining or repairing the equipment.

#### 109.4.5.5.4 Hourly Outside-Rented Equipment Rate

(1) If the contractor rents or leases equipment from a third party for force account work, the contractor shall determine, and the department will confirm, the hourly outside-rented equipment rate as follows:

#### HORER = HRI + HOC

Where:

**HORER** = Hourly outside-rented equipment rate

**HRI** = Hourly rental invoice costs prorated for the actual number of hours

that rented equipment is operated solely on force account work

**HOC** = EquipmentWatch hourly operating cost.

#### 109.2 Scope of Payment

Correct errata to clarify that work under the contract is included in payment unless specifically excluded.

- (2) The department will pay for the quantity of work acceptably completed and measured for payment as the measurement subsection for each bid item specifies. Within the contract provide means to furnish and install the work complete and in-place. Payment is full compensation for everything required to perform the work under the contract including, but not limited to, the work elements listed in the payment subsection. Payment also includes all of the following not specifically excluded in that payment subsection:
  - 1. Furnishing and installing all materials as well as furnishing the labor, tools, supplies, equipment, and incidentals necessary to perform the work.
  - 2. All losses or damages, except as specified in 107.14, arising from one or more of the following:
    - The nature of the work.
    - The action of the elements.
    - Unforeseen difficulties encountered during prosecution of the work.
  - 3. All insurance costs, expenses, and risks connected with the prosecution of the work.
  - 4. All expenses incurred because of an engineer-ordered suspension, except as specified in 104.2.2.3.
  - 5. All infringements of patents, trademarks, or copyrights.
  - 6. All other expenses incurred to complete and protect the work under the contract.

#### 204.3.2.2.1 General

Correct errata by removing the reference to 490 which was deleted effective with the 2017 spec.

(1) Under the Removing Pavement bid item, remove concrete pavements, concrete alleys, concrete driveways, or rigid base including all surfaces or other pavements superimposed on them.

#### 657.2.2.1.1 General

Correct errata by eliminating the reference to department provided arms in the last sentence.

(1) Furnish shop drawings as specified in 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient detail to allow satisfactory review and show the outside diameters of the pole at the butt, top, and splice locations the plans show. Show the width, depth, length, and thickness of all material, and list pertinent ASTM specification designations and metal alloy designations together with the tensile strength of metallic members. Provide tightening procedures for arm-to-pole connections on the shop drawings.

#### 657.2.2.1.4 Poles Designed Under Legacy Standards

Correct errata by deleting the entire subsection to eliminate redundant language.

#### 657.2.2.2 Trombone Arms

Correct errata by changing the reference from 657.2.2.1.3 to 657.2.2.1.2.

(1) Design aluminum trombone arms as specified in 657.2.2.1.2 based on the completed maximum loading configuration the plans show. Furnish shop drawings conforming to 657.2.2.1.1 that show the width, depth, length, and thickness of all members. Also list the ASTM alloy designation and strength of each aluminum member on the shop drawings.

#### **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.

## 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, as well as 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 Tess Mulrooney at 608-267-4489 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 send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

Page 1 of 1

### REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- Implementation of Clean Air Act and Federal Water Pollution Control Act
- Compliance with Governmentwide Suspension and Debarment Requirements
- 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 designbuild 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.
- 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 nonminority 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 <a href="Form FHWA-1391">Form FHWA-1391</a>. 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 federallyassisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

#### 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

- b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..
- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
  - (i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
  - (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
  - (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
- (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

- **5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- **6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- **7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- 9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

#### 10. Certification of eligibility.

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

### V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- 1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
- 3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.
- **4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

#### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

- 1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).
- a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
- 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 (<a href="https://www.epls.gov/">https://www.epls.gov/</a>), 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 (<a href="https://www.epls.gov/">https://www.epls.gov/</a>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

#### Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

### XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
- a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

## ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

- 1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:
- a. To the extent that qualified persons regularly residing in the area are not available.
- b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
- c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.
- 2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.
- 3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.
- 4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.
- 5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

#### **Non-discrimination Provisions**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- **1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- **2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
- **3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
- **4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- **5. Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
  - a. Withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. Cancelling, terminating, or suspending a contract, in whole or in part.

**6. Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

#### **Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

#### **SEPTEMBER 2002**

### NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

- 1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
- 2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

#### **Goals for Minority Participation for Each Trade:**

_County_	<u>%</u>	_County_	_%_	_County_	<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

1 of 1

# 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 HIGHWAYS AND TRANSPORTATION FACILITIES

# SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

- I. Wage Rates, Hours of labor and payment of Wages
- II. Payroll Requirements
- III. Postings at the Site of the Work
- IV. Affidavits
- V. Wage Rate Redistribution
- VI. Additional Classifications

# I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in 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 shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

# II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

## 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 place at the site of work:

- a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.
- b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)
- c. A copy of the contractor's Equal Employment Opportunity Policy.
- d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

## IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

## V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

- 1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.
- 2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.
- 3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.
- 4. The unlisted classification must be commonly employed in the area where the project is located.
- 5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.
- 6. The request should be made prior to the actual performance of the work by the unlisted classification.
- 7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.
- 8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

## ANNUAL PREVAILING WAGE RATE DETERMINATION FOR ALL STATE HIGHWAY PROJECTS CLARK COUNTY

Compiled by the State of Wisconsin - Department of Workforce Development for the Department of Transportation
Pursuant to s. 103.50, Stats.
Issued on May 1, 2016

**CLASSIFICATION:** Contractors are required to call the Department of Workforce Development if there are any questions regarding the proper trade or classification to be used for any worker on a public works project.

**OVERTIME:** Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

**FUTURE INCREASE:** If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

**PREMIUM PAY:** If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

**SUBJOURNEY:** Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS \$	TOTAL \$
Delalia and Diaglata and Otana and and			
Bricklayer, Blocklayer or Stonemason	31.55	18.52	50.07
Carpenter	33.02	17.12	50.14
Future Increase(s): Add \$1.42/hr on 6/1/2016.  Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate of Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	n Sunday, New Ye	ear's Day, Memor	ial Day,
Cement Finisher	34.16	18.90	53.06
Future Increase(s): Add \$1.75 on 6/1/16.  Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic random Day, Independence Day, Labor Day, Thanksgiving Day & Christmas I Department of Transportation or responsible governing agency require artificial illumination with traffic control and the work is completed after	Day. 2) Add \$1.40/ res that work be p	hr when the Wisc erformed at night	consin
Electrician	29.20	17.36	46.56
Fence Erector	35.62	0.00	35.62
Ironworker	32.50	20.58	53.08
Line Constructor (Electrical)	40.81	19.02	59.83
Painter	29.87	18.79	48.66
Pavement Marking Operator	30.00	18.27	48.27
Piledriver	20 11	21.09	51.20
Roofer or Waterproofer	30.40	2.23	32.63
Teledata Technician or Installer	22.50	12.74	35.24
Tuckpointer, Caulker or Cleaner	31.12	18.69	49.81
Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ON	LY 36.73	15.92	52.65
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	' 32.65	16.12	48.77
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28

CLARK COUNTY Page 2

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	<u> </u>		<b>\$</b>
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.09	39.62
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72
TRUCK DRIVERS			
Single Axle or Two Axle	36.72	21.15	57.87
Three or More Axle	25.78	18.96	44.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate Independence Day, Labor Day, Thanksgiving Day & Christmas Day.		ar's Day, Memor 	ial Day,
Articulated, Euclid, Dumptor, Off Road Material Hauler	30.82	21.85	52.67
Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic r Day, Independence Day, Labor Day, Thanksgiving Day & Christmas See DOT'S website for details about the applicability of this night wo http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/pre	rate on Sunday, New Day. 2) Add \$1.50/hork premium at: evailing- wage- com	nr night work pre	mium.
Pavement Marking Vehicle Shadow or Pilot Vehicle	25.20	18.31	42.42
Truck Mechanic	<u>25.26</u> 	<u></u>	43.59
LABORERS			
General Laborer Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 0 Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or to operated), chain saw operator and demolition burning torch laborer; and luteman), formsetter (curb, sidewalk and pavement) and strike of powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and gray DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, Independence Day, Labor Day, Thanksgiving Day & Christmas Day, involving temporary traffic control setup, for lane and shoulder closu conditions is necessary as required by the project provisions (including such time period).	amper operator (me Add \$.15/hr for bitu off man; Add \$.20/hi ade specialist; Add \$ , New Year's Day, W 2) Add \$1.25/hr for res, when work und	minous worker ( for blaster and 5.45/hr for pipela lemorial Day, work on projects ler artificial illumi	yer. Sination
Asbestos Abatement Worker	24.92	15.12	40.04
Landscaper	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 0 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic r Day, Independence Day, Labor Day, Thanksgiving Day & Christmas involving temporary traffic control setup, for lane and shoulder closu conditions is necessary as required by the project provisions (including such time period).	6/01/2017 cate on Sunday, Nev Day. 2) Add \$1.25/f res, when work und	nr for work on pr ler artificial illum	ojects ination
Flagperson or Traffic Control Person Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 0 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic r Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Department of Transportation or responsible governing agency requ artificial illumination with traffic control and the work is completed aft	ate on Sunday, New Day. 2) Add \$1.25/bires that work be pe	nr when the Wisc erformed at night	consin
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	12.00	0.00	12.00
Railroad Track Laborer	15.00	4.21	19.21

CLARK COUNTY Page 3

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS \$	TOTAL \$
HEAVY EQUIPMENT OPERATORS	<b>V</b>	<b></b>	¥
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower Derrick, With or Without Attachments, With a Lifting Capacity of Over 10 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 L Crane With Boom Dollies; Traveling Crane (Bridge Type).  Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/20 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic ra Day, Independence Day, Labor Day, Thanksgiving Day & Christmas E See DOT'S website for details about the applicability of this night work http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/previous control of the control of t	or 0 bs., 17. te on Sunday, New Day. 2) Add \$1.50/h k premium at:	r night work pre	
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. of Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.  Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/20 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rand Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Esee DOT'S website for details about the applicability of this night work http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prev	or 37.77 r or er; te on Sunday, New Day. 2) Add \$1.50/h k premium at:	21.85 Year's Day, Me Ir night work pre	
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Scre Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vlbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutt Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grupmp; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor) Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid F Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Wind & A- Frames.	37.27  ed;  ter  Tub  out  );  Rig;	21.85	59.12

Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS \$	TOTAL \$
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rat Day, Independence Day, Labor Day, Thanksgiving Day & Christmas D See DOT'S website for details about the applicability of this night work <a href="http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prev">http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prev</a>	ay. 2) Add \$1.50/h premium at:	r night work pre	
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industria Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performi Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Je Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.  Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2016 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rat Day, Independence Day, Labor Day, Thanksgiving Day & Christmas D See DOT'S website for details about the applicability of this night work http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prev	ng eep he 17. ee on Sunday, New ay. 2) Add \$1.50/h	r night work pre	
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machin Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or We Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.  Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2016 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rat Day, Independence Day, Labor Day, Thanksgiving Day & Christmas D See DOT'S website for details about the applicability of this night work http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prev	ne); ell 17. e on Sunday, New ay. 2) Add \$1.50/h premium at:	r night work pre	
Fiber Optic Cable Equipment.	18.00	1.56	19.56

### SUPERSEDES DECISION WI20120010 U. S. DEPARTMENT OF LABOR (DAVIS-BACON ACT, MINIMUM WAGE RATES)

Truck Drivers:

Three or More Axles; Euclids, Dumptor &

Eringo

STATE: Wisconsin

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

		Basic Hourly	Fringe
LABORE	RS CLASSIFICATION:	Rates	<u>Benefits</u>
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 (Shovele	er.	
	Loader, Utility Man); Batch Truck Dumper; or Cement I	,	
	Bituminous Worker; (Dumper, Ironer, Smoother, Tampe	er);	
	Concrete Handler	\$30.67	16.55
Group 2:	Air Tool Operator; Joint Sawer and Filler (Pavement);		
	Vibrator or Tamper Operator (Mechanical Hand Operate	ed);30.77	16.55
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter		
	(Curb, Sidewalk, and Pavement); Strike Off man	30.82	16.55
Group 4:	Line and Grade Specialist	31.02	16.55
Group 5:	Blaster and Powderman	30.87	16.55
Group 6:	Flagperson; Traffic Control	27.30	16.55

DATE: October 7, 2016

Fringe

**Benefits** 

Basic Hourly

Rates

Notes: Welders receive rate prescribed for craft performing operation to which welding is incidental. 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 (29 CFR, 5.5(a)(1)(ii)). Includes Modification #0 dated January 8, 2016; Modification #1 dated January 29, 2016; Modification #2 dated February 26, 2016; Modification #3 dated March 11, 2016; Modification #4 dated April 8, 2016; Modification #5 dated June 17, 2016; Modification #6 dated July 1, 2016; Modification #7 dated July 22, 2016; Modification #8 dated July 29, 2016; Modification #9 dated August 19, 2016; Modification #10 dated August 26, 2016; Modification #11 dated September 2, 2016; Modification #12 dated September 30, 2016; Modification #13 dated October 7, 2016.

### CLASSES OF LABORER AND MECHANICS

5		
Bricklayer		
Carpenter	30.48	15.80
Millwright		
Piledriverman		
Ironworker	35.50	23.45
Cement Mason/Concrete Finisher	35.07	19.75
Electrician		See Page 3
Line Construction		•
Lineman	42.14	32% + 5.00
Heavy Equipment Operator	40.03	32% + 5.00
Equipment Operator	33.71	32% + 5.00
Heavy Groundman Driver		
Light Groundman Driver		
Groundsman		
Painters	24.39	11.72
Well Drilling:		
Well Driller	16.52	3.70

### SUPERSEDES DECISION WI20120010 U. S. DEPARTMENT OF LABOR (DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

POWER EQUIPMENT OPERATORS CLASSIFICATION:	Basic Hourly <u>Rates</u>	Fringe <u>Benefits</u>	POWER EQUIPMENT OPERATORS CLASSIFICATION: (Continued)	Basic Hourly <u>Rates</u>	Fringe <u>Benefits</u>
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	\$39.27	\$21.80	(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);		
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 jib lengths measuring 175 feet or less, and backhoes (excavators) having a manufacturer's rated capacity of 3 cu. yds. and over, caisson rigs, pile driver, dredge operator, dredge engineer	\$38.77	\$21.80	tugger; boatmen; winches and A-frames; post driver; material hoist operator	\$38.27	\$21.80
Group 3: Mechanic or welder - heavy duty equipment, cranes with a lifting capacity of 25 tons or less, concrete breaker (manual or remote); vibrator/sonic concrete			machine; burlap machine; texturing machine; tractor, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$38.01	\$21.80
breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pavement spreader - heavy duty (rubber tired); concrete spreader and distributor, automatic subgrader (concrete); concrete grinder and planing machine; concrete slipform curb and gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi and over); bridge paver; concrete conveyor system; concrete pump; stabilizing			Group 5: Air compressor; power pack; vibratory 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);		
mixer (self propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter and grooving machine; milling machine; screed (bituminous paver); asphalt heater,			drilling machine helper		\$21.80 \$21.80
planer and scarifier; backhoes (excavators) having a manufacturers rated capacity of under 3 cu. yds.; grader or motor patrol; tractor			Premium Pay: EPA Level "A" protection - \$3.00 per hour EPA Level "B" protection - \$2.00 per hour EPA Level "C" protection - \$1.00 per hours		

DATE: October 7, 2016

## SUPERSEDES DECISION WI20120010 U. S. DEPARTMENT OF LABOR (DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

Area3-

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

TREMPEALEAU, VERNON and WASHBURN COUNTIES

FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)

**Benefits** LABORERS CLASSIFICATION: Rates Area 4 -BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausauke and area south thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West Electricians boundary of Oconto County), SHAWANO (except area North of Townships of Aniwa and Area 1 \$30.68 17.28 Hutchins) COUNTIES. Area 2: Electricians..... 32.00 19.28 Area 5 -ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Area 3: Electrical contracts under \$130,000 ..... 28.96 18.26 Wausaukee), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Area North of the townships of Aniwa and Electrical contracts over \$130,000 ..... 31.16 18.34 29.50% + 9.57 Hutchins), VILAS AND WOOD COUNTIES 30.50 Area 4: ..... 28.96 24.85% + 9.70 Area 5 Area 6 ..... 37.02 29%+9.77 Area 6 -KENOSHA COUNTY Area 8 DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Area8-32.45 26.10% + 10.56 Electricians..... township), ROCK and WALWORTH COUNTIES Area 9: Electricians..... 36.50 20.39 Area 9 -COLUMBIA, DANE, DODGE, (area west of Hwy. 26, except Chester & Emmet Townships), 29.64 20.54 Area 10 GREEN LAKE (except townships of Berlin, Seneca and St. Marie), IOWA, MARQUETTE 25.05 Area 11 ..... 34.92 (except townships of Neshkoka, Crystal Lake, Newton and Springfield), and SAUK COUNTIES Area 12 ..... 34.98 19.89 36.01 24.00 Area 13 ..... Area 10 -CALUMET (Township of New Holstein), DODGE (East of Hwy, 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES Teledata System Installer Area 14 Area 11 -DOUGLAS COUNTY Installer/Technician ..... 24.35 13.15 Area 12 -RACINE (except Burlington township) COUNTY Sound & Communications Area 15 Area 13 -MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES 14.84 Installer 16.47 26.00 17.70 Technician..... Area 14 -Statewide. CALUMET (except township of New Holstein), GREEN LAKE Area 1 -Area 15 -DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (N. part, including Townships of Berlin, St. Marie and Seneca), (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, MARQUETTE (N. part, including Townships of Crystal Lake, Neshkoro, Newton & AND WAUKESHA COUNTIES. Springfield), OUTAGAMIE, WAUPACA, WAUSHARA and WINNEBAGO COUNTIES. Area 2 -ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA. CLARK (except Mayville, Colby, Unity, Sherman, Fremont, Lynn and Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST. CROIX, SAWYER, TAYLOR,

DATE: October 7, 2016

## FEBRUARY 1999

# NOTICE TO BIDDERS WAGE RATE DECISION

The wage rate decision of the Secretary of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Secretary 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 omision 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. The higher of state or federal rate will apply.

Page 1 of 1

Wisconsin Department of Transportation PAGE: 1
DATE: 10/07/16
SCHEDULE OF ITEMS REVISED: SCHEDULE OF ITEMS

CONTRACT:	<pre>PROJECT(S):</pre>	<pre>FEDERAL ID(S):</pre>
20161213040	7040-01-73	WISC 2016500

LINE	!	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION   	DESCRIPTION   QUANTITY  -   AND UNITS		   DOLLARS  CTS
SECTI	ON 0001 Contract Items			
0010	201.0120 Clearing   	92.000		
0020	201.0220 Grubbing   	   100.000  ID	   	   
	203.0100 Removing Small  Pipe Culverts 	   3.000  EACH		
0040	203.0200 Removing Old  Structure (station) 01.  368+40	  LUMP 	  LUMP 	
	204.0100 Removing  Pavement 	20,185.000	   	
	204.0150 Removing Curb &  Gutter 	   11,973.000  LF	     	   
	204.0155 Removing  Concrete Sidewalk	5,322.000 SY	     	 
	204.0165 Removing  Guardrail 	   103.000  LF		
	204.0195 Removing  Concrete Bases	34.000   EACH	     	     
	204.0210 Removing  Manholes 	12.000  EACH	.	

# Wisconsin Department of Transportation PAGE: 2 DATE: 10/07/16

#### SCHEDULE OF ITEMS REVISED:

CONTRACT:

ONTRACT: PROJECT(S): FEDERAL ID(S): 20161213040 7040-01-73 WISC 2016500

LINE	!	APPRO	:	UNIT PR		BID AM	
NO	DESCRIPTION	QUANTI	:	DOLLARS		   DOLLARS	CTS
0110	204.0220 Removing Inlets   	   EACH	  34.000 				
0120	204.0245 Removing Storm  Sewer (size) 01.  12-Inch	   2!  LF	52.000    			   	
0130	204.0245 Removing Storm  Sewer (size) 02.  15-Inch	   4!  LF	  0.000  				
0140	204.0245 Removing Storm  Sewer (size) 03.  18-Inch	   2,20  LF	  06.000 				
0150	204.0245 Removing Storm  Sewer (size) 04.  24-Inch	   4!  LF	  95.000 				
0160	205.0100 Excavation  Common	   30,48  CY	  81.000 				
0170	205.0501.S Excavation,  Hauling, and Disposal of  Petroleum Contaminated  Soil	   70   TON	  00.000   			     	
0180	213.0100 Finishing  Roadway (project) 01.  7040-01-73	    EACH	1.000		•	   	
0190	305.0110 Base Aggregate  Dense 3/4-Inch 	   2,29	  00.000 				
0200	305.0120 Base Aggregate  Dense 1 1/4-Inch 	   23,63  TON	  25.000 		•		·
0210	312.0110 Select Crushed  Material	   24,6	  70.000 			     	

# Wisconsin Department of Transportation PAGE: 3 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

CONTRA	ACTOR :			
LINE NO	ITEM   DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE     DOLLARS   CTS	BID AMOUNT     DOLLARS  CTS
	416.0160 Concrete  Driveway 6-Inch	   1,770.000  SY	 	
0230	455.0605 Tack Coat   	   195.000  GAL	   	   
	460.2000 Incentive  Density HMA Pavement 	   510.000  DOL	   1.00000 	   510.00 
	460.5223 HMA Pavement 3  LT 58-28 S 	   475.000  TON		     .
	460.5244 HMA Pavement 4  LT 58-34 S 	   270.000  TON		   
	460.6223 HMA Pavement 3  MT 58-28 S 	   30.000  TON	  -  -	   
	460.6244 HMA Pavement 4  MT 58-34 S 	   12.000  TON	     	     
0290	465.0120 Asphaltic  Surface Driveways and  Field Entrances	   135.000  TON	   	     
	465.0315 Asphaltic  Flumes 	   32.000  SY		   
0310	513.2050.S Railing Pipe 	   390.000  LF	     	     
	520.8000 Concrete   Collars for Pipe	   13.000  EACH	     	   

# Wisconsin Department of Transportation PAGE: 4 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

LINE	 	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION	QUANTITY AND UNITS	DOLLARS   CTS	   DOLLARS  CTS
0330	521.1708 Apron Endwalls  for Pipe Arch Sloped  Side Drains Steel  35x24-Inch 4 to 1	   2.000  EACH		
	522.0115 Culvert Pipe  Reinforced Concrete  Class III 15-Inch	   40.000  LF	 	
	522.1015 Apron Endwalls  for Culvert Pipe  Reinforced Concrete  15-Inch	   2.000  EACH		
	522.1030 Apron Endwalls  for Culvert Pipe  Reinforced Concrete  30-Inch	   2.000  EACH		
0370	529.0335 Pipe Arch  Corrugated Steel  Aluminum Coated  35x24-Inch	   30.000  LF 	   	
0380	601.0110 Concrete Curb  Type D 	   29.000  LF	   	
	601.0409 Concrete Curb &  Gutter 30-Inch Type A 	   10,587.000  LF	 	
0400	601.0411 Concrete Curb &  Gutter 30-Inch Type D 	   1,434.000  LF	   	
	602.0405 Concrete  Sidewalk 4-Inch 	   58,641.000  SF	 	
	602.0415 Concrete  Sidewalk 6-Inch 	2,300.000		

# Wisconsin Department of Transportation PAGE: 5 DATE: 10/07/16

#### REVISED: SCHEDULE OF ITEMS

CONTRACT:

ONTRACT: PROJECT(S): FEDERAL ID(S): 20161213040 7040-01-73 WISC 2016500

LINE	!	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION 	QUANTITY AND UNITS	DOLLARS   CTS	DOLLARS CTS
	602.0515 Curb Ramp  Detectable Warning Field  Natural Patina	   420.000  SF	   	     
0440	602.1500 Concrete Steps   	   310.000  SF		
0450	606.0100 Riprap Light   	   11.000  CY		     
0460	606.0200 Riprap Medium   	   14.000  CY		   
0470	606.0300 Riprap Heavy 	   5.000  CY		     
0480	608.0315 Storm Sewer  Pipe Reinforced Concrete  Class III 15-Inch	   922.000  LF	     	     
	608.0318 Storm Sewer  Pipe Reinforced Concrete  Class III 18-Inch	   402.000  LF	   	       .
	608.0324 Storm Sewer  Pipe Reinforced Concrete  Class III 24-Inch	   2,553.000  LF	   	   
	608.0330 Storm Sewer  Pipe Reinforced Concrete  Class III 30-Inch	   457.000  LF		
	608.0415 Storm Sewer  Pipe Reinforced Concrete  Class IV 15-Inch	   512.000  LF	     	     
	608.0418 Storm Sewer  Pipe Reinforced Concrete  Class IV 18-Inch	   415.000  LF		     

# Wisconsin Department of Transportation PAGE: 6 DATE: 10/07/16

REVISED:

### SCHEDULE OF ITEMS

PROJECT(S): FEDERAL ID(S): 7040-01-73

CONTRACT: 20161213040

WISC 2016500

CONTRACTOR : LINE DESCRIPTION NO ------|608.0430 Storm Sewer | 0550|Pipe Reinforced Concrete | \_\_\_\_\_\_ 611.0530 Manhole Covers 21.000 | |EACH | 0570 Type J |611.0624 Inlet Covers 0580 Type H 611.0639 Inlet Covers 21.000 | |EACH 0590 Type H-S 611.0642 Inlet Covers | 5.000 |EACH 0600 Type MS 611.1005 Catch Basins 1.000 EACH 0610 5-FT Diameter 611.1006 Catch Basins 2.000 | EACH 0620|6-FT Diameter |611.2004 Manholes 4-FT | 12.000| |EACH | 0630 Diameter |611.2005 Manholes 5-FT | | 8.000| |EACH | 0640|Diameter

# Wisconsin Department of Transportation PAGE: 7 DATE: 10/07/16

#### REVISED: SCHEDULE OF ITEMS

LINE	!	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION 	QUANTITY AND UNITS	DOLLARS   CTS	DOLLARS CTS
	611.2006 Manholes 6-FT  Diameter 	   1.000  EACH	       .	     
0660	611.3230 Inlets 2x3-FT   	   46.000  EACH	     	       .
	611.3901 Inlets Median 1  Grate 	3.000   EACH	       .	       .
	611.3902 Inlets Median 2  Grate 	   1.000  EACH	     	       .
0690	611.9800.S Pipe Grates   	   2.000  EACH	     	       .
	612.0406 Pipe Underdrain  Wrapped 6-Inch 	   618.000  LF	     	       .
	614.0305 Steel Plate  Beam Guard Class A 	   12.500  LF	       	     
0720	614.0345 Steel Plate  Beam Guard Short Radius 	   50.000  LF	     	       .
0730	614.0390 Steel Plate  Beam Guard Short Radius  Terminal	   2.000  EACH		
0740	618.0100 Maintenance And  Repair of Haul Roads  (project) 01.  7040-01-73	I .	       	     
0750	619.1000 Mobilization     	   1.000  EACH	       .	       .

# Wisconsin Department of Transportation PAGE: 8 DATE: 10/07/16

REVISED:

# SCHEDULE OF ITEMS

CONTRACT:

ONTRACT: PROJECT(S): FEDERAL ID(S): 20161213040 7040-01-73 WISC 2016500

LINE		APPROX.	UNIT PRICE	BID AMOUNT	
NO	DESCRIPTION	QUANTITY AND UNITS	DOLLARS   CTS	   DOLLARS  CTS	
	621.0100 Landmark  Reference Monuments 	   8.000  EACH			
0770	624.0100 Water   	   330.000  MGAL	 	     	
0780	625.0100 Topsoil   	   9,926.000  SY		     	
0790	628.1504 Silt Fence   	   1,086.000  LF			
	628.1520 Silt Fence  Maintenance 	   1,644.000  LF			
	628.1905 Mobilizations Erosion Control	   10.000  EACH			
0820	628.1910 Mobilizations  Emergency Erosion  Control	   6.000  EACH		     	
	628.2004 Erosion Mat  Class I Type B 	   326.000  SY			
	628.2008 Erosion Mat Urban Class I Type B	   9,735.000  SY			
	628.7005 Inlet  Protection Type A 	   51.000  EACH		     	
	628.7010 Inlet  Protection Type B 	   3.000  EACH			

# Wisconsin Department of Transportation PAGE: 9 DATE: 10/07/16 SCHEDULE OF ITEMS REVISED:

# SCHEDULE OF ITEMS

REVISED:

LINE	TITEM DESCRIPTION	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION	QUANTITY AND UNITS	!	rs   Dollars   CTS
	628.7015 Inlet  Protection Type C 	   51.000  EACH		
0880	628.7504 Temporary Ditch  Checks 	   60.000  LF	     	
	628.7555 Culvert Pipe  Checks 	20.000   EACH		
0900	628.7560 Tracking Pads   	   4.000  EACH	 	
0910	628.7570 Rock Bags   	   50.000  EACH	 	
0920	629.0210 Fertilizer Type  B 	   6.000  CWT		
	630.0140 Seeding Mixture  No. 40 	   179.000  LB		
	634.0614 Posts Wood  4x6-Inch X 14-FT 	   42.000  EACH	     	
	634.0616 Posts Wood  4x6-Inch X 16-FT 	   33.000  EACH		
	634.0618 Posts Wood  4x6-Inch X 18-FT 	   6.000  EACH	       .	   
0970	634.0818 Posts Tubular  Steel 2x2-Inch X 18-FT 	   2.000  EACH	       .	

# Wisconsin Department of Transportation PAGE: 10 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

LINE		!	PPROX.	UNIT P	RICE	BID AM	OUNT
NO	DESCRIPTION		ANTITY D UNITS	DOLLARS	CTS	   DOLLARS	CTS
	637.2210 Signs Type II  Reflective H 	    SF	566.660	   			
	637.2230 Signs Type II  Reflective F	    SF	173.000	   		   	
	638.2602 Removing Signs  Type II 	    EACH	85.000	   		   	
	638.3000 Removing Small  Sign Supports	    EACH	61.000	   		   	
	641.8100 Overhead Sign  Support (structure) 01.  S-10-012	LUMP		  LUMP 		   	
1030	641.8100 Overhead Sign  Support (structure) 02.  S-10-013	LUMP		  LUMP 		   	
1040	641.8100 Overhead Sign  Support (structure) 03.  S-10-011	LUMP		  LUMP 		   	
1050	642.5201 Field Office  Type C 	    EACH	1.000	   		   	
	643.0100 Traffic Control  (project) 01.  7040-01-73	    EACH	1.000	     		   	
1070	643.0300 Traffic Control  Drums 	    DAY	4,480.000	   		   	
1080	643.0420 Traffic Control  Barricades Type III 	    DAY	4,884.000	     		   	

# Wisconsin Department of Transportation PAGE: 11 DATE: 10/07/16 SCHEDULE OF ITEMS REVISED:

# SCHEDULE OF ITEMS

REVISED:

CONTRACT: PROJECT(S): FEDERAL ID(S): 20161213040 7040-01-73 WISC 2016500

LINE	1	APPR	!	UNIT PR		BID AM	
NO	DESCRIPTION	QUANT AND U		DOLLARS		DOLLARS	CTS
1090	643.0705 Traffic Control  Warning Lights Type A 	1	    768.000 			   	
1100	643.0900 Traffic Control  Signs 	   3,  DAY	  338.000 			   	
	643.0920 Traffic Control  Covering Signs Type II 	      EACH	   15.000 		•	   	
	643.1050 Traffic Control  Signs PCMS 	    DAY	   126.000 				
1130	643.2000 Traffic Control  Detour (project) 01.  7040-01-73	    EACH	1.000				
1140	643.3000 Traffic Control  Detour Signs 	   13,  DAY	  578.000 				
	644.1601.S Temporary  Curb Ramp 	    EACH	12.000				
1160	644.1616.S Temporary  Pedestrian Safety Fence 	   3,  LF	000.000				
1170	645.0120 Geotextile Type  HR 	    SY	60.000			 	
	646.0106 Pavement  Marking Epoxy 4-Inch 	   18,  LF	  127.000 	<b></b>	•	<b></b>   	
1190	647.0456 Pavement  Marking Curb Epoxy 	      LF	  509.000 			     	

# Wisconsin Department of Transportation PAGE: 12 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

LINE	ITEM	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION	QUANTITY   AND UNITS	DOLLARS CTS	DOLLARS CTS
	647.0566 Pavement Marking Stop Line Epoxy 18-Inch	   205.00  LF	0   .	       .
	647.0656 Pavement Marking Parking Stall Epoxy	   903.00  LF	0	       .
	647.0726 Pavement Marking Diagonal Epoxy 12-Inch	   416.00  LF	         	       .
1230	647.0766 Pavement Marking Crosswalk Epoxy 6-Inch	   3,764.00  LF	         	
	650.4000 Construction Staking Storm Sewer	   76.00  EACH	         	       .
	650.4500 Construction Staking Subgrade	   6,744.00  LF	    0    .	       .
	650.5000 Construction Staking Base	   945.00  LF	         	       .
	650.5500 Construction Staking Curb Gutter and Curb & Gutter	   1,435.00  LF	         	       .
	650.7000 Construction Staking Concrete Pavement	   5,799.00  LF	0	       .
1290	650.8500 Construction Staking Electrical Installations (project) 01. 7040-01-73	  LUMP 	  LUMP 	       

# Wisconsin Department of Transportation PAGE: 13 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

LINE	 	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION	QUANTITY AND UNITS	DOLLARS CT	'  'S   DOLLARS  CTS
1300	650.9910 Construction  Staking Supplemental  Control (project) 01.  7040-01-73	LUMP	LUMP	       
1310	650.9920 Construction  Staking Slope Stakes 		       .	
1320	652.0225 Conduit Rigid  Nonmetallic Schedule 40  2-Inch	   6,040.000  LF	)     .	
	652.0615 Conduit Special  3-Inch 	   235.000  LF	       .	
1340	654.0102 Concrete Bases  Type 2 	   2.000  EACH	)     .	.
1350	654.0230 Concrete  Control Cabinet Bases  Type L30	   1.000  EACH	       .	
1360	655.0610 Electrical Wire  Lighting 12 AWG 	2,499.000	       .	.
1370	655.0615 Electrical Wire  Lighting 10 AWG 	   12,712.000  LF	)     .	.
1380	655.0620 Electrical Wire  Lighting 8 AWG 	   19,068.000  LF	)     .	.
1390	656.0200 Electrical  Service Meter Breaker  Pedestal (location) 01.  376+62 LT	  LUMP 	LUMP	
1400	657.0310 Poles Type 3   	   2.000  EACH	       .	

# Wisconsin Department of Transportation PAGE: 14 DATE: 10/07/16 SCHEDULE OF ITEMS REVISED:

# SCHEDULE OF ITEMS

REVISED:

	ACTOR :						
LINE NO	ITEM   DESCRIPTION 	QU	PPROX. ANTITY D UNITS	UNIT PR  DOLLARS		BID AM0     DOLLARS	OUNT   CTS
1410	659.2130 Lighting  Control Cabinets 120/240  30-Inch	      EACH	1.000		· ·	<u>-</u>     	- <del>'</del>
1420	690.0150 Sawing Asphalt   	      LF	987.000	   		   	
1430	690.0250 Sawing Concrete   	      LF	830.000	   		   	
	715.0415 Incentive  Strength Concrete  Pavement	    DOL	8,601.000	1	.00000	   860	01.00
1450	ASP.1T0A On-the-Job  Training Apprentice at  \$5.00/HR	      HRS	2,400.000	5	.00000	   1200	00.00
1460	ASP.1T0G On-the-Job  Training Graduate at \$5.  00/HR	    HRS	990.000	5	.00000	   49! 	50.00
	SPV.0060 Special 01.  Remove Existing Lighting  Unit	    EACH	34.000			   	•
1480	SPV.0060 Special 02.  Pull Box Non-Conductive  24X42-Inch	    EACH	18.000			   	·
1490	SPV.0060 Special 03.  Decorative Light Unit -  Furnish And Install	    EACH	17.000			   	· 
1500	SPV.0060 Special 04.  Remove Existing Lighting  Control Cabinet	    EACH	1.000			   	·
1510	SPV.0060 Special 05.  Concrete Sediment Trap 	    EACH	1.000				· 

# Wisconsin Department of Transportation PAGE: 15 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

LINE	ITEM	APPROX.	UNIT PRICE	BID AMOUNT
NO	DESCRIPTION 	QUANTITY AND UNITS	DOLLARS   CTS	DOLLARS CT
	SPV.0060 Special 06.  Tracer Wire Terminal Box	   124.000  EACH		     
	SPV.0060 Special 07.  Sanitary Sewer Manhole  Frame And Cover And  Interior Seal	   22.000  EACH		     
1540	SPV.0060 Special 08.  Gate Valve, 10-Inch	   1.000   EACH		     
	SPV.0060 Special 09.  Gate Valve, 8-Inch 	   31.000  EACH	·	     
	SPV.0060 Special 10.  Gate Valve, 6-Inch 	   6.000  EACH		     
1570	SPV.0060 Special 11.  Hydrant Lead W/6-Inch  Lead & Valve	   17.000   EACH		     
	SPV.0060 Special 12.  Corporation Stop, 1-Inch	   78.000  EACH		     
	SPV.0060 Special 13.  Curb Stop & Box, 1-Inch	   78.000  EACH		     
	SPV.0060 Special 14. Connection To Existing Sanitary Sewer	   17.000   EACH	·	   
1610	SPV.0060 Special 15. Connection To Existing Water Main	   18.000  EACH		   
1620	SPV.0060 Special 16.  Remove Valve Box	34.000		

# Wisconsin Department of Transportation PAGE: 16 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

LINE	!	APPROX.	UNIT PR	BID AM	
NO	DESCRIPTION	QUANTITY AND UNITS	   DOLLARS	   DOLLARS	CTS
1630	SPV.0060 Special 17.  Remove Hydrant 	   13.000  EACH	   	   	
1640	SPV.0060 Special 18.  Removing Sanitary Sewer  Manholes	   18.000  EACH	     	     	
1650	SPV.0060 Special 19.  Decorative Street Light  Unit - Furnish Only	   1.000  EACH	   	   	
1660	SPV.0090 Special 01.  Storm Sewer Pipe PVC  4-Inch	   97.000  LF	   	   	
1670	SPV.0090 Special 02.  Sanitary Sewer, 15-Inch 	   152.000  LF	   	   	
1680	SPV.0090 Special 03.  Sanitary Sewer,12-Inch	   1,660.000  LF	   	   	
1690	SPV.0090 Special 04.  Sanitary Sewer, 10-Inch	   140.000  LF	   	   	
1700	SPV.0090 Special 05.  Sanitary Sewer, 8-Inch 	   3,017.000  LF	   	     	
1710	SPV.0090 Special 06.  Sanitary Sewer Lateral,  6-Inch	   4,141.000  LF	   	     	
1720	SPV.0090 Special 07.  Sanitary Sewer  Televising	   4,969.000  LF	   	   	
1730	SPV.0090 Special 08.  Water Main, 10-Inch 	   75.000  LF	     	     	

# Wisconsin Department of Transportation PAGE: 17 DATE: 10/07/16

# SCHEDULE OF ITEMS

REVISED:

CONTR	ACTOR :				
LINE NO	TTEM DESCRIPTION	APPROX.	UNIT PRICE	BID AMOUNT	
	 	AND UNITS	DOLLARS   CTS	DOLLARS  CTS	
1740	SPV.0090 Special 09.  Water Main, 8-Inch 	   5,959.000  LF			
1750	SPV.0090 Special 10.  Water Main, 6-Inch 	   341.000  LF		   	
1760	SPV.0090 Special 11.  Fluorocarbon Gaskets And  Polyethelen e Encasement  Of Water Main, 10-INCH	73.000		     	
1770	SPV.0090 Special 12.  Fluorocarbon Gaskets And  Polyethelen e Encasement  Of Water Main, 8-Inch	   553.000  LF	     	     	
1780	SPV.0090 Special 13.  Fluorocarbon Gaskets And  Polyethelen e Encasement  Of Water Main, 6-Inch	   55.000  LF	     	     	
1790	SPV.0090 Special 14.  Copper Service, 1-Inch	     2,342.000  LF	     		
1800	SPV.0090 Special 15.  Concrete Curb And Gutter  Cure And Seal Treatment	   11,805.000  LF		   	
1810	SPV.0105 Special 01.  Flashing Beacon, South  Street / Main Street	  LUMP 	  LUMP 		
	SPV.0105 Special 02.  Construction Staking  Concrete Pavement Joint  Layout	  LUMP 	  LUMP 	     	
1830	SPV.0105 Special 03.  Project Concrete Crack  Mitigation And Repair  Special	  LUMP 	  LUMP 	       	

# Wisconsin Department of Transportation PAGE: 18 DATE: 10/07/16 SCHEDULE OF ITEMS REVISED:

# SCHEDULE OF ITEMS

REVISED:

CONTRACT: PROJECT(S): FEDERAL ID(S): 20161213040 7040-01-73 WISC 2016500

LINE	!	APPROX.	UNIT PRICE		BID AMOUNT	
NO	DESCRIPTION	QUANTITY AND UNITS	DOLLARS	   CTS	DOLLARS	CTS
	SPV.0105 Special 04.  Concrete Ramp 	  LUMP 	  LUMP	   		
	SPV.0105 Special 05.  Flashing Beacon, Main  Street / South Street	  LUMP	  LUMP 			
1860	SPV.0105 Special 06.  Flashing Beacon, Main  Street / Elm Drive	  LUMP	LUMP	   		
	SPV.0105 Special 07.  Flashing Beacon, Elm  Drive / Main Street	  LUMP	  LUMP 	   		
1880	SPV.0105 Special 08.  Flashing Beacon, CTH K /  Elm Drive	  LUMP	LUMP			
1890	SPV.0165 Special 01.  Wall Concrete Panel MSE  LRFD/QMP Pilot	   1,865.000  SF	     	     		
	SPV.0165 Special 02.  Temporary Pedestrian  Hard Surface	   15,000.000  SF	     	.      		
1910	SPV.0180 Special 01.  Concrete Pavement 7  1/2-Inch Special	29,342.000  SY	     	     		
1920	SPV.0200 Special 01.  Sanitary Sewer Manhole 		     	     		
1930	SPV.0200 Special 02.  Sanitary Sewer Manhole  Outside Drop	   5.100  VF	   	     		
	   SECTION 0001 TOTAL		   			
	     TOTAL BID		   			

# PLEASE ATTACH SCHEDULE OF ITEMS HERE