

HIGHWAY WORK PROPOSAL

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

Proposal Number:

23

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Brown	4075-28-71	WISC 2014 269	Village of Wrightstown Fox River Bridge B-5-381	STH 96
Brown	4095-10-72	WISC 2014 270	High St. Village of Wrightstown Fox River - Shanty Road	STH 96

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, \$ 430,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: July 8, 2014 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time July 18, 2016	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 5 %	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Pavement removals, temporary pavement, clearing, grubbing, excavation common, borrow, base aggregate dense, storm sewer, HMA pavement, concrete pavement, concrete curb and gutter, concrete sidewalk, pavement marking, permanent signing, planting, lighting, removing old Structure B-5-736, Structures B-5-381, R-5-110, R-5-111, R-5-112, R-5-113.	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.

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

- (1) Obtain bidding proposals as specified in **section 102** of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:
 1. Electronic bid on the internet.
 2. Electronic bid on a printout with accompanying diskette or CD ROM.
 3. Paper bid under a waiver of the electronic submittal requirements.
- (2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.
- (3) The department will provide bidding information through the department's web site at <http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm>. The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at <http://www.bidx.com/> after 5:00 P.M. local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.
- (4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at <http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm> 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.

B Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 1. Have a properly executed annual bid bond on file with the department.
 2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in **102.6** and **102.9** of the standard specifications, submit the proposal on the internet as follows:

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

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

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at <http://www.dot.wisconsin.gov/business/engrserve/bid-letting-information.htm>. Use Expedite™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.
- (2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

- (3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.
- (4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.
- (5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

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

C Waiver of Electronic Submittal

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

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

(Signature of Attorney-in-Fact)

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

[illegible]

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

Special Provisions

Table of Contents

Article	Description	Page #
1.	General.....	5
2.	Scope of Work.	5
3.	Prosecution and Progress.	5
4.	Project Communication Enhancement Effort.	15
5.	Traffic.	15
6.	Holiday Work Restrictions.	21
7.	Utilities.....	21
8.	Other Contracts.	32
9.	Work by Others.	32
10.	Railroad Insurance and Coordination.	33
11.	Environmental Protection.	34
12.	Erosion Control.	35
13.	Erosion Control Structures.....	35
14.	Erosion Control, Winterization.....	35
15.	Environmental Protection, Emerald Ash Borer.	36
16.	Environmental Protection, Aquatic Exotic Species Control.....	39
17.	Environmental Protection, Dewatering.....	40
18.	Wetland Restoration.....	40
19.	Wetland Grade Restoration.	41
20.	Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.....	42
21.	Construction Over or Adjacent to Navigable Waters.	43
22.	Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.	43
23.	Public Convenience and Safety.	44
24.	Coordination with Businesses.....	44
25.	Excavation Common.....	45
26.	National Geodetic Survey Control Station.	45
27.	Notice to Contractor – Contamination Within Construction Limits.....	45
28.	Health and Safety Requirements for Workers Remediating Petroleum Contamination.....	46
29.	Notice to Contractor – Layout Information for Permitted Impact to Wetlands.....	47
30.	Notice to Contractor – Construction Staking for Railroad Crossing.	47
31.	Notice to Contractor - Causeways.	47
32.	Notice to Contractor – Removing Concrete.....	47
33.	Notice to Contractor - Survey Monument Coordination.	47
34.	Clearing and Grubbing.....	48
35.	Removing Old Structure Over Waterway With Minimal Debris Station 206'H'+00, Item 203.0600.S.01.....	48
36.	Removing Concrete Sidewalk.....	49
37.	Removing Guardrail.....	49

38.	Abandoning Sewer, Item 204.0291.S.	50
39.	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.	51
40.	Temporary Shoring, Item 206.6000.S.	57
41.	QMP Base Aggregate.	58
42.	Coloring Concrete Red, Item 405.0100.	66
43.	Protection of Concrete.	66
44.	Expansion Device, B-5-381.	66
45.	Expansion Device Modular B-5-381, Item 502.3110.S.01.	67
46.	Polymer Overlay, Item 509.5100.S.	71
47.	Railing Pipe, Item 513.2050.S.	77
48.	Concrete Staining B-5-381, Item 517.1010.S.01; R-5-110, Item 517.1010.S.02; R-5-111, Item 517.1010.S.03; R-5-112, Item 517.1010.S.04; R-5-113, Item 517.1010.S.05.	77
49.	Architectural Surface Treatment B-5-381, Item 517.1050.S.01; R-5-110, Item 517.1050.S.02; R-5-111, Item 517.1050.S.03.	80
50.	Wall Modular Block Mechanically Stabilized Earth, Item 532.0300.S.	81
51.	Driven Piles Using Pile Dynamic Analyzer.	90
52.	Manhole, Inlet, and Catch Basin Adjusting Rings.	91
53.	Cover Plates Temporary, Item 611.8120.S.	91
54.	Pipe Grates, Item 611.9800.S.	92
55.	Fence Safety, Item 616.0700.S.	93
56.	Landscape Planting Surveillance and Care Cycles.	94
57.	Furnishing and Planting Plant Materials.	94
58.	Wood and Tubular Steel Sign Posts.	95
59.	Ground Water Monitoring Well.	95
60.	Traffic Control.	96
61.	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch, Item 646.0843.S.	97
62.	General Requirements for Electrical Work.	99
63.	Bridge Lighting Systems, General.	100
64.	Electrical Service.	100
65.	Electrical Service Meter Breaker Pedestal, Bridge Lighting Cabinet W, Item 656.0200.01.	101
66.	Anchor Assemblies Light Poles on Structures, Item 657.6005.S.	101
67.	Crack and Damage Survey, Item 999.1500.S.	102
68.	Subsoiling, Item SPV.0005.01.	104
69.	Coloring Concrete Buff, Item SPV.0035.01.	104
70.	Aggregate Filter, Item SPV.0035.02.	105
71.	Temporary Crosswalk Access, Item SPV.0045.01.	106
72.	Frost Proof Yard Hydrant, 6-Foot, Item SPV.0060.01.	108
73.	Removing Cover Plate, Item SPV.0060.02.	109
74.	Adjusting Manhole Covers with Rubber Rings, Item SPV.0060.03.	109
75.	Adjusting Sanitary Manhole Cover, Item SPV.0060.04.	111
76.	Adjusting Water Service Curb Stop, Item SPV.0060.05.	111
77.	Adjusting Water Valve Box, Item SPV.0060.06.	112

78.	Clearance Gauge, Item SPV.0060.07.	113
79.	Flexible Coupling, Item SPV.0060.08.....	113
80.	Sun Wetland Planting, Item SPV.0060.09.....	114
81.	Wetland Tree Planting, Item SPV.0060.10.....	116
82.	Wetland Shrub Planting, Item SPV.0060.11.	116
83.	Wildlife Structures, Item SPV.0060.12.	117
84.	Special Sign Post and Bracket, Item SPV.0060.13.....	118
85.	Catch Basin Special, Item SPV.0600.14.....	120
86.	Anchor Bolt Assembly Sign Bridge, Item SPV.0060.15.....	120
87.	Anchor Bolt Assembly Signs, Item SPV.0060.16.....	121
88.	Anchor Bolt Cover Shroud, Item SPV.0060.17.....	121
89.	Pavement Marking Grooved Contrast Preformed Thermoplastic Arrows, Type 2, Item SPV.0060.18; Pavement Marking Grooved Contrast Preformed Thermoplastic Words, Item SPV.0060.19.....	122
90.	Bridge Lighting Pull Boxes, SPV.0060.20.	126
91.	Bridge Lighting Control Cabinet, Item SPV.0060.21.....	126
92.	Concrete Control Cabinet Base, Item SPV.0060.22.....	129
93.	Lighting Control Cabinet Black, Item SPV.0060.23.....	130
94.	Transformer Bases Breakaway 11 ½-Inch Bolt Circle Black, Item SPV.0060.24.	130
95.	Poles Type 5 Aluminum Black, Item SPV.0060.25.	131
96.	Luminaire Arms Truss Type 4 ½-Inch Clamp 12-FT Black, Item SPV.0060.26.....	132
97.	Bridge Lighting Units, Item SPV.0060.27.....	133
98.	LED Luminaire, LED-B Black, Item SPV.0060.28.....	134
99.	Pile Dynamic Analyzer (PDA) Testing, Item SPV.0060.29; Pile Dynamic Analyzer (PDA) Restriking, Item SPV.0060.30, CAse Pile Wave Analysis Program (CAPWAP) Evaluation, Item SPV.0060.31.	135
100.	Sedimentation Basin, Item SPV.0060.32.....	139
101.	Street Sweeping, Item SPV.0075.01.....	140
102.	Pre-boring Unconsolidated Material Obstruction B-5-381, Item SPV.0075.02; Pre-boring Unconsolidated Material Obstruction R-5-110, Item SPV.0075.03.....	140
103.	Bar Steel Reinforcement HS Stainless Bridges, Item SPV.0085.01.....	142
104.	Mycorrhizal Inoculant, Item SPV.0085.02.....	146
105.	Sun Wetland Seeding, Item SPV.0085.03.....	147
106.	Shade Wetland Seeding, Item SPV.0085.04.....	149
107.	Saw Cut Concrete, Item SPV.0090.01.....	151
108.	Concrete Curb and Gutter HES 30-Inch Type A, Item SPV.0090.02.	151
109.	Fence Decorative Bridge, Item SPV.0090.03.....	152
110.	Heavy Duty Silt Fence, Item SPV. 0090.04.	155
111.	Pavement Marking Grooved Preformed Thermoplastic, Yield Line, Item SPV.0090.05; Pavement Marking Grooved Contrast Preformed Thermoplastic, Crosswalk, Item SPV.0090.06.....	156
112.	Concrete Pavement Joint Layout, Item SPV.0105.01.....	160
113.	Railing Steel Type C2 Galvanized B-5-381, Item SPV.0105.02; Railing Steel Type C2 Galvanized R-5-110, Item SPV.0105.03.	160

114.	Railing Steel Type C2A Galvanized Pedestrian R-5-111, Item SPV.0105.04; Railing Steel Type C2B Galvanized Pedestrian R-5-112, Item SPV.0105.05; Railing Steel Type C2C Galvanized Pedestrian R-5-113, Item SPV.0105.06.	164
115.	Open Drain Drip Plate, Item SPV.0105.07.....	167
116.	Pedestrian Access Cover Plate, Item SPV.0105.08.	167
117.	Traffic Control for the Fox River Recreational Vehicles, Item SPV.0105.09.....	168
118.	Temporary Haul Road Access for Structure Construction, Item SPV.0105.10.....	169
119.	Temporary River Access for Structure B-5-381, Item SPV.0105.11; Temporary River Access for Structure B-5-736, Item SPV.0105.12.	170
120.	Navigation Lights and Aids, Item SPV.0105.13.....	172
121.	Meter Breaker Pedestal Black at CTH DD Roundabout, Item SPV.0105.14; Turner Street Roundabout, Item SPV.0105.15.	177
122.	Electrical Service Meter Breaker Pedestal Black at CTH DD Roundabout, Item SPV.0105.16; Turner Street Roundabout, Item SPV.0105.17.....	178
123.	Seismograph Urban, Item SPV.0105.18.	179
124.	Construction Staking Temporary Causeway A, Item SPV.0105.19; Causeway B, Item SPV.0105.20; Causeway C, Item SPV.0105.21; Causeway D, Item SPV.0105.22.	180
125.	Wetland Restoration Survey, Item SPV.0105.23.....	181
126.	Water for Seeded Areas, Item SPV.0120.01.....	182
127.	Staining Concrete, Item SPV.0165.01.	183
128.	Stamped Concrete Sidewalk 4-Inch, Item SPV.0165.02.	185
129.	Mulch Shredded Bark, Item SPV. 0165.03.....	186
130.	Insulation Board 2-Inch, Item SPV.0165.04.....	186
131.	Quarry Stone Wall, SPV.0165.05.	187
132.	Remove and Salvage Rock Wall, Item SPV.0165.06.....	188
133.	Concrete 5-Inch Decorative, Item SPV.0180.01.	189
134.	Broom Finish Concrete Pavement Crosswalk, Item SPV.0180.02.....	191
135.	Geogrid Reinforcement, Item SPV.0180.03.	191
136.	Excavation, Hauling, and Disposal of Contaminated Sediment, Item SPV.0195.01.	193

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 4075-28-71, Village of Wrightstown, Fox River Bridge B-5-381, STH 96, and Project 4095-10-72, High Street, Village of Wrightstown, Fox River – Shanty Road, STH 96, both projects are located in the Village of Wrightstown, Brown 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, 2014 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 (20130615)

2. Scope of Work.

The work under this contract shall consist of excavation common, storm sewer, breaker run, base aggregate, Structures B-5-381, R-5-110, R-5-111, R-5-112, R-5-113, concrete curb and gutter, concrete sidewalk, concrete pavement, asphaltic paving, permanent signing, pavement marking, erosion control, traffic control, lighting items, landscaping and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

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

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

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

Comply with all local ordinances which apply to construction operations. Furnish any ordinance variance issued by the municipality or any other required permits to the engineer by the contractor, in writing before performing such work.

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

The contractor is advised that there may be multiple mobilizations for such items as erosion control, traffic control, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations.

Schedule of Operations

The schedule of operations shall conform to the requirements described below, unless modifications are approved in writing by the engineer.

Project 4075-28-71

Maintain STH 96 traffic across the Fox River at all times.

Limit construction activities to allow unrestricted marine navigation on the Fox River with a minimum horizontal clearance of 30 feet and a minimum vertical clearance of 23 feet from September 1, 2014 to December 31, 2014. Contractor construction activities may restrict all marine navigation on the Fox River from January 1, 2015 to February 28, 2015. Limit construction activities to allow unrestricted marine navigation on the Fox River with a minimum horizontal clearance of 30 feet and a minimum vertical clearance of 23 feet from March 1, 2015 to December 31, 2015. Contractor construction activities may restrict all marine navigation on the Fox River from January 1, 2016 to February 29, 2016.

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

Work under this project includes:

- Construction of the new Fox River Bridge, pavement, curb and gutter, and sidewalk.
- Construction of roundabouts at the intersection of STH 96 (Main Street) and CTH DD (Broadway Street) and on a new alignment 100 feet south of the intersection of STH 96 and Turner Street.
- Reconstruction of the intersection at Turner Street and Fair Street.
- Reconstruction of High Street from Mueller Street to Turner Street.
- Reconstruction of High Street from west of the Fox River to Main Street.
- Construction of the new alignment of Cedar Street, moving the access from Broadway Street to Main Street.

Traffic Control, Stages

The construction plans for the project will include WisDOT Standard Detail Drawings for advance signing and traffic control. Portable Changeable Message Signs shall be placed on each end of the project 7 days prior to beginning construction along STH 96.

Stage 1A – Anticipated Duration: September 2014 to November 2014

- Close Hickory Street from Broadway Street to Bridge Street.
- Clear and Grub along proposed bridge alignment from Hickory Street to the west bank and from the east bank to High Street.
- Construct the east and west temporary construction access roads along bridge.
- Construct causeway A and B for construction of B-5-381.
- Begin construction of B-5-381.
- Construct railroad crossing.
- Construct the west leg of the west roundabout from Station 99'EB'+81 to Station 107'EB'+60.
- Construct temporary bypass in the northwest quadrant of the Broadway and Main Street intersection.
- Construct temporary access road between Cedar Street and temporary bypass.
- Obliterate Cedar Street from CTH DD to temporary access road for Cedar Street.
- Place permanent and temporary erosion control devices in accordance to winter shutdown of roadway operations. Construction of B-5-381 anticipated to progress through the winter.

Stage 1B – Anticipated Duration: November 2014 to July 2015

- Complete B-5-381.
- Construct west roundabout.
- Construct east roundabout.
- Construct pedestrian access abutment (R-05-110).
- Construct pedestrian embankment connection to bridge.
- Remove temporary causeways A and B from the Fox River.
- Remove west temporary access road. The east temporary access road in Plum Creek wetlands to remain in place.

Stage 2 - Anticipated Duration: August 2015 to December 2015

- Remove east temporary access road and place erosion control in impacted wetland area.
- Remove temporary bypass in the northwest quadrant of the Broadway and Main Street intersection.
- Construct sidewalk in north quadrant of west roundabout.
- Construct proposed Cedar Street and temporary connection to Main Street to asphaltic binder layer.
- Obliterate existing High Street from Fair Street to proposed STH 96.
- Construct High Court cul de sac.

- Reconstruct High Street from Mueller Street to Turner Street, construct intersections of Mueller Street and High Street and Turner Street and Fair Street.
- Construct temporary causeways C or D along existing Structure B-5-736. Note: causeways C and D cannot be in place within the river concurrently.
- Remove portion of existing Structure B-5-736.

Stage 3a - Anticipated Duration: January 2016 to February 2016

- Remove temporary causeway placed in Stage 2.
- Construct remaining temporary causeway along existing Structure B-5-736.
- Complete removal of existing Structure B-5-736.
- Remove temporary causeway prior to March 1.

Stage 3b - Anticipated Duration: March 2016 to May 2016

- Construct Main Street temporary widening along existing northbound lane.
- Construct retaining walls along High Street (R-05-112, R-05-113).
- Construct High Street from Main Street to Hickory Street to asphaltic binder layer.
- Obliterate Hickory Street from proposed Bridge to High Street.
- Construct scenic overlook at east bank of Fox River.
- Reconstruct High Street from east bank of Fox River to CTH ZZ (Washington Street)

Stage 3c – Anticipated Duration: May 2016

- Construct southbound lanes of Main Street.
- Install temporary widening along southbound lane of Main Street.

Stage 3d – Anticipated Duration: May 2016 to June 2016

- Construct northbound lanes of Main Street.

Stage 3e Anticipated Duration: June 2016

- Construct from curb and gutter flange line to slope intercepts for southbound lanes for Main Street.
- Construct northeast splitter island of west roundabout.
- Place asphaltic surface layer for both Cedar and High Street.

All lane and roadway closures require prior approval and monitoring by the department staff. Traffic control stage changes and short term closures on STH 96 or local roads require prior approval and will be monitored by the department staff.

Follow the Village of Wrightstown noise ordinance. The majority of the construction activities shall be completed from 7:00 AM to 9:00 PM on weekdays. However, per the Village ordinance, some night work may be permitted when public welfare and convenience renders it impossible to perform the work during the day. Such activities require prior approval by the engineer.

Project 4095-10-72

Work under 4095-10-72 coincides with Stage 3 work under Project 4075-28-71.

Work under this project includes:

- Reconstruction of the intersection at High Street and CTH ZZ (Washington Street).
- Reconstruction of 550 feet of STH 96 from the intersection of CTH ZZ/Washington Street to approximately 125 feet south of the intersection of Mueller Street.
- Reconstruction of approximately 490 feet of CTH ZZ/Washington Street.
- Storm sewer construction.

Portable Changeable Message Signs shall be placed on each end of the project 7 days prior to beginning construction along STH 96.

CTH ZZ (Washington Street) shall remain open to traffic. STH 96 (High Street) will be closed to traffic. Brown County has the option to establish a detour route for CTH ZZ traffic that is traveling to/from STH 96. If a detour route is designated for CTH ZZ traffic, the placement and maintenance will be the responsibility of Brown County. Access shall be maintained for businesses within the construction limits. Construction schedule shall be expedited as much as possible to minimize duration of impacts.

Stage 1

Temporary widening shall be placed along the existing southbound lanes of CTH ZZ.

Stage 2

The proposed northbound travel lanes shall be constructed during this stage. Temporary widening shall be placed adjacent to northbound travel lanes to carry Stage 3 traffic.

Stage 3

CTH ZZ traffic will utilize the widened northbound travel lanes. Temporary pavement marking and traffic control signing will be placed prior to shifting traffic. The proposed southbound travel lane, shoulder, and sidewalk will be constructed during this stage. The contractor may reduce traffic to one lane during daylight hours when using flaggers for paving operations.

Stage 4

CTH ZZ traffic will use the constructed northbound and southbound lanes. Temporary pavement marking and traffic control signing will be placed prior to shifting traffic. Curb and gutter and sidewalk along the northbound lane will be constructed.

Stage 5

The north half of the CTH ZZ and STH 96 intersection will be completed during this stage. Brown County may detour traffic around the intersection using Mueller Street or the contractor may construct the intersection one half at a time and use flaggers.

Flagging will be required to construct the match points along CTH ZZ at the bridge over Plum Creek and at the intersection of CTH ZZ and High Street.

Contractor must submit a plan to the department for approval. All lane and roadway closures require prior approval and monitoring by the department staff. Traffic control stage changes and short term closures on STH 96 or local roads require prior approval and will be monitored by the department staff.

Flagging operations will be permitted during off-peak hours, as approved by department staff, to facilitate the installing of storm sewer. Maintain one lane of traffic at all times during flagging operations. Provide 5 days' notice to the engineer prior to the scheduled lane closure.

The construction plans for the project include standard detail drawings for advance signing and traffic control. Portable Changeable Message Signs shall be placed on each end of the project 7 days prior to beginning construction along STH 96.

Interim Completion Dates

Project 4075-28-71

Stage 1A – East Construction Access Road Completion Date

Complete construction operations consisting of all excavation and fill including the placement of all permanent and temporary erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, or any other item required by the contract or deemed necessary by the engineer within the east temporary access road from Station 126+35 to Station 129+56 excluding Structure B-5-381, prior to 12:01 AM September 30, 2014.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work consisting of all excavation and fill including the placement of all permanent and temporary erosion control devices (including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, or any other item required by the contract or deemed necessary by the engineer within the east temporary access road) prior to 12:01 AM September 30, 2014, the department will assess the contractor \$1,250 in interim liquidated damages for each calendar day that the work described is completed after 12:01 AM, September 30, 2014. An entire calendar day will be charged for any period of time within a calendar day that the necessary work as described is completed beyond 12:01 AM.

Stage 1A – CTH DD/ Broadway Street Completion Date

Complete construction operations on CTH DD/Broadway Street from Station 99'EB'+81 to Station 107'EB'+60 and the Temporary Bypass Road to the stage necessary to reopen it to through traffic prior to 12:01 AM November 1, 2014. Do not reopen until completing

the following work: Grading, Base Aggregate Dense, Concrete Paving, HMA Paving, Pavement Marking, and Signing.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen CTH DD/Broadway Street from Station 99'EB'+81 to Station 107'EB'+60 and the Temporary Bypass Road to through traffic prior to 12:01 AM November 1, 2014, the department will assess the contractor \$1,250 in interim liquidated damages for each calendar day that the roadway remains closed after 12:01 AM, November 1, 2014. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Stage 1B – West Roundabout Completion Date and Removal of Detour 1

Complete construction operations for the roundabout at the intersection of STH 96 (Main Street) and CTH DD (Broadway Street) to the stage necessary to reopen it to through traffic prior to 12:01 AM July 1, 2015. Do not reopen until completing the following work: Grading, Base Aggregate Dense, Concrete Paving, HMA Paving, Pavement Marking, Signing, Lighting at the roundabout, and the removal of the signing and pavement marking for Detour 1.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen the intersection of STH 96 (Main Street) and CTH DD (Broadway Street) to through traffic prior to 12:01 AM July 1, 2015, the department will assess the contractor \$1,250 in interim liquidated damages for each calendar day that the intersection remains closed after 12:01 AM, July 1, 2015. An entire calendar day will be charged for any period of time within a calendar day that the intersection remains closed beyond 12:01 AM.

Stage 2 – Structure B-5-736 Removal Timeframe

At the beginning of Removal of Structure B-5-736 operations, reduce the horizontal navigational clearance to a minimum of 30 feet for a maximum of 153 calendar days. Do not reopen until completing the following work: Removing Old Structure and Removal of Causeway.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen the Fox River navigation channel to unrestricted width within 153 calendar days, the department will assess the contractor \$5,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 153 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

The department will not grant time extensions to the interim completion dates specified above for the following:

1. Severe weather as specified in standard spec 108.10.2.2.
2. Labor disputes that are not industry wide.
3. Delays in material deliveries.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

Fish Spawning

There shall be no instream disturbance of the Fox River and Plum Creek as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning fish such as walleye and northern pike.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.

Migratory Birds

Swallow and other migratory birds' nests have been observed on or under the existing bridge. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established, or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds, or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Removing Old Structure Over Waterway with Minimal Debris.

Wisconsin Central Ltd.

Wisconsin Central Ltd. (WCL) will be performing all the railroad track work relating to the reconstruction of the railroad crossing which includes the construction of the proposed mainline track in Stage 1A and the removal of the existing track.

The WCL will not perform track construction work between November 15 and April 15 of any given year.

The contractor will not be able to place final base and roadway pavement from Station 103'BEB'+42.50 to 107'BEB'+58.07 until WCL construction activities have been completed. The completed installation of the tracks at the railroad crossing will be

surveyed by field staff assigned by the department. The constructed railroad track elevations and cross slope at the proposed railroad crossing will be compared with the roadway construction plan elevations. The contractor shall not proceed with roadway construction at the railroad crossing until notice to proceed is given by the engineer. The contractor is required to submit to the engineer a detailed critical path schedule showing construction operations required to complete the work to ensure the contractor can complete their work within Stage 1A.

Contact WCL at least 30 days prior to the projected start date so WCL can schedule their work crews. The removal of existing pavement and topsoil shall be coordinated with WCL prior to construction.

Coordination with WCL is critical in order to complete Stage 1A construction. Coordinate on a weekly basis with WCL during active WCL construction activities. Any changes to the schedules and sequences shall be reviewed and approved by WisDOT and the WCL prior to implementation.

U.S. Coast Guard Coordination

For bridges in this contract, any impacts to navigation, are authorized by the U.S. Coast Guard.

Coordinate with the U.S. Coast Guard at least 30 calendar days prior to the start of any work that temporarily alters the navigational clearances, places equipment in the waterway, or could potentially affect navigation during the project at any of the bridge sites. The U.S. Coast Guard contact is as follows:

Primary Contact

Mr. Lee Soule
Commander (DPB)
Ninth Coast Guard District
1240 East 9th Street
Cleveland, OH 44199-2060
Email: Lee.D.Soule@uscg.mil
Office: (216) 902-6085
Fax: (216) 902-6088

Secondary Contact

Mr. Blair Stanifer
Bridge Management Specialist
Ninth Coast Guard District
1240 East 9th Street
Cleveland, OH 44199-2060
Email: William.B.Stanifer@uscg.mil
Office: (216) 902-6086
Fax: (216) 902-6088

Keep the Coast Guard District informed of the schedule of work and be notified prior to any change to the schedule. In addition, the name of the person who may be contacted on a 24-hour basis to respond to an emergency at the work site shall be provided.

Full closure of the channel to navigational vessels will only be allowed during the non-navigation season between January 1, 2015 to February 28, 2015 and January 1, 2016 to February 29, 2016 or as allowed by the U.S. Coast Guard.

Community Event Coordination

The Village of Wrightstown will be hosting the following events:

- Memorial Day Parade on Monday, May 25, 2015 and Monday, May 30, 2016. The route is School Street to Fair Street to High Street, over the existing bridge, and then south to the VFW Park on Main Street. The village's traffic coordinator for these events is Perry Kingsbury, Police Chief, (920) 532-6007.
- Festival on the Fox (end of August) – Mueller Park and the downtown area along Washington Street are heavily used during this event. Coordination will be required with event organizers to review the proposed route.
- Waterboard Warriors Water Ski Show – The ski shows are performed two times per week during the summer from Memorial Day through Labor Day. STH 96 may experience increased traffic prior to and following these events.
- Wrightstown Gridiron Tiger Run 5k run/walk (late August/early September) – The proposed 5k course crosses STH 96 at the intersection with Shanty Road. Coordination will be required with event organizers to review the proposed route sixty (60) calendar days before the event. The village's traffic coordinator for these events is Perry Kingsbury, Police Chief, (920) 532-6007. Prior to the event, fill or securely cover all holes or opening within the proposed course. Complete street sweeping of the intersection to remove all loose gravel and debris from the course. Provide additional traffic control devices to prevent runners/walkers from entering the work zone adjacent to the proposed course. The costs for additional traffic control devices during the event shall be paid for under the "Traffic Control Project 4075-28-71" bid item.
- Christmas Parade – The route is School Street to Fair Street to High Street, over the bridge, and then south to the VFW on Main Street. The village's traffic coordinator for these events is Perry Kingsbury, Police Chief, (920) 532-6007.

Snowmobile Club Coordination

Engineer should contact Mike Tilleman, Association of Wisconsin Snowmobile Clubs – Brown County Director at (920)468-5419 or 1mtilleman@gmail.com to coordinate routes during construction.

Fox River Temporary Causeway Calendar Day

Remove the temporary causeway used for construction of bridge B-5-381 over the Fox River within 46 calendar weeks (322 calendar days) of initiating placement of causeway materials into the Fox River.

4. Project Communication Enhancement Effort.

Use the Project Communication Enhancement Effort (PCEE) tools on this contract. Coordinate with the department to modify the various published tools as necessary to meet the particular project needs and determine how to implement those tools under the contract. Ensure the full participation of the contractor and its principal subcontractors throughout the term of the contract.

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

<http://roadwaystandards.dot.wi.gov/standards/admin/pcee-user-manual.doc>

105-005 (20090901)

5. Traffic.

The construction sequence, including the associated traffic control, shall be substantially accomplished as detailed in the Traffic Control Plans, and as described herein.

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

Vehicular access to businesses will be maintained at all times. Coordinate with businesses to determine daily trucking requirements, typical truck routes to and from the businesses, and other access requirements. A paving gap is included in the contract quantities for each business with access to STH 96. If a business has an alternative access to an adjacent side road, no pavement gap was included in the quantities. Some locations with paving gaps are anticipated to need gaps for driveway construction as well. No additional compensation will be made for pouring concrete driveways in halves. Provide business owners a minimum of 48 hours' notice prior to altering the location of the access to their business.

Vehicular access to residential driveways will be maintained except during concrete paving operations. Residential driveway access interruptions will be limited to the paving and curing periods required for pavement, curb and gutter, sidewalk, and concrete driveways. Notify property owners a minimum of 48 hours in advance of driveway access restrictions or changes.

Use drums, barricades, cones, flaggers or temporary fencing, in addition to the traffic control shown in the plans, to delineate and or protect the public from temporary hazards in the work zone. Protect hazards such as; exposed excavations, drop offs, construction equipment and operations and any other hazardous condition that is caused by the construction activity. All costs for the use of such devices are incidental to the operation that creates the hazard.

Mobilizations required to begin a new stage or to facilitate the contractors work schedule shall be incidental to the traffic control bid items and other contract bid items.

Traffic control stage changes will only be allowed during off peak hours.

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

Keep appropriate emergency officials informed of routes within the construction area to provide emergency services. Allow emergency vehicles access at all times to these areas during construction. Notify the Brown County Sheriff and Village of Wrightstown police and fire departments 48 hours in advance of any traffic switches or road closures.

Sidewalk closure restrictions

Pedestrian access to businesses and residences shall be maintained throughout the duration of the project on existing concrete sidewalks, temporary asphalt sidewalks, or new concrete sidewalks. Stage the construction of sidewalk by maintaining the existing concrete sidewalk or newly constructed concrete sidewalk on at least one side of the road.

Once any section of concrete sidewalk has been removed, install temporary or permanent sidewalk within ten working days of the removal. Install safety fence to separate pedestrians from the work areas. Due to the existing narrow terrace widths, install safety fence prior to removal of the existing inlets and curb and gutter. Safety fence to remain in place until the new curb and gutter is installed and backfilled.

Temporary sidewalk closures are allowed in order to install storm sewer laterals up to the right-of-way line. Install traffic control in accordance to the standard detail drawing "Traffic Control, Sidewalk Closure". Limit temporary sidewalk closures to one side of the road at a time. Sidewalks may only be closed in one block increments.

A temporary hard surface crossing is needed throughout construction within work zones and at all side road and mainline crossings. Temporary crossings on mainline STH 96 are required at Broadway Street, Fair Street, Turner Street, Mueller Street, and Washington Street. At these intersections provide one temporary crossing across STH 96 per intersection. It is not necessary to provide a crossing on either side of the side streets. One crossing per intersection shall be acceptable. Temporary crossing to be paid for under "Temporary Crosswalk Access".

The contractor shall be in contact with property owners when sidewalk closures will take place and coordinate any temporary access needed if alternate access does not exist.

All temporary access points are incidental to the contract.

Wisconsin Lane Closure System Advanced Notification

Provide the following minimum advance notification to the engineer for incorporation into the Wisconsin Lane Closure System:

Lane closures (without width, height or weight restriction)	3 business days
Service Ramp closures	3 business days
Extended closure hours	3 business days
System Ramp closures	7 calendar days
Local Street openings/closings	7 calendar days
Lane closures (with width, height or weight restriction)	14 calendar days
Project Start	14 calendar days
Full Freeway closures	14 calendar days
Construction stage changes	14 calendar days
Detours	14 calendar days

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

Portable Changeable Message Signs – Message Prior Approval

After coordinating with department construction field staff, notify the Northeast Region Traffic Section at (920) 492-5641 (secondary contact number is (920) 492-7719) three business days prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The Northeast Region Traffic Unit will review the proposed message and either approve the message or make necessary changes.

Maintenance of Traffic

Maintain traffic during staged construction operations on STH 96 as shown in the traffic control/construction staging plan. The maintenance of traffic during construction stages is as follows:

Project 4075-28-71

Stage 1A Traffic

STH 96 – Maintain one (1) travel lanes in each direction during peak hours.

CTH DD/Broadway Street – Close CTH DD/Broadway Street between Poplar Street and STH 96/Main Street. Maintain local and emergency access to businesses and residents.

Broadway Street – Close Broadway Street east of STH 96/Main Street to through traffic. Maintain local and emergency access to residents.

Cedar Street – Maintain local and emergency access to residents.

Hickory Street – Closed to traffic between Broadway Street and Bridge Street.

Other Roadways – Open to through traffic.

2014 – 2015 Winter Shutdown of Roadway Operations

Upon completion of Stage 1A construction activities, reopen CTH DD/Broadway Street between Poplar Street and STH 96 Main Street via the Temporary Bypass Roadway to

through traffic. Reopen Cedar Street to Temporary Bypass via the temporary access. Maintain traffic along STH 96 through the existing intersection of STH 96 and Broadway Street. Hickory Street and Broadway Street east of STH 96 to remain closed to through traffic.

Stage 1 B Traffic

STH 96 – Close STH 96 to through traffic from Green Street to Bridge Street. Maintain local and emergency access to businesses and residents. Maintain one (1) travel lanes in each direction during peak hours on remainder of the STH 96.

CTH DD/Broadway Street – Open to through traffic

Broadway Street – Close Broadway Street east of STH 96/Main Street to through traffic. Maintain local and emergency access to residents.

Cedar Street – Open to through traffic

Hickory Street – Closed to traffic between Broadway Street and Bridge Street.

Other Roadways – Open to through traffic.

Stage 1B Detour

Post the following traffic detour during Stage 1A:

- STH 96 traffic will use the temporary bypass roadway to CTH DD/Broadway Street continue to CTH U and then back onto STH 96.

Stage 2 Traffic

STH 96

- Structure B-5-381 will be open to STH 96 traffic.
- Structure B-5-736 shall remain in place to provide access from STH 96 to CTH ZZ during construction of Turner Street and Fair Street.

Cedar Street – Close to through traffic. Maintain local and emergency access during construction.

Temporary Bypass Road – Close to traffic. Remove Temporary Bypass Road during Stage 2.

Turner Street – Closed to traffic from the east roundabout to north of Fair Street. Maintain emergency access.

Fair Street – Closed to traffic for west of Mueller Street to east of Turner Street. Maintain local and emergency access.

Mueller Street – Closed to traffic from west of Fair Street to Fair Street. Maintain local and emergency access.

Other Roadways – Open to through traffic

2015 – 2016 Winter Shutdown of Roadway Operations

Upon completion of Stage 2 construction activities, reopen Cedar Street, Turner Street, Fair Street, and Mueller Street to through traffic. Other Roadways open to traffic. Structure B-5-736 is no longer required for maintenance of traffic after stage 2 construction activities.

Stage 3A Traffic

Bridge Street – Closed to through traffic. Maintain local and emergency access.

High Street, east of Washington Street – Closed to through access. Maintain local and emergency access.

Other Roadways – Open to through traffic

Stage 3B Traffic

Main Street, north of STH 96 – Maintain one lane in each direction. Close northbound shoulder to construct temporary widening.

Bridge Street – Closed to through traffic. Maintain local and emergency access.

High Street, east of Washington Street – Closed to through access. Maintain local and emergency access.

Other Roadways – Open to through traffic

Stage 3C Traffic

Main Street, north of STH 96 – Maintain one lane in each direction on widened northbound lanes. Construct southbound roadway with temporary widening

Bridge Street – Closed to through traffic. Maintain local and emergency access.

High Street, east of Washington Street – Closed to through access. Maintain local and emergency access.

Other Roadways – Open to through traffic

Stage 3D Traffic

Main Street, north of STH 96 – Maintain one lane in each direction on widened southbound lanes.

Bridge Street – Closed to through traffic. Maintain local and emergency access.

High Street, east of Washington Street – Closed to through access. Maintain local and emergency access.

Other Roadways – Open to through traffic

Stage 3E Traffic

Main Street, north of STH 96 – Maintain one lane in each direction. Close southbound shoulder to construct curb and gutter, terrace, and sidewalk.

Bridge Street – Closed to through traffic. Maintain local and emergency access.

High Street, east of Washington Street – Closed to through access. Maintain local and emergency access.

Other Roadways – Open to through traffic

Project 4095-10-72

Stage 1 Traffic

Washington Street – Open to through traffic. Single lane flagging operation may be required to construct widening along the southbound travel lanes.

High Street – Open to through traffic

Stage 2 Traffic

Washington Street – Open to through traffic on widened southbound travel lanes

High Street – Closed to through traffic from Washington Street to Mueller Street. Maintain local and emergency access.

Stage 3 Traffic

Washington Street – Open to through traffic. Northbound and Southbound traffic on widened northbound travel lanes.

High Street – Closed to through traffic from Washington Street to Mueller Street. Maintain local and emergency access.

Stage 4 Traffic

Washington Street – Open to through traffic on completed northbound and southbound travel lanes.

High Street – Closed to through traffic from Washington Street to Mueller Street. Maintain local and emergency access.

Stage 5 Traffic

Washington Street – Open to through traffic on completed northbound and southbound travel lanes. Washington Street closed to through traffic between High Street and Mueller Street. Brown County may detour traffic around the intersection using Mueller Street or the contractor may construct the intersection one half at a time and use flaggers.

High Street – Open to through traffic.

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 96 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, August 29, 2014 to 6:00 AM Tuesday, September 2, 2014 for Labor Day;
- From noon Friday, May 22, 2015 to 6:00 AM Tuesday, May 26, 2015 for Memorial Day;
- From noon Friday, July 3, 2015 to 6:00 AM Monday, July 6, 2015 for Independence Day;
- From noon Friday, September 4, 2015 to 6:00 AM Tuesday, September 8, 2015 for Labor Day;
- From noon Friday, May 27, 2016 to 6:00 AM Tuesday, May 31, 2016 for Memorial Day;
- From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016 for Independence Day;
- From noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016 for Labor Day.

107-005 (20050502)

7. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.

107-065 (20080501)

Designate an individual responsible for utility coordination and communication for the duration of this project. This individual shall be experienced in utility coordination on similar projects.

Additional detailed information regarding the location of relocated utility facilities available on the permits issued to the utility companies. These permits can be viewed at the Region Office during normal working hours. Contact the Northeast Region Utility Coordinator Jeffrey Orr at (920) 492-3511.

Some utility work, as described below, is dependent on prior work being performed by the contractor at a specific site. Provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Notice shall be given 14 to 16 calendar days in advance of when the site will be available to the utility. Follow up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

Bidders are advised to contact each utility company listed in the plans prior to preparing their bids, to obtain current information on the status of existing and any new utility relocation work. Utility companies will be performing utility work and adjustments within the limits and during the life of this project. Cooperate and coordinate construction activities with these organizations.

If a conflict with abandoned utility facilities is encountered, contact the appropriate utility owner/representative for instructions on proper removal and disposal of said facility.

Known utilities on the projects are as follows:

All station referencing is approximate.
107-065 (20080501)

Project 4075-28-71

AT&T Wisconsin has overhead and underground communication facilities throughout the project area. Overhead facilities enter the project area on STH 96/Main Street and continue northerly along the east right-of-way to Bridge Street. The facility turns easterly and continues along the south right-of-way towards the Fox River. Overhead facilities begins at the railroad crossing on CTH DD/Broadway Street and continue easterly along the south right-of-way, crossing STH 96/Main Street and connecting to the facility on the east side of STH 96/Main Street.

Overhead facilities enter the project area along the north right-of-way of Mueller Street and continue easterly onto High Street. These facilities end west of the intersection of Turner Street with Fair Street.

Overhead facilities begin south of the intersection of Turner Street with Fair Street and continue south-southeasterly on both sides of the roadway beyond the project limits.

Underground conduits enter the project area along CTH DD/ Broadway Street, beneath the westbound travel lanes. The facility continues easterly to STH 96/Main Street, turning northerly and continuing beneath the northbound travel lanes to Bridge Street. The facility turns and continues easterly beneath the eastbound travel lane towards the Fox River and exits the project area, crossing the Fox River. The facility reenters the project area west of the intersection of Mueller Street with High Street and continues easterly along the south right-of-way onto Fair Street and continues easterly beyond the project limits.

Underground facilities enter the project area west of the intersection of Mueller Street with High Street and continue easterly along the south right-of-way, adjacent to the aforementioned conduit onto Fair Street. The facility crosses Fair Street near the easterly project limits and continues northerly beyond the project limits. The facility reenters the project area along the east right-of-way of Turner Street, north of the intersection with Fair Street.

AT&T Wisconsin will bore buried cable along the east side of Main Street from south of Broadway Street to north of High Street. New cable will be bored along the south side of Broadway Street from east of the WCL rail road tracks to the east side of Main Street, where the cable will intersect the aforementioned cable along Main Street. Buried cable will continue easterly along the south side of Broadway Street to Station 111'WB'+25. New cable will continue northerly across STH 96 at Station 111'WB'+15 and beyond the project limits. Another cable will extend southerly from Station 111'WB'+25, beyond the project limits.

West of the WCL rail road tracks, buried cable will be bored along the south side of Broadway Street from Station 103'BE'+25 to Station 104'BE'+15, crossing Broadway Street at Station 103'BE'+30 and Station 104'BE'+10 .

AT&T will place new buried cable southeasterly along the east right-of-way of Bridge Street, crossing Hickory Street at Station 15'H'+60. New cable will be buried in a joint trench along the south side of Hickory Street from Station 15+00 and running south westerly towards the proposed STH 96 bridge.

AT&T will place new buried cable beginning at Station 216'H'+10 LT and crossing High Street at Station 216'H'+48 to the south side of High Street and continuing easterly to Station 221'H'+75 RT. Three buried cables continue easterly in the same trench to Station 19+30. The cable split with one cable continuing easterly along the south side of High Street to a manhole located at Station 225'H'+40 RT and connecting to the existing facilities. The remaining two cables continue south-southeasterly along the north side of STH 96 to Station 42+42 LT where the facilities intercept an existing buried cable.

The work is anticipated to start in spring of 2014 with an estimated construction time of 90 working days required. AT&T will work concurrently with Wisconsin Public Service Electric and Gas facility relocations.

The field contact is Eric Adair, 205 South Jefferson Street, Green Bay, WI 54301, telephone (920) 433-4155, email az9216@att.com.

Time Warner Cable has overhead communication facilities located on Wisconsin Public Service and AT&T Wisconsin poles. The facilities enter the project limits along the south right-of-way of CTH DD/Broadway and continue easterly towards STH 96/Main Street intersection. At the intersection, the facility splits with one facility continuing easterly along the south right-of-way Broadway Street, transitioning to an underground facility at Hickory Street and continuing southerly beyond of the project limits. The second facility

continues northerly along the east right-of-way of Main Street and turns easterly at Bridge Street, and continuing easterly along the south right-of-way of Bridge Street and beyond the project limits.

The overhead facilities on WPS Poles enter the project area along the north right-of-way of Mueller Street and continue easterly onto High Street and terminate at the intersection of Turner Street with Fair Street.

Time Warner Cable has aerial facilities on WPS poles throughout the project limits and will relocate joint aerial and underground with WPS.

The work is anticipated to start in May 2014. Time Warner Cable will work concurrently with Wisconsin Public Service Electric and Gas facility relocations.

The field contact is Vince Albin, 3520 E Destination Dr., Appleton, WI 54915, telephone (920) 831-9249, cell (920) 378-0444, Fax: (920) 749-1154, email: vince.albin@twcable.com.

Village of Wrightstown – Water has water main beneath the roadway along CTH DD/Broadway Street from the western project limits to the Fox River. At the western bank of the river, the line continues southerly along the western bank.

At the intersection of STH 96/Main Street with CTH DD/Broadway Street, two mains tee into this main. The main from the first tee at Station 108'BEB'+05, 45' RT extends southerly beneath the northbound lane of STH 96/Main Street to beyond the southerly project limits. The main from the second tee at Station 503'MNB'+99, 7' RT extends beneath the northbound lane of STH 96/Main Street to beyond the northerly project limits.

Water main enters the project area along Mueller Street and tees into the main on High Street at 219'H'+03, 17' LT. At Station 403'TNB'+01, 9' RT, the line tees into a water main running north-south along Turner Street throughout the project limits and continues to the east under Fair Street. The main under Turner Street turns and continues south/easterly under High Street.

The following 20 water valve boxes will be adjusted during construction. The valves and curb boxes are to be set ½-inch below finish grade by the contractor. The curb boxes and valves to be adjusted are located at:

Broadway Street: 103'BEB'+45, 7' RT and 104'BEB'+40, 9' RT

At the proposed Broadway Street / Main Street Roundabout: 0'RA'+92, 38' LT; 2'RA'+55, 33' LT; 2'RA'+63, 50' LT; 2'RA'+66, 21' LT; and 2'RA'+67, 51' LT

Main Street: 504'MNB'+05, 7' RT; 505'MNB'+77, 14' RT; and 505'MNB'+80' 12' RT

High Street: 218'H'+72, 32' LT; 219'H'+00, 17' LT; 219'H'+06, 17' LT; 134'EB'+57, 40' LT; 6'D'+51, 9' RT

Turner Street: 402'TNB'+97, 9' RT; 403'TNB'+00, 5' RT; 403'TNB'+47, 6' RT; 403'TNB'+65, 2' RT; and 403'TNB'+68, 6' LT

Water main on High Street from Main Street to the east will not be installed until 2015 when the old bridge is removed.

The field contact for the Village of Wrightstown is Travis Coenen, Superintendent of Public Works, 101 Washington Street, Wrightstown, WI 54180, telephone (920) 532-0434, cell (920) 660-2118, email tcoenen@wrightstown.us.

Village of Wrightstown – Sewer has an 18-inch sanitary sewer line beneath the roadway along STH 96/Main Street throughout the project limits. From the manhole at Station 108'BEB'+75, 7' LT, a 12-inch sanitary line extend westerly beneath CTH DD/Broadway Street to beyond the western project limits, and an 8-inch line extends easterly beneath Broadway Street towards the Fox River. At the western bank of the river, the line turns southerly and continues south beyond the project limits. From the manhole at Station 111'EB'+44, 18' RT, a 2-inch sanitary force main extends north and east to a lift station northeast of the proposed bridge.

A 12-inch sanitary sewer line enters the project area along Mueller Street and continues easterly onto High Street to a manhole at Station 403'TNB'+39, 20' RT. From the manhole at Station 403'TNB'+39, 20' RT, a 10-inch line extends northerly along Turner Street and beyond the project limits. A second 12-inch line extends southerly to a manhole at Station 402'TNB'+92, 21' RT. From this manhole, one 8-inch sanitary sewer line extends easterly beneath Fair Street and beyond the project limits. A second 12-inch line extends south-southeasterly beneath existing STH 96/High Street and beyond the project limits.

The following manholes will be adjusted during construction by the contractor:

- Broadway Street: Station 101'BEB'+25, 8' LT; Station 104'BEB'+71, 16' LT; Station 105'BEB'+96, 63' RT; Station 106'BEB'+24 26' RT; Station 111'EB'+44, 18' RT
- Main Street: Station 502'MNB'+94, 5' LT
- Turner Street: Station 402'TNB'+92, 21' RT; Station 403'TNB'+39, 20' RT; and Station 403'TNB'+69, 16' RT
- High Street: Station 5'D'+83, 6' LT
- Mueller Street: Station 18'MU'+75, 1' RT and 19+60, 27' LT

The manholes are to be set ½-inch below finish grade by the contractor. Notify the Wrightstown Department of Public Works upon completion of the work. The Wrightstown Department of Public Works will reinstall the internal manhole seals upon completion of the adjustment.

The field contact for the Village of Wrightstown is Travis Coenen, Superintendent of Public Works, 101 Washington Street, Wrightstown, WI 54180, Tel: (920) 532-0434, Cell: (920) 660-2118, Email tcoenen@wrightstown.us

Wisconsin Public Service – Electric has overhead and underground electrical facilities within the project limits.

Prior to construction, WPS will:

Move pole from Station 104'BEB'+30, 15'RT to Station 104'BEB'+30, 25'RT.

Install new pole at Station 504'MNB'+40 26'LT.

Remove pole at Station 504'MNB'+45, 23'LT.

WPS requests that the light to be placed at this location be moved approximately 10 feet closer to the crosswalk.

From the new pole at Station 504'MNB'+40, 26'LT, install new underground primary wires to a new switch installed at Station 504'MNB'+30, 50'LT, behind the new sidewalk. From the new switch, install three phase underground primary wires heading south across Main St to a new pad mounted transformer at Station 504'MNB'+10', 35'RT to feed the existing mini mart at the southwest corner of Main St and High St.

From the new switch at Station 504'MNB'+30, 50' LT, install new single phase underground primary heading south across Main St to behind new sidewalk, then heading south behind new sidewalk to Station 109'EB'+90, 70' LT, then cross STH 96 to Station 109'EB'+50, 25' RT, then head east to new pole at Station 109'EB'+90, 22' RT.

On Broadway Street, move pole from Station 111'EB'+04, 26' LT to Station 111'EB'+06, 34' LT and move pole from Station 111'EB'+30, 27' RT to Station 111'EB'+28, 23' RT.

From the new switch at Station 504'MNB'+30, 50' LT, install three phase underground wires to a new junction at 302'EB'+06, 85' LT.

Install a new pole at 302'MNB'+02, 95' LT. Connect to existing overhead lines to the northwest and the new junction at 302'MNB'+06, 85' LT.

Install a new pole at 301'MNB'+19, 40' LT and connect to existing pole at 301'MNB'+40, 60' RT with overhead cable and the new junction at 302'MNB'+06, 85' LT with a three phase underground cable.

Install a new pole at 300'MNB'+00, 23' LT and connect to existing overhead lines to the west and install three phase underground cable to the new junction at 302'MNB'+06, 85' LT.

At the roundabout of Main Street and Broadway Street, remove poles at 300'MNB'+87, 20' LT; 302'MNB'+22, 7' LT; 502'MNB'+48, 30' LT; 503'MNB'+28, 29' RT; 503'MNB'+53, 21' LT; 504'MNB'+20, 21' RT; 109'EB'+60 14' RT; Station 112'EB'+05, 10' LT and Station 112'EB'+02, 35' LT.

Move pole at 505'MNB'+36, 24' LT four feet to the northeast and remove overhead service to customer pole at 505'MNB'+06, 26' RT.

Possibly move pole at 506'MNB'+13, 24' LT three feet to the northeast.

Move pole from 13'H'+97, 25' LT to 14'H'+02, 26' LT.

May need to move pole at 6'D'+51, 15' LT one foot closer to the roadway.

Move pole at 136'EB'+20, 35' LT to 136'EB'+20, 32' LT.

On Turner Street, remove poles at 402'TNB'+73, 14' LT; 402'TNB'+33, 30' RT; and 403'TNB'+53, 7' LT; and move pole from 404'TNB'+28, 27' RT to 32' RT.

On Mueller Street, move pole from 19'MU'+42, 24' LT to 19'MU'+49, 31' LT.

On High Street east of the river, remove the poles at 209'H'+82, 34' LT and 209'H'+85, 105' LT.

Poles may need to remain until road and bridge are closed due to lighting.

The work is anticipated to start in May 1, 2014 with an estimated construction time of 45 working days required.

The field contact is Scott Gauger, 2850 S. Ashland Avenue, Green Bay, WI 54307, telephone (920) 617-5151, cell (920) 660-0430, email: sjgauger@wisconsinpublicservice.com. The 24-Hour Emergency Service number is (800) 450-7240.

Wisconsin Public Service - Gas has underground gas distribution facilities beneath the roadway throughout the project area.

Prior to construction, WPS will:

Abandon the 6" plastic main on Broadway from Station 106'BEB'+30 LT east to Main Street and headed north to Station 505'MNB'+40 LT.

Abandon the 1 ¼" Steel on current Cedar Street from Broadway to dead end.

Abandon the 2" Steel on Main Street from north of the project boundary at Bridge Street and Main through the entire project headed south. WPS will continue south past the southern construction limits.

Abandon the 1 ¼" Steel on Broadway from Station 303+00 to Bridge stationing 112'EB'+00.

Install new 6" Plastic heading north on current Cedar Street starting at Station 106'BEB'+30. WPS will head east on new Cedar Street starting at 7'C'+50 and tie into existing 6" plastic on Main St at Station 505'MNB'+35. Also WPS will install new 2" plastic starting at 7'C'+50 heading north to dead end on Cedar Street.

Install new 2" Plastic starting at Station 106'BEB'+30 headed south crossing Broadway and turning east on the southern right-of-way to 108'BEB'+00. The 2" plastic will run south on the western right-of-way from 302'EB'+50 south past the construction limits.

Install new 2" Plastic crossing Main Street at Station 301'EB'+65 to the east right-of-way head north and then east on Broadway to bridge stationing 112'EB'+00.

If the buildings at 535 Hickory and 531 Hickory are going to stay, WPS will install joint 1" Plastic with electric and cable from Bridge Street.

Contractors may have to work near existing WPS gas facilities and will need to take the necessary precautions if working within 18" of these lines. The minimum time required to resolve an unforeseen conflict will be four working days. A WPS requested locate will be required, as well as time to resolve the direct conflict. More than four days may be necessary to resolve a direct conflict depending on the size, material, and linear footage of the facility in direct conflict.

The work is anticipated to start in Spring 2014 or Summer 2014 with an estimated construction time of thirty (30) working days required.

The field contact is Phil Mauermann, 2850 South Ashland Avenue, P.O. Box 19001, Green Bay, WI 54307, telephone (920) 617-5092, cell (920) 606-8448. The 24-Hour Emergency Service number is (800) 450-7280.

Project 4095-10-72

AT&T Wisconsin has overhead facilities along the east right-of-way of Washington Street throughout the project area. Overhead facilities extend easterly from this facility along the south right-of-way of High Street.

AT&T will place new buried cable along the east side of Washington Street from the south project limits to Station 7'W'+33. The cable crosses Washington Street at Station 7'W'+33 and continues northerly along the west side of the roadway to Station 11'W'+07. The facility crosses Washington Street and connects to existing facilities on the east side of the roadway. The existing cables from Station 5'W'+85 to 11'W'+07 on the east side of Washington Street will be abandoned.

The work is anticipated to start in November 2013 with an estimated construction time of 90 working days required. AT&T will work concurrently with Wisconsin Public Service Electric and Gas facility relocations.

The field contact is Eric Adair, 205 South Jefferson Street, Green Bay, WI 54301, telephone (920) 433-4155, email: az9216@att.com.

Time Warner Cable has overhead communication facilities located on Wisconsin Public Service and AT&T Wisconsin poles. The facilities enter the project limits along the east right-of-way of Washington Street and continue northerly beyond the project limits. An overhead service crossing Washington Street at the intersection of the High Street with Washington Street.

Time Warner Cable has existing aerial facilities on WPS POLES along the south side of Washington St from Station 6W+25 to Station W+60 and will relocate joint underground with WPS. Time Warner Cable also has aerial facilities on WPS poles from Station 8W+80 to Station 9W+60 and will relocate joint aerial onto new WPS poles. Time Warner Cable will adjust any unforeseen conflicts during construction.

The work is anticipated to start in May 2014. Time Warner Cable will work concurrently with Wisconsin Public Service Electric and Gas facility relocations.

The field contact is Vince Albin, 3520 E Destination Dr., Appleton, WI 54915, telephone (920) 831-9249, cell (920) 378-0444, Fax: (920) 749-1154, email: vince.albin@twcable.com.

Village of Wrightstown – Water has an 8-inch water main beneath the southbound travel lanes of Washington Street, from the north project limits to Station 7'W'+90. An 8-inch water main extends easterly beneath High Street from a tee at Station 10'W'+40 to the eastern project limits. An existing 6-inch water main has been abandoned in place.

The following five water valve boxes will be adjusted during construction. The valves and curb boxes are to be set ½-inch below finish grade by the contractor. The curb boxes and valves to be adjusted are located at: 7'W'+90, 19' LT; 8'W'+89, 19' LT; 10'W'+34, 13' LT; 10'W'+38, 9' LT; and 215'H'+86, 27' RT.

The field contact for the Village of Wrightstown is Travis Coenen, Superintendent of Public Works, 101 Washington Street, Wrightstown, WI 54180, telephone (920) 532-0434, cell (920) 660-2118, email tcoenen@wrightstown.us.

Village of Wrightstown – Sewer has a sanitary sewer line beneath the roadway along Washington Street. A 15-inch sewer line extends into the project from the north project limits and continue southerly to a manhole at Station 10'W'+30, 1' RT. An 8-inch line continues southerly to a manhole at Station 6'W'+07, 4' RT. An 8-inch line continues easterly from the manhole at Station 10'W'+30, 1' RT beneath High Street to a manhole at Station 215'H'+35, 16' RT. A 6-inch lateral extends westerly from the manhole at Station 8'W'+81, 3'LT and beyond the project limits.

A 4-inch force main begins at the manhole at Station 6'W'+13 and continues northerly beneath Washington Street and connects to the manhole at Station 10'W'+30, 1' RT.

Prior to construction, the Village of Wrightstown will extend sanitary sewer service on High Street, west of Washington Street to service buildings at 108 and 112 High Street.

The following manholes will be adjusted during construction by the contractor:

- Station 6'W'+07, 4' RT
- Station 6'W'+13, 9' RT
- Station 8'W'+81, 3' LT
- Station 10'W'+30, 1' RT

The manholes are to be set ½-inch below finish grade by the contractor. Notify the Wrightstown Department of Public Works upon completion of the work. The Wrightstown Department of Public Works will reinstall the internal manhole seals upon completion of the adjustment.

The work is anticipated to start in March 2015 with an estimated construction time of thirty (30) working days required.

The field contact for the Village of Wrightstown is Travis Coenen, Superintendent of Public Works, 101 Washington Street, Wrightstown, WI 54180, telephone (920) 532-0434, cell (920) 660-2118, email tcoenen@wrightstown.us.

Wisconsin Public Service – Electric has overhead electrical facilities within the project limits along the east side of the Washington Street and along the south side of High Street.

Prior to construction, WPS will:

- Move pole at Station 9'W'+60, 20' RT to Station 9'W'+60, 30' RT to avoid temp road. Pole may be moved back to original position after temp road is removed.
- Move pole at Station 8'W'+75, 22' RT to Station 8'W'+85, 30' RT to avoid temp road. Pole may be moved to Station 8'W'+60, 18' RT after temp road is removed.
- Underground wire will be installed from new pole at Station 8'W'+85, 30' RT, crossing street then heading southwest to Station 6'W'+75, then cross back to southeast side. A three phase padmount transformer will be placed at Station 6'W'+25, 40' RT. The new underground will end at existing pole at Station 5'W'+90, 45' RT.
- The pole at Station 215'H'+55, 33' RT will be removed.
- The existing pole at Station 215'H'+60, 25' RT will have a new anchor added to the east.
- The existing pole at Station 216'H'+55, 20' LT will have a new anchor added to the west.

The work is anticipated to start in May 1, 2014 with an estimated construction time of 20 working days required.

The field contact is Scott Gauger, 2850 S. Ashland Avenue, Green Bay, WI 54307, telephone (920) 617-5151, cell (920) 660-0430, email: sigauger@wisconsinpublicservice.com. The 24-Hour Emergency Service number is (800) 450-7240.

Wisconsin Public Service - Gas has underground gas distribution facilities along the northbound travel lanes on Washington Street for the entire project. WPS also has an underground gas facility along the westbound travel lanes of High Street. The facility continues easterly along High Street to Station 216'H'+18 and crosses to the south side of High Streets and continues easterly beyond the project limits.

Prior to construction, WPS will:

- Abandon the 2" Steel main on High St from Station 215'H'+00 to Station 217'H'+75.
- Install new plastic main outside of the project limits on High Street as well as on Mueller St.

Contractors may have to work near existing WPS gas facilities and will need to take the necessary precautions if working within 18" of these lines. The minimum time required to resolve an unforeseen conflict will be four working days. A WPS requested locate will be required, as well as time to resolve the direct conflict. More than four days may be necessary to resolve a direct conflict depending on the size, material, and linear footage of the facility in direct conflict.

The work is anticipated to start in July 2014 with an estimated construction time of ten (10) working days required.

The field contact is Phil Mauermann, 2850 South Ashland Avenue, P.O. Box 19001, Green Bay, WI 54307, telephone (920) 617-5092, cell (920) 606-8448. The 24-Hour Emergency Service number is (800) 450-7280.

8. Other Contracts.

Coordinate work in accordance to standard spec 105.5.

Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

The following contracts are anticipated to be under construction within the time period of this contract, unless otherwise indicated:

Project 4095-10-71

High Street Village of Wrightstown
Turner Street – Shanty Road
STH 96
Brown County

Project 4095-10-71 is an urban reconstruction project located east of this project and will be nearing completion when this project begins. The project is anticipated to be complete by the end of October 2014.

Project 4075-28-73

Village of Wrightstown
Fox River Bridge B-5-381
STH 96
Brown County

Project 4075-28-73 is located at the proposed STH 96 east bridge abutment. Work will include the placement of wick drains and the early fill for the earth embankment at the abutment. The project will be let for construction on March 11, 2014. Construction is anticipated to begin May 5, 2014 and will be completed by July 18, 2014. Standard detail drawings will be used to locate the advanced warning signs for the construction haul road entrance and exit. Signs will be placed in coordination with Project 4095-10-71 as needed.

9. Work by Others.

The Village of Wrightstown will also be installing water and electrical services to the roundabout central islands. Contact Travis Coenen, Village of Wrightstown Superintendent of Public Works at (920) 532-0434 at least three weeks in advance of completing the grading activities at the east and west roundabout. Allow the Village two weeks to complete the

installation of the water and electrical services prior to placement of Breaker Run, Base Aggregate Dense, and Concrete Pavement.

The sanitary sewer manholes will be set by the contractor. The Wrightstown Department of Public Works will reinstall the internal manhole seals upon completion of the adjustment.

Department forces will remove the red flashing beacon, support pole, and ancillary electrical items that supplement the stop sign at the intersection of Main Street and High Street between the completion of stage 2 construction and prior to the removal of structure B-05-381. Notify the Northeast Region Traffic Section at (920) 492-5710 (secondary contact number is (920) 492-7719) a minimum of three days prior to requiring the removal of the beacon. Allow the department electricians three days to complete the removal.

10. Railroad Insurance and Coordination.

A Description

Comply with standard spec 107.17 for all work affecting Wisconsin Central Ltd. property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Wisconsin Central Ltd. (d.b.a. Canadian National).

Notify evidence of the required coverage, and duration to Jackie Macewicz, Manager Public Works at 1625 Depot St., Stevens Point, WI, 54481. Include the following information on the insurance document:

Project: 4075-28-71

Route Name: CTH DD/Broadway Street, Brown County

Crossing ID: 180060D

Railroad Subdivision: Fox River

Railroad Milepost: 227.41

A.2 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. Remove abandoned railroad communication pole line. Remove existing crossing material, prepare the new track structure, and install concrete panel crossing surface extending between points not less than one foot beyond the outside edge of the sidewalk to the north and one foot beyond the back of curb to the south. Remove the existing post mounted railroad signals and gates. Reuse the LED lights, gate mechanism, and gates. Install two new cantilevered railroad signals.

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

Contact Jackie Macewicz, Manager Public Works, 1625 Depot St., Stevens Point, WI, 54481; TELEPHONE (715) 345-2503; FAX (715) 345-2534; email jackie.macewicz@cn.ca for consultation on railroad requirements during construction.

Contact Mary Ellen Carmody, Audit Officer, Administration Service Center, 700 Pershing Street, Pontiac, MI 48340; TELEPHONE (248) 452-4705; FAX (248) 452-4972; email maryellen.carmody@cn.ca for flagging arrangements. Advise Ms. Carmody that the flagging services are to be billed at the rate for a public highway project.

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

A.4 Temporary Grade Crossing

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

A.5 Train Operation

Approximately 12 through freight trains operate daily through the construction site. Through freight trains operate at up to 45 mph. In addition to through movements, there are switching movements at slower speeds.

107-026 (20130615)

11. Environmental Protection.

Supplement standard spec 107.18 with the following:

Install and maintain proper erosion control measures throughout all phases of construction. Develop and submit an erosion control implementation plan (ECIP) to the DNR and the engineer at least 14 days prior to the preconstruction meeting. In addition to the normal permanent erosion control items, the ECIP shall contain a detailed staged plan for placing temporary and permanent landscaping items to provide for winterization of the project extending into 2015 and 2016 construction.

Removal of debris shall be in accordance to this provision. Disposal of debris shall be in accordance to standard spec 203.3.4.

Immediately after the grading operations, complete permanent landscaping unless the engineer authorizes temporary erosion control measures. Seed and/or temporarily seed exposed and topsoiled areas not to be graded until the following spring prior to October 15. After October 15, apply Soil Stabilizer, Type B, and all other erosion control measures to all exposed areas as determined necessary by the engineer.

Do not store equipment or material in wetlands or existing waterways unless areas are designated to be filled or impacted as permitted in the project's U.S. Army Corps of Engineers Section 404 Permit. No equipment may be operated on the bed and/or banks of any navigable waterway or within any wetland that is not permitted to be disturbed (except within isolated work areas).

Saturated soils must be dewatered in an upland location within a dewatering device. If the saturated soils are hauled off-site, they must be hauled in a water tight container.

12. Erosion Control.

Supplement standard spec 107.20 as follows:

Perform construction operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and finishing to minimize the period of exposure to erosion.

Replace topsoil on disturbed areas, including spot locations such as cross drains, driveways, guardrail and terminals, and intersections, immediately after grading is completed within those areas. Complete finishing operations, which includes seed, fertilizer, mulch and any other permanent erosion control measures required, within seven calendar days after the placement of topsoil.

Prior to suspension of roadway construction operations in the fall of 2014 and the fall of 2015, place all temporary and permanent erosion control devices on disturbed areas as shown on the plans or as directed by the engineer. Conduct a Winter Shutdown meeting with the engineer and the DNR prior to suspending construction operations to review the effectiveness of the installed erosion control devices and make adjustments as determined necessary to minimize erosion until construction operations resume in the spring.

13. Erosion Control Structures.

Within seven calendar days after the commencement of work on the bridge superstructure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. Prior to initial construction operations, place silt screens, and other temporary erosion control measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

14. Erosion Control, Winterization.

Submit an erosion control implementation plan (ECIP) to the WISDOT Northeast Region Environmental Section and the WDNR at least 14 days prior to the pre-construction meeting. In addition to the normal permanent erosion control items, the ECIP shall contain

a detailed staged plan for placing temporary and permanent landscaping items to provide for winterization of the project extending into 2015 and 2016 construction.

Immediately after the grading operations, complete permanent landscaping unless the engineer authorizes temporary erosion control measures. Seed and/or temporarily seed exposed and topsoiled areas not to be graded until the spring of 2015 and 2016 prior to October 15, 2014 and October 15, 2015 respectively. In all areas where seeding occurs after October 15, 2015 and October 15, 2016, apply Soil Stabilizer, Type B, and all other erosion control measures as determined necessary by the engineer.
(NER06-0118)

15. Environmental Protection, Emerald Ash Borer.

Supplement standard spec 201.3 as follows:

The emerald ash borer (EAB) has resulted in a quarantine of ash trees (*Fraxinus*, sp) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees include the following species:

Green ash (*F. pennsylvanica*) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.

Black ash (*F. nigra*) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.

Blue ash (*F. quadrangulata*) is a threatened species that is currently found only at a few sites in Waukesha County. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance.

Mountain ash (*Sorbus Americana* and *S. decora*) is not a true ash and is not susceptible to EAB infestation.

Follow and obey the following Wisconsin Department of Agriculture, Trade, and Consumer Protection order:

ATCP 21.17 Emerald ash borer; import controls and quarantine.

IMPORTING OR MOVING REGULATED ITEMS FROM INFESTED AREAS; PROHIBITION. Except as provided in sub. (3), no person may do any of the following:

(a) Import a regulated item under sub. (2) into this state if that item originates from an emerald ash borer regulated area identified in 7CFR 301.53-3.

(b) Move any regulated item under sub. (2) out of an emerald ash borer regulated area that is identified in 7CFR 301.53-3 and located in this state.

Note: the United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) periodically updates the list of regulated areas in 7CFR 301.53-3. Subsection (1) applies to new regulated areas as those areas are identified in the CFR.

REGULATED ITEMS. The following are regulated items for purposes of sub. (1): the emerald ash borer, *Agilus planipennis* (Fairmaire) in any living stage.

Ash trees.

Ash limbs, branches, and roots.

Ash logs, slabs or untreated lumber with bark attached.

Cut firewood of all non-coniferous species.

Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.

Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

Regulatory Considerations

The quarantine means that ash wood products may not be transported out of the quarantined area.

If ash trees are identified within clearing and grubbing limits of the Project, the following measures are required for the disposal:

Chipped ash trees

May be left on site if used as landscape mulch within the project limits.

May be buried on site within the right-of-way in accordance to standard spec 201.3 (14).

May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer in accordance to standard spec 201.3 (15).

May be trucked to a licensed landfill within the quarantined zone with the engineer's approval in accordance to standard spec 201.3 (15).

Burning chips is optional if in compliance with standard spec 201.3.

Chips must be disposed of immediately and may not be stockpiled.

Chipper equipment must be cleaned following post-chipping activities to ensure no spread of wood chip debris into non-quarantined counties.

Ash logs, branches, and roots

May be buried without chipping within the existing right-of-way or on adjacent properties in accordance to standard spec 201.3 (14)(15).

May be trucked to a licensed landfill within the quarantined zone with the engineer's approval in accordance to standard spec 201.3 (15).

Burning is optional if in compliance with standard spec 201.3.

Ash logs, branches, and roots must be disposed of immediately and may not be stockpiled.

All additional costs will be incidental to clearing and grubbing items.

Anyone moving firewood or ash products from the state or these counties is subject to state and federal fines up to \$1,000.00. All fines are the responsibility of the contractor. Obtain updated quarantine information at the DNR Firewood Information Line at (800) 303-WOOD.

Furnishing and Planting Plant Materials

This applies to projects in the emerald ash borer (EAB) quarantined zones to include Fond du Lac, Ozaukee, Sheboygan, and Washington counties.

Supplement 632.2.2 with the following:

The emerald ash borer (EAB) has resulted in a quarantine of ash trees (*Fraxinus*, sp) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees may be obtained from inside or outside the quarantine area and planted within the quarantined area. Ash trees from within the quarantine area may not be transported and planted into the non-quarantined area.

Updates for compliance

Each year, as a service, the Wisconsin Department of Agriculture, Trade and Consumer Protection distributes an updated federal CFR listing to nursery license holders and other affected persons in this state. More frequent updates, if any, are available on the department's website at www.datcp.state.wi.us. Subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from the department. Persons may request update notices by calling (608) 224-4573, by visiting the department's website, or by writing to the following address:

Wisconsin Department of Agriculture, Trade and Consumer Protection
Division of Agricultural Resource Management
P.O. Box 8911
Madison WI 53708-8911

(2) REGULATED ITEMS. More frequent updates, if any, are available on the department's website at www.datcp.state.wi.us. Subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from the department. Persons may request update notices by calling (608) 224-4573, by visiting the department's website, or by writing to the above address. (NER11-03088)

16. Environmental Protection, Aquatic Exotic Species Control.

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

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

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf for disinfection:

1. Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
 - a. Washing with ~212° F water (steam clean), or
 - b. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - c. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104° F) application.

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

107-055 (20130615)

17. Environmental Protection, Dewatering.

Supplement standard spec 107.18 as follows:

If dewatering is required, treat the water to remove suspended sediments by filtration, settlement or other appropriate best management practice prior to discharge. The means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include the details of how the intake will be managed to not cause an increase in the background level turbidity prior to treatment and any additional erosion controls necessary to prevent sediments from reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Management Technical Standards, Dewatering Code #1061 and Sedimentation Basins #1064. The cost of all work and materials associated with water treatment and/or dewatering is incidental to the bid items the work is associated.

18. Wetland Restoration.

A Description

The department will provide oversight for the construction and monitoring of the wetland restoration construction. The department's Environmental Coordinator shall be contacted to coordinate restoration work 10 business days prior to any seeding or the placement of any plantings or wildlife structures. The department contact is Michael Helmrick, (920) 492-7738.

There is a threshold for the amount of invasive species allowed in the wetland during the two year proving period. The thresholds were based on the quality of the existing wetlands. The impacted wetland area would be divided west and east of Station 128'EB'+75. No invasive species should be in the vernal pools. The threshold parameters on the west side would be a minimum of 85% native coverage and up to 15% invasive coverage with no reed canary grass. The east side thresholds would be a minimum of 85% native coverage and up to 15% invasive coverage not including reed canary grass in the amount of invasive coverage. Invasive species such as phragmites will not be allowed in the establishment area.

This item establishes the ground pressure specifications and cleaning requirements of motorized vehicles used on the Wetland Restoration portion of the project. This work includes all wetland planting and seeding, placement of Wildlife Structures and Wetland Grade Restoration.

B Materials

To avoid rutting of the site and achieve accurate grading, wheeled or tracked equipment used for excavation or final grading within the restoration area shall have a maximum operating ground pressure of no more than 5.00 psi. A Caterpillar D5N LGP with a 30-inch track or a Caterpillar D6N LGP with a 34-inch track are examples of equipment that meet these specifications.

Any agricultural tractor or equipment used for Wetland Seeding shall have a maximum ground pressure of no more than 8.0 psi in operating condition. Soil conditions may dictate the use of other equipment with a lower ground pressure.

The engineer reserves the right to have any equipment that is rutting the site removed from the project.

C Construction

Construction work within the wetland restoration area is scheduled from the late summer through the early fall seasons to provide the best soil drainage condition.

Prior to final grading, topsoil placement and seeding in the Wetland Restoration area, all equipment designated for use shall be cleaned offsite by high-pressure spray or steam equipment and shall be inspected and approved by the engineer prior to any movement into the Wetland Restoration area. Once cleaned and approved, such equipment shall be dedicated to completion of seeding, grading, discing, topsoil placement or other relevant tasks until use for other project purposes.

D (Vacant)

E Payment

No additional payment will be made for these restrictions regarding Construction Equipment. All costs to the contractor for providing, operating, and cleaning low ground pressure equipment as required by this specification shall be considered incidental to the Work.

19. Wetland Grade Restoration.

A Description

This item is a procedural specification for the restoration of the pre-construction soils and elevations within the temporary wetland fill supporting the bridge construction access roads. The approximate area of the temporary wetland fill is 1.4 acres.

B Materials

Only cleaned and approved low ground pressure equipment as described in the special provision for Construction Equipment shall be used.

The engineer reserves the right to have any unclean equipment or equipment that is rutting the site removed from the project.

C Construction

The following procedure shall be used for Wetland Grade Restoration:

Remove temporary wetland fill. The fill material shall be removed using Low Ground Pressure (LGP) equipment having straight-edged blades or buckets. No toothed excavating buckets will be allowed in order to minimize disturbance of the native wetland soils.

The fill shall be removed in an orderly manner, working in only one location at a time while erosion control measures remain in place at other locations. Fill shall be removed carefully in two or more lifts or layers, taking care not to gouge or dig into the native soil substrate beneath the geotextile that forms the separation boundary between the temporary fill and the native wetland topsoil. Any temporary fill materials that are sidecast or incidentally fall onto adjacent areas of the wetland shall be removed using hand tools or other means approved by the engineer.

The final lift of fill removed shall be of a thickness that facilitates complete recovery and removal of the geotextile fabric without excess spillage of fill material. Removal of the geotextile fabric shall be accomplished by hand or by a mechanical method approved by the engineer. Removal of fill material and geotextile fabric to be paid for under "Temporary Haul Road Access for Structure Construction"

Restore wetland grade. After all temporary wetland fill and geotextile fabric has been removed, the wetland grade shall be restored to the pre-existing contours shown on the plans using approved and cleaned Low Ground Pressure equipment as described in Special Provision Wetland Restoration.

Prior to using any mechanized equipment, the elevations of the wetland grade shall be checked by survey cross sections to determine the locations and extent of any settlement or displacement that has occurred during bridge construction. Survey of the wetland to be paid for under "Wetland Restoration Survey".

All areas which are found by survey to have experienced settlement or displacement equal or greater than 0.25 feet shall be restored their prior elevation using the procedures under Subsoiling. An electronic digital terrain model of the wetland is available upon request.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Andrew Fulcer at (920) 492-5664. Methods of operations, including preparatory work, staging, site clean-up or storing material, causing impacts to other wetlands or waters are not permitted.

Construction of the temporary causeways within the banks of the Fox River shall comply with the causeway concept included in the U.S. Army Corps of Engineers Section 404. If a method of construction is chosen that is not covered in the department's 404 Permit, submit hydraulic calculations for the restricted waterway confirming that the causeway will have no adverse effect on the river flows. Provide hydraulic computations and scouring determinations as necessary. The engineer will complete the review of the hydraulic data within 10 days of submittal.

If a method of construction is chosen that is not covered by the department's 404 Permit, obtain the proper additional approvals required from the U.S. Army Corps of Engineers. It is the contractor's responsibility to determine if additional permits are required. Obtain the additional permits prior to beginning construction operations requiring the permits. No time extensions as discussed in standard spec 108.10 will be granted for the time required to apply for and obtain the additional approvals. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the approval requested.

No change in payment will be granted if a method of construction is chosen that does not comply with the 404 Permit and additional permits are not obtained.

21. Construction Over or Adjacent to Navigable Waters.

Supplement standard spec 107.19 with the following:

The Fox River is classified as a navigable waterway.
107-060 (20040415)

Submit a contingency plan to the engineer prior to the start of construction. Include the names and telephone numbers of personnel and a list of equipment that will be available to correct any navigation problems that may arise during non-working hours.

Provide industry accepted measures and precautions to prevent accidental dropping of debris, sparks, flames, lighted or other damaging objects onto boats and water users passing beneath the bridge.

Ensure the rights and safety of the navigating public. Place appropriate warning signs and buoys upstream and downstream of the project site. In accordance to the U.S. Coast Guard Standards, place marker lights on all watercraft and equipment that will remain moored, anchored, or otherwise floating on the river between dusk and dawn. Sign, mark, or light all other potential navigation hazards associated with the project including, but not limited to, construction machinery, rigging, and temporary structures. Provide water space with horizontal and vertical clearances to allow for safe public navigation through the construction site at all times unless stated otherwise in the provisions. Payment for this accommodation is considered incidental to the contract work.

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

John Roelke, License Number AII-119523, inspected Structure B-05-0736 for asbestos on March 14, 2011. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Andrew Fulcer, (920) 492-5664.

In accordance with NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days prior to beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Kathie VanPrice, (920) 492-7175 and DOT BTS-ESS attn: Hazardous Materials Specialist PO Box 7965, Madison, WI. 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-05-0736, STH 96 over Fox River
- Site Address: 1.4mile east of the junction with CTH U
- Ownership Information: WisDOT Transportation Northeast Region, 944 Vanderperren Way, Green Bay, WI 54304
- Contact: Andrew Fulcer
- Phone: (920) 492-5664
- Age: 80 years old. This structure was constructed in 1934
- Area: 8497 SF of deck

Insert the following paragraph in Section 6.g.:

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

107-125 (20120615)

23. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

107-001 (20060512)

24. Coordination with Businesses.

The contractor shall arrange and conduct a meeting between the contractor, the department, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting prior to the start of work under this contract and hold two meetings per month thereafter.

108-060 (20030820)

The village and Wrightstown School District and companies supplying bussing services for the school district shall be invited to attend the meeting.

25. Excavation Common.

A Description

Conform to standard spec 205 and as modified in this special provision.

Any existing abandoned underground utilities encountered within the common excavation limits shall be removed in accordance to standard spec 205.3.10(1) and disposed of offsite. Seal all open ends of pipe in accordance to standard spec 204.3.3.2(3). Removal of existing abandoned underground utilities within the common excavation limits will be incidental to the bid item "Excavation Common". Sealing open ends of pipes shall be paid for under the "Sealing Pipes" bid item.

Add the following sentence to standard spec 205.3.3(1):

Pump water as necessary to dewater work area throughout construction until permanent drainage facilities are constructed to drain the work area. Standing water shall not be allowed on the grade throughout the project duration, including during winter shut down. The cost of all work and materials associated with dewatering and pumping is incidental to other items of work.

26. National Geodetic Survey Control Station.

One National Geodetic Survey Vertical Control Station (PN0115) is located within the project limits southeast of the Wisconsin Central Ltd. Track and existing STH 96. The monument is to remain in place. Avoid disturbance to the control station and avoid ground disturbing activities within 10 feet of the control station.

27. Notice to Contractor – Contamination Within Construction Limits.

The department completed testing for soil and ground water contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following site:

Site 1 – Station 504'MNB'+00 to Station 505'MNB'+50, RT of reference line and Station 200'H'+00 to Station 201'H'+50, RT of reference line
(525 Main Street, Bridgeport Citgo)

Site 2 – Station 210'H'+50 to Station 211'H'+25 LT of reference line
(101 High Street, M&I Property)

Site 3 – Station 109'EB'+50 to Station 111'EB'+00, LT of reference line
(230 Broadway Street. Lamers Property)

Site 4 – Station 301'EB'+50 to Station 302'EB'+75, RT of reference line and Station 109'EB'+00 to Station 111'EB'+00 RT of reference line
(605 Main Street, Tom's Auto Body)

Site 5 – Station 301'EB'+00 to Station 301'EB'+75, LT of reference line
(618 Main Street, Aerts Property)

Site 6 – Station 104'BEB'+50 to Station 105'BEB'+00. LT of reference line
(344 Broadway Street, Tiger Lanes)

The contaminated soils at the above sites that are within the excavation limits of this project will be removed as part of this contract. It is estimated that 380 Tons of material will be removed and paid for under item 205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil.

Provide the engineer with a written notice at least 10 calendar days prior to the schedule date of beginning work in the contaminated areas.

The Hazardous Materials Report is available by contacting Kathie VanPrice, Wisconsin Department of Transportation, Environmental Coordinator, 944 Vanderperren Way, Green Bay, Wisconsin, 54304, (920) 492-7175.

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

Supplement standard spec 107.1(2) with the following:

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

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

Develop, delineate, and enforce the health and safety exclusions zones for each contaminated site location pursuant to 29 CFR 1910.120.
107-115 (20050502)

29. Notice to Contractor – Layout Information for Permitted Impact to Wetlands.

Upon award of the contract, the department can supply information for laying out boundaries of permanent and temporary impact to wetlands as defined under the Section 404 permit. Contact Andrew Fulcer, (920) 492-5664.

30. Notice to Contractor – Construction Staking for Railroad Crossing.

The department will perform staking for the Wisconsin Central Limited track crossing on Broadway Street. The department will not perform any other construction staking for this contract. The contractor shall perform all survey required to layout and construct the work under this contract, subject to engineer's approval.

31. Notice to Contractor - Causeways.

No more than one causeway at a time will be allowed in the Fox River during the removal of B-5-736. Once construction of the causeway for Structure B-5-736 as shown in the plans has been started the structure and causeways must be removed within ten calendar weeks (70 days) of initiating placement of causeway materials into the Fox River.

32. Notice to Contractor – Removing Concrete.

The quantities for removing pavement, removing curb and gutter, and removing concrete sidewalk shown on the plan is based on existing conditions prior to the start of removals to be done as part of the Village's sanitary sewer and water main construction project.

The final quantity for payment will be based on actual field measurements of pavement, curb and gutter, and concrete sidewalk removed as part of this project. Final measured quantities are anticipated to vary from plan quantity.

33. Notice to Contractor - Survey Monument Coordination.

The contractor shall notify the Northeast Regional Survey Coordinator, Cormac McInnis 920-492-5638, at least 30 days prior to the beginning of construction activities. The Regional Survey Coordinator will then make the arrangements to have the Public Land Survey Monument and Landmark Reference Monuments tied out.

After the majority of construction is complete (prior to restoration) the contractor shall again notify the Survey Coordinator that the site is ready for the replacement of the monuments. The Survey Coordinator will then make arrangements to have the Public Land Survey Monument and Landmark Reference Monuments reset. (NER14-0429)

34. Clearing and Grubbing.

Do not grub in wooded swamp wetland areas under bridges outside the limits of haul road or fingers used to construct pier footings. Submit to the department a clearing plan that will minimize ground disturbance in the area that will not be grubbed.

Only clear trees necessary for construction of the project. Clearing the entire right-of-way is not allowed. Coordinate with engineer all areas to be cleared before work starts.

Clearing trees in wetland areas is considered a wetland impact that is regulated by the project's U. S. Army Corps of Engineers Section 404 permit.

35. Removing Old Structure Over Waterway With Minimal Debris Station 206'H'+00, Item 203.0600.S.01.

Conform to standard spec 203 as modified in this special provision.

Replace standard spec 203.3.2.2(1) with the following:

Except as specified below for closing culverts, remove the entire top slab of box culverts and the entire superstructure of all other culverts and bridges designated for removal. Completely remove existing piles, cribs, or other timber construction within the limits of new embankments, or remove these structures to an elevation at least 2 feet below finished ground line. Remove existing substructure units 3 and 4, located adjacent to the navigation channel, to an elevation no higher than 2 feet below the stream bed. Remove remaining sidewalls or substructure units in water to an elevation no higher than the elevation of the natural stream or lake bed, or, if grading the channel is required under the contract or the plans, to the proposed finished grade of the stream or lake bed. Remove sidewalls or substructure units not in water down to at least 2 feet below natural or finished ground line.

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

- (1) Remove the existing Structure B-5-736 over the Fox River in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

- (2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:
 - Methods and schedule to remove the structure.
 - Methods to control potentially harmful environmental impacts.
 - Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
 - Methods to control dust and contain slurry.
 - Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
 - Methods for cleaning the waterway or wetlands.
- (3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

Add the following Removing Old Structure bid item to standard spec 203.5.1:

ITEM NUMBER	DESCRIPTION	UNIT
203.0600.S.01	Removing Old Structure Over Waterway With Minimal Debris Station 206'H'+00	LS
203-020 (20080902)		

36. Removing Concrete Sidewalk.

Supplement standard spec 204 with the following:

Removal of the concrete sidewalk where buildings abut the right-of-way shall include performing a full depth sawcut approximately one foot from the buildings, or as close as possible. Remove the remaining pieces of sidewalk adjacent to the buildings using methods approved by the engineer. Payment of the full depth sawcut will be paid for under the bid item Sawing Concrete. During the saw cutting and sidewalk removal, take extreme care to not damage the buildings. The contractor will be responsible for any damage to the buildings. Salvage rebar that extend into the sidewalk from the buildings and incorporate into the new sidewalk.

Leave sidewalk in place until such time it is necessary to remove to perform utility work or install new sidewalk.

37. Removing Guardrail.

Remove guardrail in accordance to the pertinent requirements of standard spec 204 and as hereinafter provided.

Carefully remove, disassemble at all joints, and stockpile at a location on the right-of-way, outside the construction limits, all salvageable posts, guardrail and hardware for pickup by Brown County Forces. Cutting of rail panels is not permitted.

Give two days advance notice to Brown County before starting the beam guard removal work to coordinate pickup arrangements. Contact Brown County at (920) 662-2166.

Remove and properly dispose of all other material from the right-of-way.
(NER11-0127)

38. Abandoning Sewer, Item 204.0291.S.

A Description

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

B Materials

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

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

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

204-050 (20080902)

39. 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 WDNR approved bioremediation and landfill facility. The closest WDNR approved bioremediation and landfill facilities are:

Advanced Disposal Hickory Meadows Landfill
W3105 Schneider Road
Hilbert, Wisconsin 54129

Waste Management Solutions Ridgeview Landfill
6207 Hempton Lake Road
Whitelaw, Wisconsin 54247

Perform this work in accordance 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).

Perform this work in accordance 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 Location(s)

The department completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that lead and/or petroleum-contaminated soil and/or groundwater is present at the following location(s):

- Site 1 – Station 504'MNB'+00 to Station 505'MNB'+50, RT of reference line and Station 10'H'+20 to Station 11'H'+50, RT of reference line
(525 Main Street, Bridgeport Citgo)
- Site 2 – Station 210'H'+50 to Station 211'H'+25 LT of reference line
(101 High Street, M&I Property)
- Site 3 – Station 109+50 to Station 111+00, LT of reference line
(230 Broadway Street, Lamers Property)

- Site 4 – Station 301+50 to Station 302+75, RT of reference line and Station 109+00 to Station 111+00 RT of reference line (605 Main Street, Tom's Auto Body)
- Site 5 – Station 301+00 to Station 301+75, LT of reference line (618 Main Street, Aerts Property)
- Site 6 – Station 104+50 to Station 105+00, LT of reference line (344 Broadway Street, Tiger Lanes)

Contaminated soils, groundwater, and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils, groundwater, and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. 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: Kathie VanPrice
 Wisconsin DOT, Northeast Region
 Address: 944 Vanderperren Way
 Green Bay, WI 54324
 Phone: (920) 492-7175
 Fax: (920) 492-5640
 E-mail: Kathie.VanPrice@dot.state.wi.us

Name: Dan Haak
 TRC Environmental Corporation
 Address: 708 Heartland Trail, Ste 3000
 Madison, WI 53717
 Phone: (608) 826-3628
 Fax: (608) 826-3941
 E-mail: DHaak@trcsolutions.com

A.3 Coordination

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

Consultant: TRC Environmental Corporation
 Address: 708 Heartland Trail, Suite 3000, Madison, WI 53717
 Fax: (608) 826-3941

Contact: Dan Haak
 Phone: (608) 826-3628 (office), (608) 886-7423 (mobile)
 E-mail: DHaak@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the bioremediation and landfill 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 and landfill facility.
5. Identifying contaminated groundwater to be pumped for treatment and disposal (if dewatering is necessary). Coordinating groundwater characterization and approval for disposal of contaminated water.

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 WDNR approved bioremediation and landfill 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 and landfill 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 may be present within the construction limits. Protect all groundwater monitoring wells to maintain their integrity. 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 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.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site 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 Kathie VanPrice with the department, at (920) 492-7175.

A.6 Health and Safety Requirements for Workers Remediating Contamination

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with lead, 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:

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

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation or landfill disposal. 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 and landfill facility, or
- Potentially contaminated material 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 250 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material in accordance 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.

Directly load and haul soils designated by the environmental consultant for offsite disposal to the WDNR approved bioremediation and landfill facility. Verify that vehicles used to transport contaminated material are licensed for such activity in accordance to applicable state and federal regulations. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

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.

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.

Pump contaminated water that exceeds surface water discharge limits, as determined by environmental consultant, into temporary holding tanks provided by others, 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 in accordance 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.

Discharging contaminated groundwater to any location other than that approved and provided by the environmental consultant, is at the contractor's cost. 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 statutes, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Soil in tons of contaminated soil accepted by the bioremediation and landfill facility as documented by weight tickets generated by the bioremediation and landfill facility. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the bioremediation and landfill 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 Contaminated Soil	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and treatment/disposal of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; dewatering of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.
205-003 (20080902)

40. Temporary Shoring, Item 206.6000.S.**A Description**

This special provision describes designing and providing temporary shoring at locations the plans show.

B Materials**B.1 Shoring Design**

Provide a shoring design for each location where the plan requires temporary shoring. Have a professional engineer, registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements verify the adequacy of the design. Submit one copy of each shoring design, signed and sealed by the same professional engineer verifying the design, to the engineer for incorporation into the permanent project record.

C Construction

Provide temporary shoring at each required location conforming to the design developed for that location.

Remove the shoring when it is no longer needed unless the engineer allows it to remain in place. Backfill the space that is excavated but not occupied by the new permanent construction conforming to standard spec 206.3.13.

D Measurement

The department will measure Temporary Shoring by the square foot, acceptably completed, at locations the plans show, measured as the area of exposed face in the plane of the shoring from the ground line in front of the shoring to a maximum of one foot above the retained grade. Shoring used for staged construction in multiple configurations without removal and reinstallation will be measured once based on the configuration with the largest area of exposed face.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
206.6000.S	Temporary Shoring	SF

Payment is full compensation for designing and providing shoring; for providing a signed and sealed copy of the design; and for backfilling and removing the shoring.

The department will not pay for temporary shoring, installed for contractor convenience that is not required in the plans.

206-005 (20110615)

41. 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://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>

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

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

^[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 subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.
- (2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:
 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.

3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

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

Required Certification Level:	Sampling or Testing Roles:
Aggregate Technician IPP Aggregate Sampling Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling ^[1]
Aggregate Technician IPP Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

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

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

B.3 Laboratory

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

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

<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

- (1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 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 QV tests.
 3. Department IA tests.
 4. Four-point running average of the QC tests.
- (3) Except as specified under B.8.2.1 for nonconforming QV 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.

- (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
- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.
- (3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
 1. Control limits are at the upper and lower specification limits.
 2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
 3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
 4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

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

B.6.3 Liquid Limit and Plasticity

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

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

- (1) Do not blend additional material on the roadbed to correct gradation problems.
- (2) Notify the engineer whenever the running average exceeds a warning limit. When 2 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:

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 2 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

according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Reviewing required worksheets and control charts.
 6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

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

C (Vacant)

D (Vacant)

E Payment

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

- (2) For material represented by a running average exceeding a control limit, the department will reduce pay 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 (20100709)

42. Coloring Concrete Red, Item 405.0100.

Supplement standard spec 405.2.4.1, Colored Concrete Mix Approval General, as follows:

Test slab color will be evaluated for approval no earlier than 5 days after the test panel was poured and sealed.

43. Protection of Concrete.

Supplement standard spec 415.3.14 as follows:

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

The cost for providing the finisher(s), the necessary equipment, and materials shall be construed to be included in the contract unit price for each concrete item.

(NER11-0127)

44. Expansion Device, B-5-381.

A Description

This special provision describes furnishing and installing an expansion device in accordance to standard spec 502, as shown on the plans, and as hereinafter provided.

B Materials

The minimum thickness of the polychloroprene strip seal shall be ¼-inch for non-reinforced elastomeric glands and 1/8-inch for reinforced glands. Furnish the strip seal gland in lengths suitable for a continuous one-piece installation at each individual expansion joint location. Provide preformed polychloroprene strip seals that conform to the requirements ASTM D3542, and have the following physical properties:

Property Requirements	Value	Test Method
Tensile Strength, min.	2000 psi	ASTM D412
Elongation @ Break, min	250%	ASTM D412
Hardness, Type A, Durometer	60 ± 5 pts.	ASTM D2240
Compression Set, 70 hours @212°F, max.	35%	D395 Method B Modified
Ozone Resistance, after 70 hrs. at 100°F under 20% Strain with 100 pphm ozone	No Cracks	ASTM D1149 Method A
Mass Change in Oil 3 after 70 hr. 212°F	45%	ASTM D471
Mass Change, max.		

Install the elastomeric strip seal gland with tools recommended by the manufacturer, and with a lubricant adhesive conforming to the requirements of ASTM D4070.

The manufacturer and model number shall be one of the following approved strip seal expansion device products:

Manufacturer	Model Number		
	Strip Seal Gland Size*		
	4-Inch	5-Inch	6-Inch
D.S. Brown	SSA2-A2R-400	SSA2-A2R-XTRA	SSA2-A2R-XTRA
R.J. Watson	RJA-RJ400	RJA-RJ500	RJA-RJ600
Watson Bowman Acme	A-SE400	A-SE500	A-SE800
Commercial Fabricators	A-AS400	-----	-----

*Expansion device strip seal gland size requirement of 4", 5", and 6" shall be as shown on the plans.

Furnish manufacturer's certification for production of polychloroprene represented showing test results for the cured material supplied, and certifying that it meets all specified requirements.

The steel extrusion or retainer shall conform to ASTM designation A 709 grade 36 steel. After fabrication, steel shall be galvanized conforming to the requirements ASTM A123.

Manufacturer's certifications for adhesive and steel shall attest that the materials meet the specification requirements.

502-020 (20110615)

45. Expansion Device Modular B-5-381, Item 502.3110.S.01.

A Description

This special provision describes furnishing and installing a shop-fabricated waterproof modular expansion device in accordance to standard spec 502, the plans, and as hereinafter provided. The modular expansion joint device shall seal the deck surface, curbs, gutters, and parapet walls as indicated on the plans. Any leaking or seeping of water through the joint will be cause for rejection of the modular expansion device.

B Materials

B.1 General

Furnish parts and elements that have material properties meeting the physical and chemical requirements shown in their manufacturer's technical data or as noted below, except as modified by pertinent parts of the standard specifications, this special provision, or the plans. Furnish certified test results from the manufacturer attesting to physical and chemical properties. Do not use any aluminum components or hardware.

B.2 Modular Expansion Device System Components

Furnish components for the Modular Expansion Device System from one of the following manufacturers and model series:

- D.S. Brown Company, Steelflex Modular D-Series
(419) 257-3561
- R.J. Watson, Inc., Modular RJW-Series
(716) 741-2166
- Watson, Bowman, & Acme Inc., Wabo-Maurer STM-Series
(716) 691-7566

B.3 Steel Plates, Bars, Shapes, and Sheets

Furnish steel plates, bars, shapes, and extrusions that have been fabricated from high strength, low alloy grade 50 or grade 50W steel conforming to ASTM A709, or as shown on the approved shop drawings. Anchor bars and support bar boxes may be fabricated from ASTM A709 grade 36 steel. Furnish anchor bolts, bolts, nuts, and washers that conform to the requirements of ASTM A325. Secondary shapes or joint components may be assembled with bolts, nuts, and washer conforming to ASTM A490.

Furnish stainless steel sheets for the sliding surfaces of support bars that conform to the requirements of ASTM A167, alloy 304, 20 micro-inch RMS finish.

B.4 Elastomeric Seal Elements

Furnish preformed elastomeric seal elements that are polychloroprene (neoprene) of a rectangular or strip cross section having a minimum thickness of ¼-inch and conform to ASTM D3542 modified to omit the recovery test. The elastomeric seal elements shall meet the following physical properties:

Property	Requirement	Test Method
Tensile Strength, min	2000 psi	ASTM D412
Elongation @ Break, min	250%	ASTM D412
Hardness, Type A, Durometer	60± 5 pts	ASTM D2240
Compression Set, 70 Hrs @ 212° F, max	35%	D395 Method, B Modified
Ozone Resistance, after 70 hours at 100° F under 20% Strain with 100 pphm ozone	No Cracks	ASTM D1149 and D518, Method A
Mass Change in Oil 3 after 70 hours @ 212° F, Mass Change, max	45%	ASTM D471

Furnish manufacturer's certification for production of polychloroprene represented, showing test results for the cured material supplied and certifying that it meets all specified requirements.

The seal element shall be one piece, and full length of the expansion joint including curb and parapet face projections. The lubricated adhesive for installing the preformed elastomeric elements in place shall be one-part moisture curing polyurethane and hydrocarbon solvent mixture as recommended by the manufacturer.

B.5 Support Bars

Place support bars parallel to the roadway at a maximum support assembly spacing of 4'-0". Furnish support bars that are not less than 1½-inches in width and at least 4-inches in height; each transverse center beam shall have an individual support bar.

Support bars shall incorporate stainless steel sliding surfaces to minimize resistances to joint movements. Stainless steel shall be welded to support bars. Support the support bars above, below, and laterally as required to prevent uplifting, transmit bearing loads, and to maintain positioning of the bar.

Fabricate support bar bearings from polyurethane compound with PTFE self lubricating surfaces having engineering properties equivalent to adiprene, Teflon, or cast nylon with MDS. Positively lock the support bar bearings and springs or spacers into the support box by a dowel or pin. The connection must permit subsequent removal and replacement of the bearings and springs. The support bar springs shall be constructed similarly to the bearings but shall provide the required precompressive force to maintain the support bar in place while under traffic loads. Use a suitable equilibrium device that works counter to the compression forces of the sealing elements to maintain equalized expansion properties for each element across the modular joint assembly. Furnish anchor plates for the support bar springs or neoprene blocks that have a minimum thickness of ¾-inch.

B.6 Transverse Center Beams

Transverse center beams shall be at least of 4½-inches in height and have a minimum vertical web thickness of ¾-inch. Design transverse center beams for an AASHTO HS25 live loading plus 30 percent impact. Make shop splices in the transverse center beam with a full penetration weld. The exterior transverse beams shall have a minimum vertical web thickness of ¾-inch.

The connections between the transverse center beams and support bars shall be a full penetration weld in accordance to the details shown on the plans. Full penetration welds to be tested by ultrasound using the compressive criteria.

B.7 Support Bar Boxes

Furnish support bar boxes that consist of steel plates not less than ½-inch in thickness fabricated with continuous welds at all joints. The inside dimensions of the box shall be consistent with all boxes and within +0.040 inches of prescribed height as measured where

the bearings and spring compress about the support bar. Fabricate support box plates with a continuous weld. Make anchorage details as shown on the plans.

B.8 Structural Steel Surfaces

Galvanize after fabrication, in accordance to ASTM A123, all structural steel surfaces of the expansion joint devices and anchorages, except ASTM A-490 bolts, components of stainless steel, and parts coated with polyurethane, adipene, nylon, or Teflon.

Galvanize or metallize in accordance to standard spec 635 all bolts, nuts, washers, and steel components that are not galvanized using the above procedure, including all ASTM A-490 bolts.

If a retainer clip is used for locking the neoprene strip type seal, continuously weld it on its top side. Due to the galvanizing coating requirement, also make a continuous weld underneath the clip.

All welding shall be in accordance to AWS D1.5 or D1.6 of the welding code and shall be done by certified welders only. A shop certified under AISC category for simple structures shall perform fabrication.

The fabricator will be permitted to shop weld pre-galvanized transverse roadway sections, complete with anchorages, of the expansion device steel extrusions. The pre-galvanized roadway sections shall be not less than 10 feet long. The pre-galvanized roadway side sections shall have additional anchorages, if required, so as to provide an anchorage within 9 inches of each end of the section. Abutting ends shall be beveled $\frac{1}{4}$ -inch on three sides and deburred. All galvanizing shall be completely removed from the areas to be welded. The pre-galvanized sections shall be groove welded on three sides with care taken to prevent weld material from entering the gland groove. The weld across the top of the extrusion shall be ground smooth and all areas of galvanizing damaged by the welding operations shall be repaired in accordance to standard spec 635. Make field splices in transverse center roadway sections with a partial penetration weld.

C Construction

The manufacturer of the prefabricated expansion joint assembly shall prepare shop drawings showing details of the assembly and installation.

Support the modular joint assembly at 8'-0 minimum spacing along both sides of the joint. Construct the modular expansion device system in accordance to the details shown on the shop drawings. Tolerance requirements shall be in accordance to AASHTO specifications.

Install in accordance to the plan details, the manufacturer's and supplier's approved shop drawings, and as directed by the engineer. In addition, the manufacturer shall submit current product literature with the shop drawings and the shop drawings shall reflect that literature.

Remove all modular expansion joint forming material from the joint opening. Pre-set the modular joint assembly in accordance to the approved shop drawings, joint temperature setting data, and specifications. The maximum joint opening for a single modular unit shall be 3 inches.

The joint assembly manufacturer shall furnish technical assistance to the contractor and engineer through the personal services of a technical representative, who is a fulltime employee of the manufacturer during installation of the joint sealing systems. This representative shall be accessible to the engineer and shall be at the site during the work that involves the setting of all parts of each modular expansion joint assembly. The contractor shall be responsible for informing the representative prior to the date of installation.

D Measurement

The department will measure Expansion Device Modular (Structure) as a single lump sum unit for the structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
502.3110.S.01	Expansion Device Modular B-5-381	LS

Payment is full compensation for furnishing and placing the device complete in place; furnishing and completely installing all elements and parts of the joints, anchors, armor or structural metal; galvanizing materials; furnishing and installing all hardware, pads, bonding material, and reinforcing bars within the blockout not otherwise covered for payment, and barrier railing plates.

502-021 (20100709)

46. Polymer Overlay, Item 509.5100.S.

A Description

This special provision describes furnishing and applying two layers of a two-component polymer overlay system to the bridge decks shown on the plans. The minimum total thickness of the overlay system shall be 1/4".

B Materials

B.1 General

Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders from the department's approved product list.

B.2 Polymer Resin

The polymer resin base and hardener shall be composed of two-component, 100% solids, 100% reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time ^A	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity ^A	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness ^B	60-75	ASTM D2240
Absorption ^B	1% maximum at 24 hr	ASTM D570
Tensile Elongation ^B	30% - 70% @ 7 days	ASTM D638
Tensile Strength ^B	>2000 psi @ 7 days	ASTM D638
Chloride Permeability ^B	<100 coulombs @ 28 days	AASHTO T277

^A Uncured, mixed polymer binder

^B Cured, mixed polymer binder

B.3 Aggregates

Furnish natural or synthetic aggregates that have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing, clean, free of surface moisture, fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and meet the following properties and gradation requirements:

Aggregate Properties:

Property	Requirement	Test Method
Moisture Content*	½ of the measured aggregate absorption, %	ASTM C566
Hardness	³ 6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face and 80% with at least 2 fractured faces of material retained on No.16	ASTM 5821
Absorption	≤1%	ASTM C128

* Sampled and tested at the time of placement.

Gradation:

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

B.4 Required Properties of Overlay System

The required properties of the overlay system are listed in the table below:

Property	Requirement ^A	Test Method
Minimum Compressive Strength at 8 Hrs. (psi)	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C 579 Method B, Modified ^B
Thermal Compatibility	No Delaminations	ASTM C 884
Minimum Pull-off Strength	250 psi @ 24 hrs	ACI 503R, Appendix A

^A Based on samples cured or aged and tested at 75°F

^B Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

B.5 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days prior to application, submit product data sheets and specifications from the manufacturer, and a certified test report to the engineer for approval. The engineer may request samples of the polymer and/or aggregate, prior to application, for the purpose of acceptance testing by the department.

For materials not pre-qualified, in addition to the above submittals, submit product history/reference projects and a certified test report from an independent testing laboratory showing compliance with the requirements of the specification.

The product history/reference projects consist of a minimum of 5 bridge/roadway locations where the proposed overlay system has been applied in Wisconsin or in locations with a similar climate - include contact names for the facility owner, current phone number or e-mail address, and a brief description of the project.

Product data sheets and specifications from the manufacture consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

C Construction

C.1 General

Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer's instructions. The manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly.

Store resin materials in their original containers in a dry area. Store and handle materials according to the manufacturer's recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

C.2 Deck Preparation

C.2.1. Deck Repair

Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to repair the concrete deck will be paid for under other items. Ensure that products used for deck patching are compatible with the polymer overlay system.

NOTE: Some polymer systems require concrete patch material to be in place a minimum of 28-days before overlaying - contact polymer manufacturer before completing deck patching/repair.

C.2.2 Surface Preparation

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface a profile meeting CSP 5 according to the International Concrete Repair Institute Technical Guideline No. 03732. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ACI 503R, Appendix A of the *ACI Manual of Concrete Practice*. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of ¼ inches or more is greater than 50% of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application of the overlay system.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 by sand blasting, using wire wheels, or other approved method.

Just prior to overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely. If any prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (breeze blast) the exposed surfaces.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Create a transitional area approaching transverse expansion joints and ends of the deck using the shotblasting machine or other approved method. Remove 5/16" to 3/8" of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

The engineer may consider alternate surface preparation methods per the overlay system manufacturer's recommendations. The engineer will approve the final surface profile and deck cleanliness prior to the contractor placing the polymer overlay.

C.3 Application of the Overlay

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the overlay system if any of the following exists:

- Ambient air temperature is below 50°F;
- Deck temperature is below 50°F;
- Moisture content in the deck exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance to ASTM D4263;
- Rain is forecasted during the minimum curing periods listed under C.5;
- Materials component temperatures below 50°F or above 99°F;
- Concrete age is less than 28 days unless approved by the engineer.
- The deck temperature exceeds 100°F.
- If the gel time is 10 minutes or less at the predicted high air temperature for the day.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a standard chip spreader or equivalent machine that can provide a uniform, consistent coverage of aggregate. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place, but will require additional applications before opening to traffic.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times listed under C.5 or as prescribed by the manufacturer. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay

system before opening the area to traffic. Do not allow traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Prior to applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Prior to opening to traffic, clean expansion joints and joint seals of all debris and polymer. If required by the engineer, a minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

C.4 Application Rates

Apply the polymer overlay in two separate courses in accordance to the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate ^A (GAL/100 SF)	Aggregate ^B (LBS/SY)
1	2.5	10+
2	5.0	14+

^A The minimum total applications rate is 7.5 GAL/100 SF.

^B Application of aggregate shall be of sufficient quantity to completely cover the polymer.

C.5 Minimum Curing Periods

As a minimum, cure the coating as follows:

	Average temperature of deck, polymer and aggregate components in °F							
Course	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-99
1	6 hrs.	5 hrs.	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2	8 hrs.	6.5 hrs.	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

C.6 Repair of Polymer Overlay

Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or other approved methods; shot blast or sand blast and air blast the concrete prior to placement of polymer overlay; and place the polymer overlay according to section C.3.

D Measurement

The department will measure Polymer Overlay in area by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.5100.S	Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials. Concrete Deck Repair will be paid for separately.

509-030 (20130615)

47. 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.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
513.2050.S	Railing Pipe	LF

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

513-005 (20030820)

48. Concrete Staining B-5-381, Item 517.1010.S.01; R-5-110, Item 517.1010.S.02; R-5-111, Item 517.1010.S.03; R-5-112, Item 517.1010.S.04; R-5-113, Item 517.1010.S.05.**A Description**

Furnish and apply a two coat concrete stain to the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

B Materials

B.1 Mortar

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

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

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

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

B.2 Concrete Stain

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

Tri-Sheen Concrete Surfacers, Smooth by TK Products
Tri-Sheen Acrylic by TK Products
TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products
Safe-Cure & Seal EPX by Chem Masters
H + C Shield Plus by Sherwin-Williams

C Construction

C.1 General

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

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

C.2 Preparation of Concrete Surfaces

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

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material and that the surface will accept the coating material according to product requirements. As a minimum, clean the surface using a 3000-psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to produce an acceptable surface texture. Correct any surface problems resulting from the surface preparation methods. Grit blasting of the concrete surface is not allowed.

C.3 Staining Concrete Surfaces

Apply the concrete stain in accordance to the manufacturer's recommendations.

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

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

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

C.4 Test Areas

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

C.5 Surfaces to be Coated.

Apply concrete stain to the surfaces in accordance to the plan.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.01	Concrete Staining B-5-381	SF
517.1010.S.02	Concrete Staining R-5-110	SF
517.1010.S.03	Concrete Staining R-5-111	SF
517.1010.S.04	Concrete Staining R-5-112	SF
517.1010.S.05	Concrete Staining R-5-113	SF

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

517-110 (20100709)

49. Architectural Surface Treatment B-5-381, Item 517.1050.S.01; R-5-110, Item 517.1050.S.02; R-5-111, Item 517.1050.S.03.

A Description

Construct a concrete masonry architectural surface treatment on the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

B Materials

Use form liners that attach easily to the forming system, and do not compress more than 1/4-inch when poured at a rate of 10 vertical feet/hour.

Use a release agent that is compatible with the form liner and coloring materials.

Wall ties shall have set “break-backs” at a minimum of 3/4-inches from the finished concrete surface.

C Construction

C.1 Equipment

Equipment and tools necessary for performing all parts of the work shall be satisfactory as to design, capacity, and mechanical condition for the purposes intended. Repair, improve, replace, or supplement all equipment that is not maintained in full working order, or which is proven inadequate to obtain the results prescribed.

C.2 Form Liner Preparation

Clean the form liner prior to each pour and ensure that it is free of any build-up. Visually inspect each liner for blemishes or tears, and repair if necessary per manufacturer’s recommendations.

Apply form release per manufacturer’s recommendations.

C.3 Form Liner Attachment

Place adjacent liners less than 1/4-inch from each other, attach liner securely to forms in accordance to the manufacturer’s recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

C.4 Surface Finishing

Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

D Measurement

The department will measure Architectural Surface Treatment (Structure) in area by the square foot of architectural surface, 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
517.1050.S.01	Architectural Surface Treatment B-5-381	SF
517.1050.S.02	Architectural Surface Treatment R-5-110	SF
517.1050.S.03	Architectural Surface Treatment R-5-111	SF

Payment is full compensation for producing the proposed architectural surface treatment including: preparing the foundation; finishing and protecting the surface treatment; and for properly disposing of surplus material.

517-150 (20110615)

50. Wall Modular Block Mechanically Stabilized Earth, Item 532.0300.S.

A Description

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

B Materials

B.1 Proprietary Mechanically Stabilized Earth Modular Block Wall Systems

The department specifies approved modular block mechanically stabilized earth wall products on the department's approved product list.

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 Development Section. The name of the companies supplying pre-approved material shall be furnished within 25 days after the award of contract. The department maintains a list of pre-approved systems of retaining walls. 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.

Applications for pre-approval may be submitted at any time. Applications must be prepared in accordance to the requirements of chapter 14 of the department's Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Structures Development 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.

The design/shop plans 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 and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the Wall Modular Block Mechanically Stabilized Earth shall consider the internal stability of the wall mass, including the reinforcement pullout resistance. The design shall be in compliance with the current AASHTO Standard Specifications for Highway Bridges including interim specifications, the standard specifications, and standard engineering design procedures as determined by the department. The walls shall be designed for the heights shown on the plans and 100% of the soil reinforcement shall be connected to the wall facing. The maximum value of the angle of internal friction of the wall backfill material 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.

The embedment to the top of the leveling pad shall be 1 foot 6 inches or as specified in the plan or AASHTO section 5.8.1 minimum, whichever is greater. Potential depth of frost penetration at the wall location shall not be considered in designing the wall for depth of leveling pad. Vertical earth pressure shall be determined using the Meyerhof distribution. A connection factor of safety of 1.5 at 0.75 inch deformation is required. A geosynthetic waterproof membrane is not required to cover the reinforced mass.

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 6 feet. The soil reinforcement shall extend 3 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be two times the block depth (front face to back face) or 32 inches, whichever is less. The first (bottom) layer of reinforcement shall be placed no further than 12 inches above the top of the leveling pad, but at least one block height above the leveling pad. The last (top) layer of soil reinforcement shall be no further than 24 inches below the top of the uppermost block.

Submit the following to the engineer for review: complete design calculations, explanatory notes, specifications, and detailed plans and shop drawings for the proposed wall system. Submit them no later than 21 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. The design calculations and notes shall clearly indicate the factor of safety against pullout and the design soil pressure beneath the wall footing and retained earth mass. Four copies of shop drawings and two copies of the design calculations and supporting materials shall be submitted.

B.3 Wall System Components

Materials furnished under this contract shall conform to the requirements hereinafter provided.

B.3.1 Leveling Pad

For all walls over 5 feet tall measured from the top of the leveling pad to the top of the wall, provide a wall leveling pad that consists of poured concrete masonry, 6 inches deep by 12 inch (minimum) wide Grade A conforming to standard spec 501 as modified in standard spec 716. Provide QMP for class II concrete as specified in standard spec 716. The leveling pad shall be as wide as the proposed blocks or a minimum of 12 inches whichever is greater. The bottom row of blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad. If any portion of the wall is over 5 feet tall, a concrete leveling pad shall be used for the entire length of the wall. All walls with a structure number assigned (such as R-XX-XXX) shall be built using the concrete leveling pad given above, regardless of wall height. The leveling pad shall step to follow the general slope of the ground line. The leveling pads steps shall keep the bottom of the wall within one block thickness of the minimum embedment, i.e., a minimum embedment plus an additional embedment of up to one block's thickness. Additional embedment may be detailed, but will not be measured for payment.

For walls that are less than or equal to 5 feet in height and do not have a wall number assigned to them, a compacted 1 foot deep by 2 foot wide leveling pad made from base aggregate dense 1¼-inch in conformance with standard spec 305 may be used.

B.3.2 Wall Facing

Wall facing units shall consist of precast modular concrete blocks. All units shall incorporate a mechanism or devices that will develop a mechanical connection between vertical block layers. Units that are cracked, chipped, or have other imperfections in accordance to ASTM C1372 or excessive efflorescence shall not be used within the wall. A single block type and style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan or chosen by the engineer.

The top course of facing units shall be a solid precast concrete unit designed to be compatible with the remainder of the wall. The finishing course shall be bonded to the underlying facing units with a durable, high strength, flexible adhesive compound compatible with the block material. A formed cast-in-place concrete cap may also be used to finish the wall. A cap of this type shall be designed to have texture, color, and appearance that complement the remainder of the wall. The vertical dimension of the cap shall not be less than 3½ inches. Expansion joints shall be placed in the cap to correspond with each 24 inch change in vertical wall height or at a maximum spacing of 10 feet. Concrete for all cast-in-place caps shall be Grade A and shall conform to the requirements of standard spec 501.

Block dimensions may vary no more than $\pm 1/8$ inch from the standard values published by the manufacturer in accordance to ASTM C1372. Blocks must have a minimum depth (front face to back face) of 8 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. Also the minimum allowed thickness of any other portions of the block is 2 inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

Cementitious materials and aggregates for modular blocks shall conform to the requirements of ASTM C1372 section 4.1 and 4.2. Modular blocks shall meet the following requirements.

Test	Method	Requirement
Compressive Strength (psi)	ASTM C140	5000 min.
Water Absorption (%)	ASTM C140	6 max.
Freeze-Thaw Loss (%)	ASTM C1262 ^[1]	
40 cycles, 5 of 5 samples		1.0 max. ^[2]
50 cycles, 4 of 5 samples		1.5 max. ^[2]

^[1] Test shall be run using a 3% saline solution.

^[2] Test results that meet either of the listed requirements for Freeze-Thaw Loss are acceptable.

All blocks shall be certified as to strength, absorption, and freeze-thaw requirements unless, due to contract changes after letting, certified blocks are not available when required. At the time of delivery of certified blocks, furnish the engineer a certified test report from a department-approved independent testing laboratory for each lot of modular blocks. The certified test report shall clearly identify the firm conducting the sampling and testing, the type of block, the date sampled, name of the person who conducted the sampling, the represented lot, the number of blocks in the lot, and the specific test results for each of the stated requirements of this specification. A lot shall not exceed 5000 blocks. The certified test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification information. Block lots that do not meet the requirements of this specification or blocks without supporting certified test reports will be rejected and shall be removed from the project at no expense to the department.

A department-approved independent testing laboratory shall control and conduct all modular block sampling and testing for certification. Prior to sampling, the manufacturer's representative shall identify all pallets of modular blocks contained in each lot. All pallets of blocks within the lot shall be numbered and marked to facilitate random sample selection.

The representative of the independent testing laboratory shall identify five pallets of blocks by random numbers and shall then select one block from each of these pallets. Solid blocks used as a finishing or top course shall not be selected. The selected blocks shall remain under the control of the person who conducted the sampling until shipped or delivered to the testing laboratory. All pallets of blocks within a lot shall be strapped or wrapped to secure the contents and tagged or marked for identification. The engineer will reject any pallet of blocks delivered to the project without intact security measures. At no expense to the department, the contractor shall remove all rejected blocks from the project.

The department may conduct testing of certified or non-certified modular blocks lots delivered to the project. The department will not do freeze-thaw testing on blocks less than 45 days old. If a random sample of five blocks of any lot tested by the department fails to meet any of the requirements of this specification (nonconforming), the contractor shall remove from the project site all blocks from the failed lot not installed in the finished work at no cost to the department, unless the engineer allow otherwise. Nonconforming blocks installed in the finished work will be considered approved by the department as stated in standard spec 106.5(2) and any adjustment to the contract price will not exceed the price of the blocks charged by the supplier.

B.3.3 Geogrids

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester.

Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant.

The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall designer shall supply the allowable Tension Reinforcement Load (T_A) used in the design for each reinforcement layer. The wall system composed of geogrid and modular blocks shall be from a preapproved supplier. The current list of preapproved geogrids and their corresponding modular blocks is maintained by the department's Structures Development Section and may be obtained by calling (608) 266-8494. Only geogrid and modular blocks preapproved before contract letting will be allowed in the construction of the wall.

The value of T_A for a specific geogrid shall be the lowest value as determined by the following two methods for each layer used.

1. The Ultimate Tensile Strength (T_{ult}) divided by the factors RF_{ID} , RF_{CR} , RF_D and FS .

Hence,

$$T_A = \frac{T_{ult}}{RF_{ID} \times RF_{CR} \times RF_D \times FS}$$

where:

- T_{ult} = is the ultimate tensile strength of the reinforcement determined from wide width tensile tests (ASTM D4595) for geogrids, or rib tensile test (GRI:GG1), but at a strain rate of 10% per minute.
- RF_{ID} = strength reduction factor to account for installation damage to the reinforcement. In no case shall RF_{ID} be less than 1.1.
- RF_{CR} = strength reduction factor to prevent long-term creep rupture of the reinforcement. In no case shall RF_{CR} be less than 1.2.
- RF_D = strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation. In no case shall RF_D be less than 1.1.
- FS = a global safety factor which accounts for uncertainties in structure geometry, fill properties, externally applied loads, overstress due to load nonuniformities, and uncertainties in long-term reinforcement strength shall be 1.5.

Values for RF_{ID} , RF_{CR} , and RF_D shall be determined from product specific test results.

Guidelines for how to determine RF_{ID} , RF_{CR} , and RF_D from product specific data are provided in FHWA Publication No. FHWA SA-96-071 “Mechanically Stabilized Earth Walls and Reinforced Soil Slopes Design and Construction Guidelines” Appendix B, and in FHWA Publication No. FHWA SA-96-072 “Corrosion/Degradation of Soil Reinforcements for Mechanically Stabilized Earth Walls and Reinforced Soil Slopes.”

- 2 The geogrid connection load (T_B) divided by the factor $FS = 1.5$. Hence,

$$T_A = \frac{T_B}{FS}$$

The Geogrid Connection Load (T_B) is defined as the maximum tension load that may be developed in a geogrid reinforcement layer that will result in no more than

0.75 inches of deformation. This value shall be determined from tests conducted on the same facing blocks and grids as proposed for the wall and shall cover a range of overburden pressures comparable to those anticipated in the proposed wall. The value of T_B for any specific layer shall be determined for the overburden pressure applied to that specific layer. The test shall be conducted on grid samples at least 8 inches wide and at a rate of elongation not exceeding 0.05 inches per minute. The geogrid shall remain normal to the block face during loading. The contractor shall provide to the engineer all load test data used to determine the value of T_B .

Submit the following items for the review and acceptance of the engineer.

1. The Allowable Reinforcement Tension Load (T_A) for the geogrid to be supplied.
2. The values of T_{ult} , RF_{ID} , RF_{CR} , RF_D , and T_B used to determine T_A .

Work on the wall shall not begin until the engineer accepts these submittals.

B.3.4 Galvanized Metal Reinforcement

In lieu of polymeric geogrid earth reinforcement, galvanized metal reinforcement may be used. Design and materials shall be in accordance to section 5.8.6.1.1 of the current AASHTO Specifications.

B.3.5 Connectors

Pins, rods, clips, or other devices used to develop mechanical interlock between facing unit block layers shall be manufactured from corrosion resistant materials. Furnish documentation that establishes and substantiates the design life of such devices.

B.3.6 Backfill Materials

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate No. 1 as given in standard spec 501.2.5.4.4. All backfill placed within a zone from the base of the leveling pad to the top of the final layer of wall facing units and within 1 foot behind the back face of the wall shall be Wall Backfill, Type A. This includes all material used to fill openings in the wall facing units.

Wall Backfill, Type B, shall comply with the requirements for Grade 1 Granular Backfill as contained in standard spec 209.2.2. All backfill placed in a zone extending horizontally from 1 foot behind the back face of the wall to 1 foot beyond the end of the reinforcement and extending vertically from the base of the leveling pad to the top of the final layer of all facing units shall be Wall Backfill, Type B.

All backfill within the reinforced zone shall meet the following pH and Angle of Internal Friction requirements.

Test	Method	Value
pH	AASHTO T-289	4.5 – 10.0
Sulfate content ¹	AASHTO T-290	200 ppm max.
Chloride content ¹	AASHTO T-291	100 ppm max.
Electrical Resistivity ¹	AASHTO T-288	3000 ohm/cm min.
Angle of Internal Friction	AASHTO T-236	30 degrees min.

^[1] Backfill used on walls with metallic reinforcement shall also meet this requirement.

Prior to placement of the backfill, obtain and furnish to the engineer certified report of test results that the backfill material complies with the requirements of this specification. Tests will be performed by a certified independent laboratory. When backfill characteristics and/or sources change, a certified report of tests will be provided for the new backfill material.

All other backfill materials required to finish the wall and restore the ground surface may be select material available on the project that meets the engineer's approval.

C Construction

C.1 General

Place the wall facing units in accordance to the manufacturer's instructions and to the lines, elevations, batter, and tolerances as shown on the plans. Center the initial layer of facing units on the leveling pad; then level them and properly align them. Fill formed voids or openings in the facing units with wall backfill, Type A. Remove all debris on the top of each layer of facing units, before placing the next layer of facing units.

Install all pins, rods, clips, or other devices used to develop mechanical interlock between facing unit layers in accordance to the manufacturer's directions.

All excavation for the Wall Modular Block Mechanically Stabilized Earth shall conform to standard spec 206. 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 front face of the wall.

C.2 Backfill

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth. Backfilling shall closely follow erection of each course of wall facing units. Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Compact wall backfill Type B as specified in standard spec 207.3.6. For walls with a maximum height of any portion greater than 5 feet, compact Wall Backfill Type B to 95.0% of maximum density as determined by AASHTO T-99, Method C. Perform compaction testing on the backfill. When performing nuclear testing, use a nuclear gauge from the department's approved list, ensure that the operator is a HTCP certified Nuclear

Density Technician I, and conform to CMM 8.15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 2-foot layer per 200 feet of wall, or major portion thereof. A minimum of one test for every 2-foot layer is required. Test sites shall be selected using ASTM Method D3665. Deliver documentation of all compaction testing results to the engineer at the time of testing. The department may perform quality control compaction tests on walls less than 5 feet in height to ensure compliance with standard spec 207.3.6.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back face of modular blocks. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing units.

C.3 Soil Reinforcement

Place soil reinforcement at the positions and to the lengths as indicated on the accepted shop drawings. Take care that backfill placement over the positioned soil reinforcement elements does not cause damage or misalignment of these elements. Correct any such damage or misalignment as directed by the engineer. Do not operate wheeled or tracked equipment directly on the soil reinforcement. A minimum cover of 6 inches is required before such operation is allowed.

C.4 Geogrid Layers

Place and anchor geogrid material between wall unit layers in the same manner as used to determine the Geogrid Connection Load (T_B). Place the grid material so that the machine direction of the grid is perpendicular to the wall face. Each grid layer shall be continuous throughout the lengths indicated on the plans. Join grid strips with straps, rings, hooks or other mechanical devices to prevent movement during backfilling operations. Prior to placing backfill on the grid, pull the grids taut and hold in position with pins, stakes or other methods approved by the engineer.

C.5 Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

C.6 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. The allowable soil bearing capacity is given on the plan. After completing the excavation of the entire reinforced zone, the department's Regional Soils Engineer will inspect the site and determine if the foundation is adequate for the intended loads. Allow the Regional Soils Engineer two working days to perform the inspection.

D Measurement

The department will measure Wall Modular Block Mechanically Stabilized Earth in area by the square foot of face on a vertical plane between the top of the leveling pad and a line indicating the top of wall including wall cap or copings as required and shown on the plans. Unless ordered by the engineer, 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
532.0300.S	Wall Modular Block Mechanically Stabilized Earth	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of surplus materials; supplying all necessary wall components to produce a functional system including cap and copings; constructing the retaining system; providing backfill, backfilling and compacting; and performing compaction testing. Parapets, railings, and other items above the wall cap or coping will be paid for 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.
532-031 (20120615)

51. Driven Piles Using Pile Dynamic Analyzer.

Where indicated in the structure plans, replace standard spec. 550.3.6 with the following:

550.3.6 Driving Resistance

- (1) Drive piles to the depths necessary to obtain the required driving resistance per the driving resistance determination method called for in the plans.
- (2) Develop driving resistance criteria from Pile Dynamic Analyzer (PDA) testing performed on the designated piles at each substructure unit as shown on the plans. The driving resistance criteria will be given as blows per foot with hammer stroke and minimum penetration of the pile or as directed by the engineer.

The PDA test piles at each substructure unit are designated on the plans and will be monitored using a PDA. Pile installation for these test piles will be controlled by the PDA testing per the Pile Dynamic Analyzer (PDA) Testing and Restrike Special Provision within this contract.

For the PDA driving resistance determination method, pile restrikes will be required per the PDA Testing and Restrike Special Provision, or as directed by the engineer. Accommodate a time delay in the pile driving sequence as defined in the PDA Testing Special Provision to allow time to develop the production pile driving criteria.

(3) If the required driving resistance is not met at the minimum tip elevation, driving shall continue until it is achieved. If the required driving resistance is achieved above the minimum tip elevation, driving shall continue until both the minimum tip elevation and required driving resistance criteria are met. If practical pile refusal is encountered prior to the minimum tip elevation, the engineer will determine if driving can be halted.

Where indicated in the structure plans, delete standard spec. 550.3.7.

52. Manhole, Inlet, and Catch Basin Adjusting Rings.

Supplement standard spec 611.3 as follows:

When using concrete adjustment rings:

The height of the grade ring shall equal (to within an inch and not to exceed) the height of the adjustment to minimize the number of joints in the chimney section. Multiple grade rings will not be allowed where one will suffice. Concrete grade rings less than 2-inches in thickness are not allowed. Concrete rings shall be of a size that closely matches the inside and outside dimensions of the structures.

When using rubber adjustment rings:

Rubber grade rings shall be in a flat and/or tapered configuration of a size to closely match the inside and outside dimensions of circular or rectangular structures, installed individually or in combination not to exceed 3-inches in height. If more than 3-inches of adjustment is necessary, use one concrete ring 3-inches or more in height with rubber rings on top of the concrete ring. If multiple rubber adjustment rings are necessary, a maximum of two adjustment rings can be used. Rubber grade rings shall be tapered to match the cross slope and profile of the roadway.

(NER13-0611)

53. Cover Plates Temporary, Item 611.8120.S.

A Description

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

B Materials

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

C (Vacant)**D Measurement**

The department will measure Cover Plates Temporary as units, acceptably completed in place.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	Each

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

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

611-006 (20030820)

54. 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 NUMBER	DESCRIPTION	UNIT
611.9800.S	Pipe Grates	Each

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to pipes.

611-010 (20030820)

55. Fence Safety, Item 616.0700.S.**A Description**

This special provision describes furnishing and installing a plastic fence at locations shown on the plans and as hereinafter provided.

B Materials

Furnish notched conventional metal "T" or "U" shaped fence posts.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Service Temperature:	-60° F to 200° (ASTM D648)
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction

Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement

The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.

616-030 (20070510)

56. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of \$500 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.

632-005 (20070510)

57. Furnishing and Planting Plant Materials.

A Description

Perform the work under this item in accordance to the plans, standard spec 632 and as hereinafter provided.

B Materials

B.1 Plant Materials

Modify standard spec 632.2.2 to include the following:

All plants shall be grown within the states of Wisconsin, Minnesota, Michigan, or parts of northern Illinois, Indiana or Ohio located within Zone 5 of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Miscellaneous Publication No. 1475, issued January, 1990, unless otherwise approved by the engineer.

B.2 Plant Approval

Modify standard spec 632.2.2.8 as follows:

Furnish a list of sources for plants in accordance to standard spec 632.2.2.8 before planting begins for fall-planted plants and before March 1 for spring-planted plants. All sources will be subject to verification by the engineer.

C Construction

C.1 Planting

Revise standard spec 632.3.7, paragraph 3, sentence 4 as follows:

Remove the burlap and other wrapping materials including, but not limited to, twine, wire baskets, and plastic ribbon, from the entire root ball of B&B plants.

C.2 Excavation of Planting Holes

Revise standard spec 632.3.4 as follows:

The minimum horizontal measurement of the plant hole shall be no less than 24 inches (600mm) greater than the diameter of the ball, container, or root mass for the full depth of the planting hole.

Ensure that the bottom of the hole is adequately compacted to guard against settling. Tamp or water as necessary to create a condition by which plants will not settle in the planting beds. The bottom of the root ball shall be in direct contact with the bottom of the hole.

C.3 Plant Establishment Period

Replace standard spec 632.3.18.1.1 with the following:

A plant establishment period of 2 years shall follow the completion of planting.
(NER11-0523)

58. Wood and Tubular Steel Sign Posts.

Replace standard spec 634.3.1(1) with the following:

Set and laterally position the wood posts for supporting roadside signs as the plans show, or as the engineer directs. For installations in concrete or asphalt, use 18-inch inside diameter PVC pipe box outs. Position the PVC pipe so the top of the pipe is flush with the adjacent concrete or asphalt. Install the post in the center of the box out.

Replace standard spec 634.3.2(2) with the following:

For installations in concrete or asphalt, use 18-inch inside diameter PVC pipe box outs. Position the PVC pipe so the top of the pipe is flush with the adjacent concrete or asphalt. Install the post in the center of the box out.
(NER11-0207)

59. Ground Water Monitoring Well.

Others have constructed a groundwater monitoring well at:

Station 301'MNB'+45, 64 feet RT
Station 301'MNB'+83, 10 feet LT
Station 302'EB'+54, 79 feet LT
Station 302'EB'+94, 54 feet RT
Station 109'EB'+53, 55 feet RT
Station 110'EB'+12, 48 feet RT
Station 110'EB'+39, 39 feet LT

This well is located within the construction area of the proposed containment cell. Exercise care and do not disturb or damage the well. Any cost of repair or replacement of a well disturbed or damaged by the contractor will be deducted from compensation due, or which may become due, the contractor under the contract.
640-001 (20050901)

60. Traffic Control.

Perform this work in accordance to the requirements of standard spec 643, and as shown on the plans or as approved by the engineer, except as hereinafter modified.

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control detail as shown on the plans. Submit this plan 10 days prior to the preconstruction conference.

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore lights, signs, or other traffic control devices that are damaged or disturbed. The cost to maintain and restore the above items shall be considered incidental to the item as bid and no additional payment will be made therefore.

Supply the name and telephone number of a local contact person for traffic control repair before starting work.

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

The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

Obtain prior approval from the engineer for the location of egress and ingress for construction vehicles to prosecute the work.

Cover existing signs which conflict with traffic control as directed by the engineer.

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

- a. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way without approval of the engineer.
- b. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.

- c. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1000 feet. Activate the beam when merging into or exiting a live traffic lane.

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

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency,

61. Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch, Item 646.0843.S.

A Description

This special provision describes furnishing, grooving and installing preformed wet reflective pavement marking contrast tape for grooved applications as shown on the plans, according to standard spec 646, and as hereinafter provided.

B Materials

Furnish wet reflective pavement marking contrast tape and adhesive material, per manufacturer's recommendation if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking contrast tape.

Plane the grooved lines according to details in the plan and per manufacturer's recommendations. Use grooving equipment with a free-floating, independent cutting head. Plane a minimum number of passes to create a grooved surface per manufacturer's recommendations.

C.2 Groove Depth

Cut the groove to a depth of 120 mils $\pm$ 10 mils from the pavement surface or, if tined, from the high point of the tined surface. To measure the depth, the contractor may use a depth plate placed in the groove and a straightedge placed across the plate and groove, or the contractor may use a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and the pavement marking tape. Use a high-pressure air blower with at least 185 ft³/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive:

- 1) For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:
 - Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations.
 - Apply P-50 during October 1 to April 30, both dates inclusive. –
- 2) For the remainder counties:
 - Apply either adhesive.

Refer to the manufacturer's instructions for determining when the surface preparation adhesive is set.

Tamp the wet reflective pavement marking contrast tape with a tamper cart roller, with a minimum of a 200-lb load, cut to fit the groove. Tamp a minimum of three complete cycles (6 passes) with grooved modified tamper roller cart.

D Measurement

The department will measure Pavement Marking Grooved Wet Reflective Contrast Tape (Width) for grooved applications in length by the linear foot of tape placed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; and for removing temporary pavement marking, if necessary.
646-022 (20120615)

62. General Requirements for Electrical Work.

Replace standard spec 651.2 (2) with the following:

The department specifies approved materials and construction products for electrical work at the following web address:

<http://www.dot.wisconsin.gov/business/engrserv/docs/ap3/electrical.pdf>

63. Bridge Lighting Systems, General.

A General

Append standard specs 651, 652, 653, 654, 655, 656, 657 and 659 as follows.

B Splices

Lighting units:

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

Pull boxes:

No splices are allowed in pull boxes.

C Branch Circuit Tagouts

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

D Threaded Fasteners

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

E Circuit Identification

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

Each and every accessible location of underground cable in junction boxes, pull boxes, control cabinets and pole bases (handholes) shall have a permanent weatherproof white nylon tag with TYPED ¼" black lettering identifying the cabinet and conductor circuit number - i.e. W-1.

F Utility Coordination

Coordinate with WPS the installation/connection of the new electrical service to the new lighting control cabinet pedestal.

64. Electrical Service.

A Description

Work under this item shall be in accordance to standard spec 656 with the following addition.

B (Vacant)

C Construction

Under this item, the department will perform preliminary coordination with the utility to arrange for installation of the Service Lateral(s). The Utility will provide the department with a utility routing number for each lateral.

The contractor is responsible to arrange for the actual installation of the Service Lateral with the utility. The contractor is also responsible for payment of the Service Lateral installation in accordance to standard spec 656. The contractor shall contact the department at (920) 492-5628 to obtain the utility routing number established during preliminary utility coordination.

65. Electrical Service Meter Breaker Pedestal, Bridge Lighting Cabinet W, Item 656.0200.01.

Supplement standard spec 656 with the following:

The municipality (Village of Wrightstown) will apply for utility service and will pay for all required utility extension fees.

Furnish the meter breaker pedestal with a manufacturer applied black finish. After purchase paint finishes will not be accepted.

This modifies a standard item.

66. Anchor Assemblies Light Poles on Structures, Item 657.6005.S.

A Description

This special provision describes furnishing and installing anchor bolt assemblies for light poles as shown on the plans, and as hereinafter provided.

B Materials

Furnish anchors of the size and spacing as given on the plans, and that conform to ASTM A449 or AASHTO M314 GR 55. The upper 8 inches of the bolts, nuts, and washers shall be hot-dipped galvanized in accordance to ASTM A153, Class C. Provide enlarged threads on nuts for proper fit after galvanizing.

C Construction

Provide two nuts and two washers per anchor bolt, and install per light standard manufacturer's recommendations.

D Measurement

The department will measure Anchor Assemblies Light Poles on Structures as a unit for each individual anchor bolt assembly 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
657.6005.S	Anchor Assemblies Light Poles on Structures	Each

Payment is full compensation for furnishing and installing the anchorages.
657-060 (20100709)

67. Crack and Damage Survey, Item 999.1500.S.**A Description**

This special provision describes conducting a crack and damage survey of the residences and business located at

Parcel	Owner	Street Address
VW-351	BruceandBarbara Lamers	100 High St
VW-350	Bridgeport Gas Station Llc - Mark Joosten	525 Main St
VW-380	John Verhasselt	531 Hickory St
VW-381	Thomas and Susan Schreurs	605 Main St
VW-379-1	Bmg Development Llc	615 Main St
VW-379	John M Nettekoven	229 Broadway St
VW-379-2	Richard W Carroll Jr	219 Broadway St
VW-379-3	Ronald R and Cheryl K Pennenberg	225-227 Broadway St
VW-380-1	Verhasselt John J Revocable Trust	535 Hickory St
VW-359	Richard G and Jennifer J Vaneperen	315 Broadway St
VW-362	Michael and Sara Swietlicki	622 Main St
VW-155	Dale and Nancy Demske	104 High St
VW-156	Douglas M and Sally J Scheel	108 High St
VW-158	Douglas M and Sally J Scheel	112 High St
VW-157	Christopher P Laws Dds	118 High St
VW-148	Eugene J Manders and Barbara L Fuss	210 High St
VW-151	Olejniczak Family Rentals Llc	222 High St
VW-150	Olejniczak Family Rentals Llc	100 Block High St
VW-134	William M and Carol T Fritsch	105 High St
VW-137	Nies Properties Llc	109 High St
VW-136	Horkman Restaurants Llc	119 High St
VW-141	Wrightstown Tavern Llc	531 Washington St
VW-142	Gary A Vande Voort	221 High St
VW-142-1	Robert E and Bonita E Vandehey	229 High St
VW-144	Wisconsin Telephone Co	231 High St
VW-63	Daniel Egan Jr	246 High St

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

performed after the construction activities, shall also include a visual inspection, photographs, and written report describing any change in the building's condition.

B (Vacant)

C Construction

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

The photographs shall be taken by a professional photographer capable of producing sharp, grain free, high-contrast colored pictures with good shadow details. The photographs shall be 3½ inch by 5 inch color prints, glossy, and mounted in protective storage pages with clear slip-in pockets and clear background. Each sheet shall hold four prints. The back of each photograph shall contain the following information:

ID _____
Building Location _____
View looking _____
Date _____
Photographer _____

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

After the construction activities are complete, conduct another survey in the same manner, take photographs, and submit another written report to the engineer.

In lieu of photographs, a professional videographer may be hired to use a video camera capable of producing a video with the clarity required to perform this work.

D Measurement

The department will measure Crack and Damage Survey as single complete unit of work.

E Payment

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

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

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

999-010 (20130615)

68. Subsoiling, Item SPV.0005.01.

A Description

Furnish equipment and perform subsoiling within the wetland restoration area as directed by the engineer.

B Equipment

Furnish commercially available, multi-shanked, parallelogram implement attached to track-type equipment to create channels to a minimum depth of 16 inches. The equipment shall be capable of exerting a penetration force necessary for the site. No disc cultivators chisel plows, or spring-loaded equipment will be allowed.

C Construction

Perform subsoiling prior to placing topsoil. Subsoiling shall be performed parallel to the pavement edge. The channels shall be spaced a minimum of 24-inches to a maximum of 36-inches apart, depending on equipment and site conditions. The channel depth shall be to a depth of between 16-20 inches. Work shall be performed on slopes 1 vertical to 3 horizontal or flatter. Work shall be at right angles to the direction of surface drainage, whenever practical. Exceptions to subsoiling include over utility lines within 30-inches of the surface, where trenching or drainage lines are installed, where compaction is by design (abutments, footings, or inslopes) and inaccessible slopes, as approved by the engineer. In cases where exceptions occur, observe a minimum setback, as directed by the engineer.

D Measurement

The department will measure Subsoiling by the acre in accordance to standard spec 109.1.1.2.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0005.01	Subsoiling	Acre

Payment is full compensation for furnishing all specified equipment and for performing work.

69. Coloring Concrete Buff, Item SPV.0035.01.

A Description

This special provision describes coloring concrete used to construct work under other contract bid items as well as any special materials and special construction techniques associated with using colored concrete.

B Materials

Provide materials in accordance to standard spec 405.2.

Supplement standard spec 405.2.1(1) with the following:

For Buff: use non-fading synthetic iron oxides at a loading of 6 percent or more by weight of total cementitious material in the mix. Match the concrete color in reasonably close conformance with Federal Standard 595 Color Server, FE Color 30450.

C Construction

Construct in accordance to standard spec 405.3.

D Measurement

The department will measure Coloring Concrete Buff by the cubic yard, acceptably incorporated into work done under other contract bid items, including material incorporated into one sample panel or one test slab that achieves a color the engineer accepts as required under standard spec 405.3.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Coloring Concrete Buff	CY

Payment is full compensation for developing mix designs and providing sample panels or test slabs; for furnishing pigments; for special construction procedures required under standard spec 405.3; for removing test slabs, restoring the site, and disposing of waste material.

70. Aggregate Filter, Item SPV.0035.02.

A Description

This special provision describes furnishing and installing aggregate filters at locations designated on the plans or as directed by the engineer, and in accordance to plan details and as hereinafter provided.

B Materials

Fill material shall be clean, sound, hard, durable coarse aggregate meeting the approval of the engineer and conforming to the size and gradation requirements for fine aggregate as specified in standard spec 501.2.5.3.4 and for Size No. 1 coarse aggregate as specified in standard spec 501.2.5.4.4.

C (Vacant)

D (Vacant)

The department will measure Aggregate Filter by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.02	Aggregate Filter	CY

Payment for Aggregate Filter is full compensation for preparing the foundation; and for stockpiling, placing, shaping, compacting, and maintaining the aggregate filter.

71. Temporary Crosswalk Access, Item SPV.0045.01.

A Description

Maintain accessible crosswalks crossing the construction zone on existing pavement, new pavement, or temporary surface material. Provide one accessible crosswalk across Broadway Street at the intersection with Main Street, across Fair Street at the intersection with High Street, across Turner at the intersection with High Street, across Mueller at the intersection with High Street, and across Cedar Street with the intersection of Main Street.

B Materials

Furnish a hard temporary surface material consisting of asphaltic surface temporary in accordance to standard spec 465.2, any grade of concrete in accordance to standard spec 602.2, skid resistant steel plating, or alternative material as proved by the engineer.

Gravel or base course material is not acceptable.

Furnish safety fence in accordance to the item "Fence Safety".

Furnish 4-inch diameter polyvinyl chloride drainage pipe conforming to AASHTO M278.

Furnish a protective layer for use in protecting the existing curb and gutter and existing pavement from asphaltic surface temporary in order to allow easy removal of asphaltic surface. Obtain approval from the engineer for the protective layer material.

C Construction

C.1 Crosswalk

Install, maintain, move, and remove temporary surface material in Temporary Crosswalk Access locations as shown on the plan and as directed by the engineer. Level and compact the surface prior to placing temporary surface material. The temporary crosswalk shall have a minimum clear width of 4 feet; be located outside the immediate work area, as approved by the engineer; and meet the requirements of the current Americans with Disabilities Act Accessibility Guidelines (ADAAG). Install safety fence along both sides of the temporary crosswalk. Provide a gap in the safety fence as necessary to provide access for construction and public vehicles and across the temporary crosswalk. The maximum width of the gap shall be 15 feet. Reconstruct Temporary Crosswalk Access when disturbed by construction operations or utility trenches.

C.2 Temporary Curb Ramp

Place 4-inch PVC drainage pipe in the flow line of the curb and gutter to maintain storm water drainage. Keep drainage pipe free of any debris that would inhibit drainage through the pipe.

Place a protective layer between the existing curb and gutter or existing pavement and the asphaltic surface or concrete for temporary curb ramp.

For the portion of the temporary curb ramp in the terrace area, form the foundation by excavating at least 3-inches. Tamp or compact the foundation to ensure stability.

Place asphaltic surface temporary in accordance to standard spec 465.3.1 or place concrete in accordance to standard spec 602.3.2.3, and as shown in the plan.

Maintain temporary curb ramps until permanent curb ramps and crosswalks are in place and open to pedestrian traffic as directed by the engineer.

Remove temporary curb ramps once permanent curb ramps and crosswalks are open and operational and restore the site.

D Measurement

The department will measure Temporary Crosswalk Access by the day acceptably completed. The measured quantity will equal the number of calendar days a temporary crosswalk through the work area is open to pedestrian traffic. A temporary crosswalk is defined as an accessible crossing of a single leg of an intersection with temporary curb ramps meeting ADA requirements. Each day that the crosswalk is out of service for more than 2 hours will result in one day being deducted from the quantity measured for payment. Each day that the crosswalk is out of service for more than 2 hours will result in one day being deducted from the quantity measured for payment. Once the finished pavement and finished curb ramps and adjacent sidewalk are installed, the crossing will no longer 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.0045.01	Temporary Crosswalk Access	DAY

Payment is full compensation for furnishing, loading, and hauling materials; for preparing the foundation; for furnishing, placing, maintaining, and removing temporary surface material and underlying base aggregate; for reconstructing or relaying the temporary surface material; and for furnishing and installing, and maintaining safety fence.

72. Frost Proof Yard Hydrant, 6-Foot, Item SPV.0060.01.

A Description

This special provision describes furnishing and installing a Frost Proof Hydrant in accordance to the details shown on the plans and as hereinafter provided.

Connect the frost proof hydrant with a service tap at the location specified in the plans and in accordance to the standard specifications for Sewer and Water Construction in Wisconsin.

The frost proof hydrant assembly shall consist of a FNPT inlet, galvanized casing, cast iron head, lockable cast iron handle, NPT drain hole, nitrile plunger and hose outlet.

B Materials

Provide a frost proof yard hydrant with a 6-foot bury depth from the water service shut off valve. Materials include a complete unit consisting of a cast iron head and lockable handle, nitrile plunger, NPT drain hole, FNPT inlet, hose outlet, galvanized casing and any additional hardware to install the frost proof hydrant per manufacturer's recommendation.

Female Inlet: 3/4" NPT

Casing: 1" Galvanized Steel Pipe

Operating Rod: 3/8" Galvanized Steel Pipe

Drain Hole: Tapped - 1/8" N.P.T.

Removable Nozzle: 3/4" Brass Male Hose Nozzle

Maximum Working Pressure: 125 p.s.i.

Maximum Temperature: 120°F

The frost proof hydrant shall include an automatic drain feature, a locking mechanism and a flow adjustment mechanism.

C Construction

Submit product specifications and hydrant shop drawings for review by the engineer before proceeding with the field work.

Install all components of the hydrant in accordance to all state and local plumbing codes and as required per manufacturer's recommendations. Install the hydrant with the outlet nozzle placed 27-1/2 inches above the finished ground surface.

Test the hydrant prior to the placement of the hardwood mulch to allow a visual inspection of the system. Provide all manufacturer's installations guides, warranty information and instruction manuals to the engineer.

D Measurement

The department will measure Frost Proof Yard Hydrant, 6-Foot 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 NO.	DESCRIPTION	UNIT
SPV.0060.01	Frost Proof Yard Hydrant, 6-Foot	Each

Payment is full compensation for furnishing and installing the complete hydrant system including inlet, casing, hydrant head and handle, operating rod, outlet nozzle and all hardware required to provide a complete frost proof hydrant; for testing the system.

73. Removing Cover Plate, Item SPV.0060.02.**A Description**

Remove and dispose of a steel plate that was used to cover and support backfill material and traffic loading at inlets as shown on the plans.

B (Vacant)**C Construction**

This work shall be in accordance to the pertinent provisions of standard spec 611, as shown on the plans, and as hereinafter provided. Clean out all soil, debris, other accumulated matter, and materials deposited or lodged due to the contractor's operations.

D Measurement

The department will measure Removing Cover Plate by the individual cover plate, completely removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Removing Cover Plate	Each

Payment is full compensation for removing the cover plate, cleaning out all soil, debris, other accumulated matter in structure.

74. Adjusting Manhole Covers with Rubber Rings, Item SPV.0060.03.**A Description**

Provide and set rubber grade rings for manhole covers to final grade, along with adjusting the castings to final grade, in accordance to the applicable provisions of standard spec 611 and as hereinafter provided.

B Materials

Furnish materials in accordance to the applicable provisions of standard spec 611. All rubber grade rings shall have a flat and/or tapered configuration of a size that closely matches the inside and outside dimensions of circular or rectangular structures.

C Construction

Adjust manhole covers in accordance to the applicable provisions of standard spec 611.

Install rubber grade rings individually or in combination not to exceed 4 inches in height and locate at the casting. If more than 4 inches of adjustment is necessary, use one concrete ring, 4 inches or more in height, with rubber rings on top of the concrete ring. Final casting placement shall conform to the finished crown of the road. Where a 4-inch concrete ring is needed, do not shim or mortar the concrete ring in order to meet the desired elevation and/or crown and slope of the proposed roadway. Taper the rubber grade rings to match the slope of the crown and profile of the road. Ensure that the concrete and metal surfaces to receive sealing compound are clean, dry and free of grease or oils. Bond the rubber grade rings to adjacent surfaces by laying a continuous bead 5/16-inch thick cold-applied joint sealant conforming to ASTM-D-1850 Polyurethane Door, Window and Siding Sealant or PL Premium Polyurethane Concrete and Masonry Sealant or equivalent, on the top surface of the concrete of the bottom surface of the grade ring on a diameter 1-inch smaller than the outside diameter of the rubber grade ring. Where more than one grade ring is required, apply a continuous bead of sealant as above. Then apply sealant to the top surface of the grade ring and set the casting firmly in place taking care to properly center it over the structure opening and ensuring a firm contact between the casting and the grade ring. Exercise care in backfilling around grade rings and casting prior to joint sealant being fully cured.

Use concrete rings of a size that closely matches the inside and outside dimensions of the structures. If more than 4 inches of adjustment is necessary, use one concrete ring 4 inches or more in height with a maximum of one 2-inch concrete ring on top. Tie concrete rings to the structure using a minimum of two No. 4 rebars, spaced on opposite sides of the structure, when the total thickness of concrete rings is 6-inches or greater. Drill the hole for the bar to a depth of 6 inches into the top of the structure and to such a diameter as to provide a secure fit. The bar shall be of adequate length to secure the concrete rings to the structure without protruding out of the top concrete ring.

Compact around each manhole to prevent settling.

D Measurement

The department will measure Adjusting Manhole Covers Rubber Rings by each individual manhole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Adjusting Manhole Covers with Rubber Rings	Each

Payment is full compensation for furnishing all work hereinafter described and will be in accordance to standard spec 611.
(NER11-0208)

75. Adjusting Sanitary Manhole Cover, Item SPV.0060.04.

A Description

This special provision describes adjusting sanitary manhole covers.

B Materials

In accordance to standard spec 611.2 and the “Manhole, Inlet, and Catch Basin Adjusting Rings” special provision article.

C Construction

In accordance to standard spec 611.3, the “Manhole, Inlet, and Catch Basin Adjusting Rings” special provision article, and as follows:

Remove the existing chimney seals, as necessary to adjust manhole cover.

D Measurement

The department will measure Adjusting Manhole Cover 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 NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Adjusting Sanitary Manhole Cover	Each

Payment is full compensation for providing all required materials, exclusive of frames, grates, or lids; for removing, reinstalling and adjusting the covers, including removing the existing chimney seal.

76. Adjusting Water Service Curb Stop, Item SPV.0060.05.

A Description

Adjust existing water service curb stops to the required elevation.

B (Vacant)

C Construction

The contractor is responsible throughout the duration of the project to ensure water service curb stops are located and identified in blue paint and that curb stops remain accessible to Village of Wrightstown public works staff.

Adjust water service curb stops located within the proposed concrete sidewalk and turf areas to the proposed finished grade elevation. Exercise caution in working adjacent to curb stop facilities to avoid damage to the curb stops and ensure accessibility to the curb stops during construction.

D Measurement

The department will measure Adjusting Water Service Curb Stop by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Adjusting Water Service Curb Stop	Each

Payment is full compensation for adjusting water service curb stops.

77. Adjusting Water Valve Box, Item SPV.0060.06.

A Description

Adjust water valve boxes to final pavement elevations, as shown in the plans and as hereinafter provided.

B Materials

Utilize existing valve boxes where the required extent of adjustment allows. If additional sections are necessary, determine existing size and type of valve box and match as necessary.

C Construction

Prior to completion of paving operations, adjust the water valve boxes to match the final proposed grade. Excavate and expose the existing water main valve box to the depth needed to adjust the valve box to grade, add or remove extension(s) as needed, and backfill with base aggregate material in accordance to the requirements for the adjacent roadway base course construction.

Complete adjustments in such a manner to avoid any damage to the water valve boxes. Provide the Village of Wrightstown two working days advance notice prior to adjusting the valve boxes to finished grade.

D Measurement

The department will measure Adjusting Water Valve Box as each individual adjusted valve box, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Adjusting Water Valve Box	Each

Payment is full compensation for adjusting each valve box; excavating as necessary to access the valve box; backfilling; repairing any damage done to the valve box during adjustment; adding new sections if necessary.

78. Clearance Gauge, Item SPV.0060.07.

A Description

This special provision describes cleaning the end of a pier and painting a clearance gauge on it. This work shall be in accordance to the plans, as directed by the engineer, and as hereinafter provided.

B Materials

Use paint that is formulated to be used on concrete in exterior weather conditions.

C Construction

To clean the area to be painted, give it a light sand blast.

D Measurement

The department will measure Clearance Gauge as each individual clearance gauge, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Clearance Gauge	Each

Payment is full compensation for cleaning the pier area and painting the clearance gauge; and for furnishing all materials.

79. Flexible Coupling, Item SPV.0060.08.

A Description

This special provision describes furnishing and installing flexible couplings for the downspouts beneath the bridge superstructure, as shown on the plans, and as hereinafter provided.

B Materials

B.1 Hose

Hose shall be flexible rubber with a minimum wall thickness of 3/16-inches. Hose shall remain flexible at temperatures of minus 30 degrees Fahrenheit. Furnish a hose manufactured by Fernco, Inc., Unaflex Rubber Corp., Manville, Heckman, or equal. In accordance to the standard specifications, prepare and submit to the engineer catalog sheets, product literature, sketches and/or specifications for the hose.

B.2 Clamps

Furnish and install clamps that are made of ASTM A36, and are galvanized according to ASTM A123. Clamps shall be fabricated such that the downspout will be securely attached to the flexible hose when the bolts are fully tightened.

B.3 Bolts

Furnish and install stainless steel Type 304 bolts, nuts and washers.

C (Vacant)**D Measurement**

The department will measure Flexible Couplings as a unit for each individual coupling, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Flexible Coupling	Each

Payment is full compensation for furnishing and installing the rubber hose including steel clamps and bolts.

80. Sun Wetland Planting, Item SPV.0060.09.**A Description**

This item consists of providing and planting native herbaceous wetland plants within sunlit areas, in accordance to standard spec 632, as directed by the engineer following installation of the Class II Type B erosion control mat.

B Materials

Provide plants in accordance to standard spec 632.2.2.1. Plants shall be potted or plug stock with a minimum live shoot length of 12 inches. The minimum acceptable pot or plug size is 11 to 12 cubic inches, corresponding to a 32-cell to 38-cell planting flat.

Provide the following 2 species of grasses and sedges in the quantities listed:

GRASSES AND SEDGES

<u>Name</u>		<u>Plants/1,000 sq.ft.</u>
Spartina pectinata	Cordgrass	4
Carex grayi	Gray's sedge	4

In addition provide 2 of the following 5 species of grasses and sedges in the quantities listed:

GRASSES AND SEDGES

<u>Name</u>		<u>Plants/1,000 sq.ft.</u>
Carex lacustris	Lake sedge	4
Carex crinita	Fringed sedge	4
Carex lupulina	Hop sedge	4
Carex crus-corvi	Crowfoot sedge	4
Carex stipata	Awl-fruited sedge	4

Provide the following 4 species of wildflowers in the quantities listed:

WILDFLOWERS

Acorus calamus	Sweet flag	4
Eutrochium purpureum	Joe-pye weed	4
Iris virginica	Southern blue flag	4
Vernonia fasciculata	Ironweed	4

In addition provide 2 of the following 7 species of wildflowers in the quantities listed:

WILDFLOWERS

Symphyotrichum novae-angliae	New England aster	4
Helianthus grosseserratus	Sawtooth sunflower	4
Helenium autumnale	Sneezeweed	4
Silphium perfoliatum	Cup plant	4
Hypericum majus	Greater St. John's wort	4
Rudbeckia laciniata	Cut-leaf coneflower	4
Eupatorium perfoliatum	Boneset	4

TOTAL PLANTS per 1,000 sq.ft. 40

C Construction

All planting shall be completed in the spring planting season before June 15.

Sun Wetland Planting shall be planted in the areas indicated by the engineer.

Plants shall be planted by cutting a slit no longer than six inches within the installed erosion mat and then digging a small hole of appropriate dimension to accommodate the entire root structure of the plant. After placing the plant in the hole, the hole shall be backfilled with the excavated native soil and firmly heel-tamped.

D Measurement

The department will measure Sun Wetland Planting by each individual live plant, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Sun Wetland Planting	Each

Payment is full compensation in accordance to standard spec 632.5; and for furnishing, handling, storing and planting all plants.

81. Wetland Tree Planting, Item SPV.0060.10.**A Description**

This item consists of providing and planting balled-and-burlapped Swamp White Oak trees within sunlit areas, in accordance to standard spec 632, as directed by the engineer following installation of the Class II Type B erosion control mat.

B Materials

Provide plants in accordance to standard spec 632.2.2.1. Trees shall be balled-and-burlapped Swamp White Oak (*Quercus bicolor*) with a minimum caliper dimension of two inches.

C Construction

Swamp white oak trees shall be planted at a rate of 12 trees per 1,000 square feet within sunlit wetland areas as indicated by the engineer, in accordance to the standard specifications for planting such stock.

D Measurement

The department will measure Wetland Tree Planting by each individual tree, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Wetland Tree Planting	Each

Payment is full compensation in accordance to standard spec 632.5 for furnishing, handling, storing and planting all trees.

82. Wetland Shrub Planting, Item SPV.0060.11.**A Description**

This item consists of providing and planting containerized native wetland shrubs within the wetland restoration area, in accordance to standard spec 632, as directed by the engineer following installation of the Class II Type B erosion control mat.

B Materials

Provide plants in accordance to standard spec 632.2.2.1. Wetland shrubs shall be containerized stock in 3-gallon containers (ANLA no. 3 container) with a minimum age of two years. The following species are required:

Provide the following 2 species of shrubs in the quantities indicated.

<u>Name</u>		<u>Number/1,000 sq.ft.</u>
Cephalanthus occidentalis	Buttonbush	5
Ilex verticillata	Winterberry	5

In addition provide 1 of the following 2 species of shrubs in the quantities indicated.

<u>Name</u>		<u>Number/1,000 sq.ft.</u>
Sambucus canadensis	Elderberry	5
Ribes americanum	Black currant	5

C Construction

Wetland shrubs shall be planted at a total rate of 15 shrubs per 1,000 square feet within sunlit wetland areas as indicated by the engineer, in accordance to the standard specifications for planting such stock.

D Measurement

The department will measure Wetland Tree Planting by the number of trees, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.11	Wetland Shrub Planting	Each

Payment is full compensation in accordance to standard spec 632.5 for furnishing, handling, storing and planting all shrubs.

83. Wildlife Structures, Item SPV.0060.12.

A Description

Wildlife structures are assemblages or individual items of large woody debris consisting of stumps and root wads, tree trunks and portions of the tree trunks with branches that will be installed within the finish-graded wetlands as wildlife habitat enhancements. Twenty wildlife structures shall be installed within project site. The structures shall be installed in the summer just prior to installation of interim erosion control measures that will stabilize the site between the end of the fall construction period and the execution of native seeding, planting and final site stabilization in the following spring.

B Materials

Wildlife structures shall consist of woody debris, stumps, and logs salvaged from the cleared and grubbed temporary wetland fill area as described herein.

Materials for the wildlife structures will be selected in coordination with the engineer prior to any clearing or grubbing operations. These materials shall be salvaged, collected and stockpiled by the contractor in an area approved by the engineer for installation on the restored wetland grade after removal of the temporary wetland fill. The contractor shall exercise suitable care in salvage so as not to damage or compromise the character or dimensions of the material below what is required in this specification.

Each wildlife structures shall consist of a tree trunk and its root wad and have a minimum total length of 15 feet with a minimum trunk diameter of 12 inches, measured at 5 feet from the base of the trunk.

C Construction

Wildlife Structures shall be installed within sunlit areas of the restoration area as shown in the mitigation plans. Exact locations will be determined by the engineer. Installation shall consist of partial burial of the root wad so that the bottom side of the tree trunk is less than six inches from the surface of the restored wetland grade

D Measurement

The department will measure Wildlife Structures by each individual wildlife structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Wildlife Structures	Each

Payment is full compensation for providing all materials and constructing wildlife structures.

84. Special Sign Post and Bracket, Item SPV.0060.13.**A Description**

Furnish and install sign posts with Kleen Break Model 425 Sign Post Coupler system, in accordance to the pertinent provisions of standard spec 634 and as hereinafter provided.

B Materials

Furnish 2-1/4-inch square 12 gauge perforated galvanized finished steel posts that have a wall thickness of 0.095-inch, and of sufficient length when installed to meet the sign height requirements in accordance to the MUTCD and standard sign installation details.

Use the following Kleen Break Model 425 Sign Post Coupler Part Number as supplied by Xcessories Squared, based on the surface material where the sign support is located.

Imbedded concrete flush installation: XKB42520-G

Earth installation: XKB42520-G with WS25-16-Z soil bearing wing sleeve

C Construction

Mark location of proposed sign support and all underground utilities in the area. Obtain the engineer's approval for location before beginning to install the sign support. Install Kleen Break supports for concrete installations prior to constructing concrete sidewalk.

Install anchor system with soil bearing wings for installations where the finished grade is grass. Install anchor system without the soil bearing wing where the finished grade is concrete sidewalk.

Install the anchor system and sign post according to the manufacturer's recommendations. Install anchors flush with the finished grade. Erect signpost in a true vertical position.

For signpost installations where the finished grade is grass, drive the wing sleeve into undisturbed ground in accordance to the manufacturer's recommendations.

For signpost installations where the finished grade is existing concrete utilize the surface mount assembly anchor, Part No: XKBSM42520-G, or core a 4-inch diameter hole through the concrete slab to the required depth. Install anchor system and signpost in core hole and backfill with Grade A concrete. Complete signpost installation after the concrete has cured a minimum of 72 hours.

Remove and properly dispose of all excess excavation, surplus materials, and debris resulting from the installation. Repair and restore all other work damaged by installation operations.

D Measurement

The department will measure Special Sign Post and Bracket as each individual post with anchor system, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.13	Special Sign Post and Bracket	Each

Payment is full compensation for furnishing sign post; for installing sign post and anchor system; for concrete coring as necessary; and for properly disposing of excess material.

85. Catch Basin Special, Item SPV.0600.14.

A Description

This special provision describes furnishing and installing a catch basin for the open drain on Structure B-5-381.

B Materials

Furnish a catch basin that is according to the pertinent requirements of standard spec 514. Fabricate the catch basin out of a non-corrosive material, including, but not limited to, reinforced thermosetting resin or stainless steel, that is compatible with the reinforced thermosetting resin pipe (RTRP) downspout and hangers.

C Construction

Fabricate and install the catch basin in accordance to the plan details, the fabricator's approved shop drawings, and as directed by the engineer.

D Measurement

The department will measure Catch Basin Special as each individual catch basin, 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.0600.14	Catch Basin Special	Each

Payment is full compensation for fabricating, furnishing and installing the catch basin.

86. Anchor Bolt Assembly Sign Bridge, Item SPV.0060.15.

A Description

This special provision describes furnishing and installing anchor bolt assemblies for an overhead sign support to be installed on B-5-381 as shown on the plans, and as hereinafter provided.

B Materials

Furnish anchors of the size and spacing as given on the plans, and that conform to ASTM A449 or AASHTO M314 GR 55. The upper 12 inches of the bolts, nuts, and washers shall be hot-dipped galvanized in accordance to ASTM A153, Class C. Provide enlarged threads on nuts for proper fit after galvanizing.

C Construction

Provide the number of anchor bolts, nuts, washers, and anchor plate/template, as detailed on the plans and install per plan details.

D Measurement

The department will measure Anchor Bolt Assembly Sign Bridge as a unit for each individual anchor bolt assembly, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.15	Anchor Bolt Assembly Sign Bridge	Each

Payment is full compensation for furnishing and installing the anchorages.

87. Anchor Bolt Assembly Signs, Item SPV.0060.16.**A Description**

This special provision describes furnishing and installing anchor bolt assemblies for attaching sign posts to B-5-381 as shown on the plans, and as hereinafter provided.

B Materials

Furnish anchors of the size and spacing as given on the plans, and that conform to ASTM A449 or AASHTO M 314 GR 55. The upper 12 inches of the bolts, nuts, and washers shall be hot-dipped galvanized in accordance to ASTM A153, Class C. Provide enlarged threads on nuts for proper fit after galvanizing.

C Construction

Provide the number of anchor bolts, nuts, washers, and anchor plate/template, as detailed on the plans and install per plan details.

D Measurement

The department will measure Anchor Bolt Assembly Signs as a unit for each individual anchor bolt assembly, 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.0060.16	Anchor Bolt Assembly Signs	Each

Payment is full compensation for furnishing and installing the anchorages.

88. Anchor Bolt Cover Shroud, Item SPV.0060.17.**A Description**

This work shall be in accordance to the requirements of standard spec 657 and as hereinafter provided.

B Materials

Furnish aluminum cover shroud in accordance to the plans and standard spec 657.2.2.5 and as hereinafter provided:

Housing and cover plate shall be 12 gauge aluminum. Rivets or bolts shall be used to attach the cover plate to the housing. Rivets, if used, for attaching the cover plate to the housing shall be aluminum and sized in accordance to the specifications determined by the fabricator of the unit. Bolts, if used, for attaching the cover plate to the housing shall be stainless steel. Provide non metallic washers between the cover shroud and steel lock washer.

C Construction

In accordance to the plans and standard spec 657.3 and as hereinafter provided:

Follow all manufacturer installation guidelines for installation of cover shroud and accessories. Apply silicone sealant between the top of the cover shroud body and the aluminum cover plate.

D Measurement

The department will measure Anchor Bolt Cover Shroud by each individual anchor bolt cover shroud, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.17	Anchor Bolt Cover Shroud	Each

Payment is full compensation for furnishing and installing anchor bolt cover shrouds.

89. Pavement Marking Grooved Contrast Preformed Thermoplastic Arrows, Type 2, Item SPV.0060.18; Pavement Marking Grooved Contrast Preformed Thermoplastic Words, Item SPV.0060.19.

A Description

This special provision describes work in accordance to standard spec 646, and as hereinafter provided.

A.1

The markings must be a resilient white, yellow, or other color thermoplastic product, wherein every other shaped portion contains glass beads or abrasives with a minimum hardness of 7 (Mohs scale). The marking must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids, etc. Lines, legends and symbols are capable of being affixed to bituminous and/ or Portland cement concrete pavements by the use of the normal heat of a propane torch.

A.2

The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.

A.3

The marking shall not have minimum ambient and road temperature requirements for application, storage, or handling.

B Materials

Must be composed of an ester modified resin resistant to degradation by motor fuels, lubricants etc. in conjunction with aggregates, pigments, binders abrasives, and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249-70 (98), with the exception of the relevant differences due to the material being supplied in a performed state.

B.1 Graded Glass Beads

B.1.1

The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall be clear and transparent. Not more than twenty Percent (20%) consists of irregular fused spheroids, or silica. The index of refraction shall not be less than 1.50.

B.1.2

The material must have factory applied coated surface beads and abrasives in addition to the intermixed beads at a rate of 1/2lb. (+/- 20%) per 11 sq ft. The surface beads and abrasives must be applied so that every other shaped portion contains glass beads, or abrasives with a minimum hardness of 7(Mohs scale). These factory applied coated surface beads shall have the following specifications:

- 1) Minimum 80% rounds
- 2) Minimum refractive index of 1.5
- 3) Minimum SiO₂ content of 70%;
- 4) Maximum iron content of 0.1%;

Size Gradation		Retained, %	Passing, %
US Mesh	Um		
12	1700	0-2%	98 – 100%
14	1400	0 – 6%	94 – 100%
16	1180	1 – 21%	79 – 99%
18	1000	28 – 62%	38 – 72%
20	850	62 – 71%	29 – 38%
30	600	67 – 77%	23 – 33%
50	300	86 – 95%	5 – 14%
80	200	97 – 100%	0 – 3%

B.2 Pigments

B.2.1 White

The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

B.2.2 Red, Blue, and Yellow

The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal free.

B.2.3 Other Colors

The pigments must be heavy-metal free.

B.3 Heating Indicators

The top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. These indents act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and proper bead embedment has been achieved and a post-application visual cue that the installation procedures have been followed.

B.4 Skid Resistance

The surface of the preformed retroreflective materials, wherein every other shaped portion contains glass beads, or abrasives with a hardness of 7 (Mohs scale), shall upon application provide a minimum skid resistance value of 60 BPN when tested according to ASTM: E 303.

B.5 Thickness

The material must be supplied at a minimum thickness of 90 mils (2.29 mm).

B.6 Retroreflectivity

The preformed retroreflective marking materials upon application shall exhibit adequate and uniform nighttime retroreflectivity. The marking materials shall have the following retroreflectivity as measured using a Delta LTL 2000 or LTL-X Retroreflectometer.

White preformed reflective marking materials-minimum of $275 \text{ med-m}^{-2}\text{-lx}^{-1}$

Note: Initial retroreflection and skid resistance are affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection and skid resistance levels may be affected

B.7 Environmental Resistance

The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

B.8 Abrasives

The material must have a factory applied surface adhesives, wherein every other shaped portion contains glass beads, or abrasives with a minimum hardness of 7 (Mohs scale).

C Application

C.1

Location of Pavement Marking Grooved Preformed Thermoplastic Arrows Type X and Pavement Marking Grooved Preformed Thermoplastic Words shall be approved by engineer prior to installations.

Apply preformed marking as the manufacturer specifies, the pavement shall be grooved to receive the preformed material and the leading edge of all installations shall be heated and beveled; provide the engineer with the manufacturer's specifications. Cut groove to a depth of 100 mils +/- 10 mils. The groove may be 0 to 4 inches from the perimeter of the special marking. The engineer will evaluate the performance of the preformed marking as specified in standard spec 646.3.3.4.

C.2 Asphalt

The Materials shall be applied using the propane torch method recommended by the manufacturer. The material must be able to be applied without minimum requirements for ambient and road temperatures and without any preheating of the pavement to a specific temperature. The material must able to be applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions with each box/package.

C.3 Portland Concrete

The same application procedure shall be used as described under section C2. However a compatible sealer may be applied before application to assure proper adhesion.

D Measurement

The department will measure the Pavement Marking Grooved Preformed Thermoplastic Arrows, (Type) and Pavement Marking Grooved Preformed Thermoplastic Words 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.0060.18	Pavement Marking Grooved Contrast Preformed Thermoplastic Arrows, Type 2	Each
SPV.0060.19	Pavement Marking Grooved Contrast Preformed Thermoplastic Words	Each

Payment is full compensation for locating, furnishing and installation of pavement marking.

90. Bridge Lighting Pull Boxes, SPV.0060.20.

A Description

This work shall consist of furnishing and installing electrical pull boxes in accordance to standard spec 653, the plan details, and as herein provided.

B Materials

Lighting pull boxes shall be a stacked rectangular composite enclosure with nominal 17" wide x 30" long and 36" total depth as shown on the plans. The composite boxes shall be UL Listed, constructed of polymer concrete and reinforced by a heavy-weave fiberglass. The pull boxes shall be rated for 15,000 lbs. over a 10" x 10" area at a temperature of -50°F. The box shall be furnished with a cover having a "Lighting" logo, skid resistant surface with a minimum coefficient of friction of .5 and concrete gray color. The cover fasteners shall be stainless steel captive 3/8-inch hex head bolts with stainless steel inserts.

C Construction

The pull boxes shall be set flush with the grade or pavement and installed on aggregate as indicated on the plans.

D Measurement

The department will measure Bridge Lighting Pull boxes as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.20	Lighting Pull Boxes	Each

Payment is full compensation for furnishing and installing all materials, including pull box, crushed aggregate; for excavation, backfill, and disposal of surplus materials.

91. Bridge Lighting Control Cabinet, Item SPV.0060.21.

A Description

This special provision describes furnishing and installing lighting control cabinet and concrete base as shown on the plans and hereinafter provided. The meter pedestal shall be paid for under a separate item.

B Materials

B.1 Contactors

The contactors shall be electrically held Cutler-Hammer ECL04 series in a NEMA 1 enclosure with and cover mounted Hand-Off-Auto Switch with legend plate or equal by GE or Square D. Provide 1" high engraved plaque on contactor cover with "LIGHTING" or "RECEPTACLES" in 1/2" text as appropriate.

B.2 Photocells

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

B.3 Panelboards

The panelboard shall be in a NEMA 1 enclosure as manufactured by Cutler-hammer PRL1a (size not to exceed 20"W x 38"H x 5.75"D) or equal by Square D or GE. The panel shall be rated as indicated on the plans. Provide copper ground and split neutral bus bars in addition to copper bus bars. Provide bolt-on, thermal-magnetic circuit breakers that clearly indicate ON, OFF or TRIPPED position in the panel.

B.4 Enclosures

The cabinet and door shall be constructed from 5052-H32 sheet aluminum alloy which has a thickness of .125 inch. External welds shall be made by using the Heliarc welding method; whereas, internal welds will be made by the wire welding method. All welds shall be neatly formed and free of cracks, blow holes and other irregularities. All inside and outside edges of the cabinet shall be free of burrs. The cabinet shall be designed with a sloped top to prevent the accumulation of water on its top surface. The door opening shall be double flanged on all (4) sides which increases strength around openings and keeps dirt and liquids from entering the enclosure when door is opened. A door restraint shall be provided to prevent door movement in windy conditions. The enclosure interior back shall be provided with a rigid 5052-H32 aluminum equipment mounting panel having a thickness of .125 inch.

The cabinet door will be a minimum of 80% of the front surface area and shall be hinged on the right side when facing the cabinet. The door shall be furnished with a gasket that satisfies the physical properties as found in UL508 table 21.1 and shall form a weathertight seal between the cabinet and door. The hinges shall be continuous and bolted to the cabinet and door utilizing 1/4-20 stainless steel carriage bolts and nylock nuts. The hinge will be made of .075 inch thick stainless steel and shall have .250 inch diameter stainless steel hinge pin. The hinge pin shall be capped top and bottom by weld to render it tamperproof. Hinge leaves will not be exposed externally when the door is closed, but hinge knuckles may protrude. All bolt holes shall be gasketed. The latching mechanism shall be a 3-point draw roller type. Pushrods will be turned edgewise at the outwards supports and shall be .250 inch by .750 inch aluminum, minimum. Rollers shall have a minimum diameter of .875 inch and will be made of nylon. The center catch shall be fabricated from .187 aluminum, minimum. An operating handle shall be furnished. The handle will be stainless steel with a 3/4 inch diameter shank. The latching handle shall have a provision for padlocking in the closed position. The lock shall be keyed dead bolt Corbin Lock or equivalent. Five keys will be furnished with each lock.

The enclosure shall have a black anodized finish. After purchase paint finishes will not be accepted. There shall be no louvers or police door. Provide an enclosure manufactured by APX Enclosures, Cleveland Manufacturing or Southern Manufacturing. NO manufacturer identification plaques/tags shall be visible on the exterior of the cabinet. Cabinet not to exceed size shown on the plans.

B.5 Field Wiring Termination Blocks

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

B.6 Surge Arresters

The unit shall provide all modes of surge protection, meet UL1449 Third Edition with 26KA per mode and 78KA per phase surge current, contain LED line indicators, 5-year warranty, and dimensions of 7.5"H x 4.25"W x 4.0"D. Connect the surge suppressor to the branch circuit breaker as indicated on the plans. The surge arrester shall be equal to Intermatic EH Series or equal by Cutler-Hammer or LEA.

B.7 Time Clock

The time clock shall be astronomical with 4-day capacitor clock backup, -40°F to 158°F operating range, 40 year program schedule retention, LCD display, daylight saving time and leap year correction. Program to allow receptacles to turn on 1 hour prior to sunset (actual on time is through the photocontrol) and turnoff at midnight or as required by the Village. Provide a Tork DWZ100B or equal by Intermatic or Eltec.

B.8 Concrete Base

Conform to standard spec 654.2 and the plans.

C Construction

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

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

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

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

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.21	Bridge Lighting Control Cabinet	Each

Payment is full compensation for furnishing and installing photocontrol, contactors, panelboard, termination blocks, surge arrester, enclosure, grounding and electrical components, concrete base.

92. Concrete Control Cabinet Base, Item SPV.0060.22.

A Description

This special provision describes furnishing and installing the concrete control cabinet base for the lighting cabinet, as shown in the plans.

B Materials

Materials shall conform to the pertinent requirements of standard spec 654.2.

C Construction

Construction shall conform to the pertinent requirements of standard spec 654.3.

D Measurement

The department will measure Concrete Control Cabinet Base as each individual base, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item and per the requirements of standard spec 654.5 (2):

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.22	Concrete Control Cabinet Base	Each

93. Lighting Control Cabinet Black, Item SPV.0060.23.

A Description

This special provision describes furnishing and installing a Lighting Control Cabinet. Work under this item shall be in accordance to standard spec 651 s, this special provision, and the plans.

B Materials

Furnish Lighting Control Cabinet from the department qualified product list with a manufacturer applied black anodized finish. After purchase paint finishes will not be accepted.

C Construction

Under this SPV, furnish and install the cabinet, including all necessary wiring, miscellaneous accessories, and hardware to complete the installation of the cabinet.

The contractor shall follow manufacturer's instructions regarding installation.

All exposed threaded equipment mounting hardware shall be stainless steel.

All threaded stainless steel hardware and dissimilar metal threaded hardware shall be coated with an approved zinc-based anti-seize compound.

D Measurement

The department will measure Lighting Control Cabinet Black as each individual cabinet, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.23	Lighting Control Cabinet Black	Each

Payment is full compensation for furnishing and installing all materials, including cabinet, wiring, conduits, accessories, hardware and fittings necessary to install the cabinet.

94. Transformer Bases Breakaway 11 ½-Inch Bolt Circle Black, Item SPV.0060.24.

A Description

This work shall be in accordance to the requirements of standard spec 657, the plans, standard detail drawings, and as hereinafter provided.

B Materials

Amend standard spec 657.2.2.5, paragraph (1) to read as follows:

Furnish cast aluminum alloy pedestal and 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 defects affecting strength or service life. Furnish all bases with a manufacturer applied black anodized finish. After purchase paint finishes will not be accepted.

C Construction

In accordance to the requirements of standard spec 657.3.

D Measurement

The department will measure Transformer Bases Breakaway 11 ½-Inch Bolt Circle Black as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.24	Transformer Bases Breakaway 11 ½-Inch Bolt Circle Black	Each

Payment is full compensation for providing and installing the transformer base including grounding lugs and related mounting hardware, for leveling shims, and for corrosion prevention.

95. Poles Type 5 Aluminum Black, Item SPV.0060.25.**A Description**

This work shall be in accordance to the requirements of standard spec 657, the plans, standard detail drawings, and as hereinafter provided.

B Materials

Amend standard spec 657.2.2.1.1, paragraph (2) to read as follows:

Furnish poles from a department-approved manufacturer. Submit a materials list and accompanying certificate of compliance certifying that the poles incorporated into the work conform to the specified design criteria and other contract requirements. Ensure that the certificate of compliance is on the manufacturer's letterhead, signed by an authorized company officer, and is notarized. Also send a copy of the certificate and a copy of the pole shop drawings to the department electrical engineer. Furnish all poles with a manufacturer applied black anodized finish. After purchase paint finishes will not be accepted.

C Construction

In accordance to the requirements of standard spec 657.3.

D Measurement

The department will measure Poles Type 5 Aluminum Black 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.0060.25	Poles Type 5 Aluminum Black	Each

Payment is full compensation for providing and installing the type 5 poles including grounding lugs and related mounting hardware, for leveling shims, and for corrosion prevention.

96. Luminaire Arms Truss Type 4 ½-Inch Clamp 12-FT Black, Item SPV.0060.26.

A Description

This work shall be in accordance to the requirements of standard spec 657, the plans, standard detail drawings, and as hereinafter provided.

B Materials

Amend standard spec 657.2.2.3, paragraph (2) to read as follows:

Furnish luminaire arms from a department-approved manufacturer. Submit a materials list and accompanying certificate of compliance certifying that the luminaire arms incorporated into the work conform to the specified design criteria and other contract requirements. Ensure that the certificate of compliance is on the manufacturer's letterhead, signed by an authorized company officer, and is notarized. Also send a copy of the certificate and a copy of the pole shop drawings to the department electrical engineer. Furnish all luminaire arms with a manufacturer applied black anodized finish. After purchase paint finishes will not be accepted.

C Construction

In accordance to the requirements of standard spec 657.3.

D Measurement

The department will measure Luminaire Arms Truss Type 4 ½-Inch Clamp 12-FT Black 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.0060.26	Luminaire Arms Truss Type 4 ½-Inch Clamp 12-FT Black	Each

Payment is full compensation for providing and installing the 12-FT luminaire arms and related mounting hardware, for leveling shims.

97. Bridge Lighting Units, Item SPV.0060.27.

A Description

This special provision describes furnishing and installing pole shafts, mast arms, luminaires, nut covers, festoon outlet, pole wiring/fusing and all miscellaneous hardware required to complete the installation of light poles, in accordance to standard specs 655, 657 and 659, as shown on the plans, and as hereinafter provided.

B Materials

Furnish and deliver lighting units conforming to the details as shown on the plans.

B.1 Poles

Pole design shall conform to AASHTO design and fabrication standards for structural supports for highway signs, luminaires and traffic signals. Use a design life of 25 years. Design to withstand a 3 second gust wind speed of 90mph (145 km/h). The pole shall support twin 15-foot truss-type mast arms and luminaires with a weight of 50lbs and 1.5EPA as well as taking into account the effects of the festoon receptacle and banner in accordance to the details as shown on the plans.

The pole shaft shall be aluminum, one-piece tapered construction.

Each pole shall have a factory installed internal dumb-bell type vibration damper.

The wall thickness of each shaft, alloy number, the shaft length, the manufacturer, and the date, shall all be indicated on a manufacturer's plate attached to each shaft near the base.

All shafts shall have a J-hook at the top of each pole to provide strain relief for the cable.

Any and all fasteners and other attachment hardware used on the pole shaft shall be stainless steel unless otherwise approved.

Nut covers shall be provided to conceal the anchor bolts at the base plate.

The pole shafts and nut covers shall have a Class 1 anodized black finish.

B.2 Mast arm

The aluminum mast arm shall be a clamp on type in accordance to standard spec 657. All fasteners shall be stainless steel.

The mast arm assembly shall have a Class 1 anodized black finish.

B.3 LED luminaire

The LED luminaire shall comply with type LED B luminaire per DOT Specification standard spec 659 and as allowed on Qualified Electrical Products List, except it shall be factory finished black (completely including housing and extrusion).

B.4 Festoon Receptacles

The festoon receptacle shall consist of a duplex 20 amp, 125 volt commercial grade receptacle with a 2-3/8"D x 3-3/8"W x 5-3/4"H cast aluminum, lockable, UL listed cover that is suitable for wet locations while-in-use.

The cover shall be painted black by the pole manufacturer to match the pole finish.

B.5 Pole Wiring/fusing

Conductors from the underground cable network to the luminaire shall be #12 AWG Type USE/RHW (XLP) individual conductors. In each utilized phase conductor in the handhole, there shall be installed a 1-pole or 2-pole secondary inline 600 VAC fuse assembly with #12AWG copper crimp connections at each end, and a fast acting, current limiting type CC fuse. Conductors shall have sufficient length to permit removal of the fuse assembly through the handhole. Conductors are paid for separately.

C Construction

Install the lighting units on bridge.

Furnish and install all incidental items, such as grommets, splices, etc. necessary to make the lighting system complete.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.27	Bridge Lighting Units	Each

Payment is full compensation for furnishing and installing all materials, including pole shafts, nut covers, mast arms, luminaries, pole wiring/fusing, all hardware, and fittings necessary to completely install the pole.

98. LED Luminaire, LED-B Black, Item SPV.0060.28.

A Description

This special provision describes furnishing and installing LED luminaires. Work under this item shall be in accordance to standard spec 659 and this special provision.

B Materials

Furnish Luminaires Utility LED from the department qualified product list. Furnish luminaires that are factory finish color black. After purchase paint finishes will not be accepted.

C Construction

Under the bid item LED Luminaire, furnish and install luminaires and all necessary miscellaneous accessories and hardware to complete the installation of the luminaires.

The contractor shall follow manufacturer's instructions regarding luminaire installation.

All exposed threaded equipment mounting hardware shall be stainless steel.

All threaded stainless steel hardware and dissimilar metal threaded hardware shall be coated with an approved zinc-based anti-seize compound.

D Measurement

The department will measure LED Luminaire, LED-B Black as each individual lighting unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.28	LED Luminaire, LED-B Black	Each

Payment is full compensation for providing and installing all materials, including luminaire, accessories, hardware and fittings necessary to install the luminaire.

99. Pile Dynamic Analyzer (PDA) Testing, Item SPV.0060.29; Pile Dynamic Analyzer (PDA) Restriking, Item SPV.0060.30, CAsE Pile Wave Analysis Program (CAPWAP) Evaluation, Item SPV.0060.31.

A Description

The items consist of providing Pile Dynamic Analyzer (PDA) load testing and analyses/evaluation, as outlined in the contract plans and this special provision. This Dynamic Pile Load Testing is being done to set pile resistance criteria. Production piles will be driven in accordance to pile resistance criteria produced by the contractor after PDA testing and evaluation is completed at each substructure unit. PDA Restrikes will be completed as described in this special provision, or as directed by the engineer.

The piles and pile driving will be paid for under the standard spec 550 for piles and pile driving. This applies to both piles installed using the PDA criteria and for production piles installed using the criteria developed by the contractor from the PDA installations.

Data collected during the testing described herein will form the basis for the final driving criteria to be applied to production piles in the substructure unit under consideration. Submit to the engineer the name and qualifications of the person(s) completing this work. Provide documentation that the person(s) completing this work have successfully completed at least five PDA testing projects within the last three years, and that these identified projects are of a scope and complexity similar to that anticipated for this project. Persons without this minimum experience will not be allowed to complete work on this project. Also submit documentation of experience with PDA equipment manufactured by Pile Dynamics, Inc. and the CAsE Pile Wave Analysis Program (CAPWAP). All dynamic monitoring shall be performed using a PDA (Model PAK, PAX, or PAL). Furnish all equipment necessary for the dynamic monitoring such as sensors, cables, or wireless transmitters, etc. The equipment shall conform to the requirements of ASTM D4945. A person with a minimum of four years of experience and who has achieved a minimum of Advanced Level on the Foundation QA Examination for Providers of PDA Testing Services, shall be in charge of PDA operations and of data interpretation. They shall be present on site, or by remote connection, at the time of all PDA testing.

B (Vacant)

C Construction

C.1 Test Locations

Perform dynamic pile load testing at the pile locations identified on the plans. These locations are referred to simply as 'PDA Test Piles' throughout the remainder of this specification. Piles noted as PDA Test Piles are a functional load-carrying part of the completed foundation unit, and not solely used for testing.

C.2 Driving Sequence

Perform PDA testing on the first piles installed in each substructure unit. PDA Test Piles shall be located as shown on the footing plan. No other piles in the substructure unit shall be used for PDA testing unless agreed to by the engineer. Do not drive any other piles in the unit until all required testing has been completed and the final driving criteria for that substructure unit has been determined in writing and accepted by the engineer.

C.3 Pile Driving

Drive PDA Test Piles to penetration depths and/or penetration resistances as directed by the engineer. Drive PDA Test Piles using the same methods and equipment that have been accepted for driving the production piles.

Drive PDA Test Piles to one of the following lengths:

If the required plan driving resistance is achieved at a pile length less than plan length, stop driving the pile. Pile restrikes will be required as described in Section C6 of this special provision to document that the minimum plan required driving resistance is achieved.

If PDA indicated pile capacity is greater than or equal to 85% of the required driving resistance, at the estimated plan length, stop driving. Pile restrikes will be required as described in Section C6 of this special provision to document that the minimum plan required driving resistance is achieved.

If the pile resistance at plan length is less than 85% of the required driving resistance, continue to drive the pile until the resistance reaches 85% or more of the plan driving resistance. Upon achieving 85% or more, stop driving. Pile restrikes will be required as described in Section C6 of this special provision to document that the minimum plan required driving resistance is achieved.

In all cases, the required plan driving resistance will be shown either through end of initial drive data or from restrike data, as defined above.

C.4 Scheduling

Provide a written schedule to the engineer showing all required PDA Test Pile activities for the following week. Submit this schedule a minimum of two working days prior to the first day included in the schedule.

Multiple concurrent PDA testing and/or analyses will be allowed. Any delays to the contractors schedule due to coordination or untimeliness of PDA testing or evaluation/analyses will not be grounds for extension of contract time.

C.5 Installation Testing

Perform dynamic measurements following procedures set forth in ASTM D4945 during the driving of piles designated as PDA Test Piles.

Continuous PDA monitoring may require multiple installations of PDA testing equipment depending on the supplied pile length. If multiple piles lengths are used to produce the final installed pile, multiple PDA equipment installations will be required. With the PDA testing equipment attached, drive the pile and monitor using the PDA equipment.

C.6 Restrike Tests

Perform restrike tests on all PDA test piles as part of the initial dynamic pile load testing program as described in section C5. See restrike criteria given in section C3.

Wait a minimum of 12 hours and a maximum of 72 hours or a time period as directed by the engineer, after initial pile installation is complete; then, restrike each PDA test pile with the required dynamic testing instruments attached.

Warm the hammer before the restrike by applying at least 20 blows to a non-test pile, or by other means acceptable to the engineer.

The maximum amount of penetration required during the restrike test shall be 6 inches, or the maximum number of hammer blows required will be 30, whichever occurs first.

The pre-approved pile-driving hammer used for restrike testing shall be capable of supplying enough energy to develop a minimum of twice the required driving resistance shown on the plans.

C.7. CAPWAP Evaluation and Drive Criteria

Pile-driving criteria for each substructure unit shall be determined from dynamic pile tests conducted on the total length of each pile noted for PDA Testing in the plans. Submit the required driving resistance and the driving criteria for the production piles determined by dynamic pile testing to the engineer for acceptance for the production pile installation. Electronically submit the driving criteria and a report with the results of the CAPWAP evaluation to the engineer.

Utilize the dynamic test data to establish the following pile driving criteria: (1) a minimum driven length below cutoff level, and (2) a maximum penetration rate per 10 hammer blows for 30 consecutive blows. Drive all remaining piles in each unit in accordance to the established criteria for that unit.

Driving production piles shall continue until the required driving resistance is achieved for 30 consecutive hammer blows. Mark penetration per 10 consecutive hammer blows.

The engineer may alter driving criteria as necessary to assure development of adequate pile capacity. In any pile where pile capacity or integrity is suspect, the engineer may order PDA testing.

D Measurement

The department will measure Pile Dynamic Analyzer (PDA) Testing as each individual unit, acceptably completed, in which one unit includes all PDA-related effort on one pile during the initial driving.

The department will measure Pile Dynamic Analyzer (PDA) Restrikes as each individual unit, acceptably completed, in which one unit includes all of the restrike and testing effort required on an individual pile when it is restruck.

The department will measure Pile Dynamic Analyzer (PDA) / CAsE Pile Wave Analysis Program (CAPWAP) Evaluation as each individual unit, acceptably completed, in which one unit includes all analyses and effort required to provide drive criteria for installation of production piles in one substructure unit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.29	Pile Dynamic Analyzer (PDA) Testing	Each
SPV.0060.30	Pile Dynamic Analyzer (PDA) Restriking	Each
SPV.0060.31	CAsE Pile Wave Analysis Program (CAPWAP) Evaluation	Each

Payment for Pile Dynamic Analyzer (PDA) Testing is full compensation for facilitating the initial dynamic pile load test on a given pile, including possible multiple sensor installations.

Payment for Pile Dynamic Analyzer (PDA) Restrikes is full compensation for facilitating and performing one restrike test on a pile, including the sensor installation, mobilization of equipment, hammer warm-up, and pile restriking.

Payment for CAsE Pile Wave Analysis Program (CAPWAP) Evaluation is full compensation for providing the personnel, software and equipment to evaluate the results of the monitoring for each substructure unit for the purpose of establishing production pile driving criteria, and the electronic submittal of the driving criteria and report with the results of the CAPWAP evaluation.

100. Sedimentation Basin, Item SPV.0060.32.

A Description

This special provision describes designing, supplying, and maintaining a sedimentation basin used to dewater the cofferdams or others areas associated with the construction of B-5-381.

B (Vacant)

C Construction

Design a sedimentation basin to treat the water to remove suspended sediments by filtration, settlement, or other appropriate best management practice prior to discharge. The design of the sedimentation basin shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include how the intake will be managed to not cause an increase in the background level turbidity prior to treatment and any additional erosion control devices necessary to remove sediments prior to reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Management Technical Standards, Dewatering Code #1061 and Sedimentation basins #1064. Maintain the sedimentation basin at regular intervals or as directed by the engineer.

D Measurement

The department will measure Sedimentation Basin as each individual basin, 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.0060.32	Sedimentation Basin	Each

Payment is full compensation for design and approval; furnishing and maintaining each basin, additional erosion control devices necessary to achieve acceptable water quality; for any polymers required; and for removal of the basin.

101. Street Sweeping, Item SPV.0075.01.

A Description

Remove small dirt and dust particles from the roadway using a street sweeper periodically during the project as directed by the engineer.

B (Vacant)

C Construction

Provide a self-contained mechanical or air conveyance street sweeper and dispose of the material collected.

D Measurement

The department will measure Street Sweeping by the hour that the street sweeper is on the project picking up and removing debris from the roadway, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.01	Street Sweeping	HRS

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

(NER11-0602)

102. Pre-boring Unconsolidated Material Obstruction B-5-381, Item SPV.0075.02; Pre-boring Unconsolidated Material Obstruction R-5-110, Item SPV.0075.03.

A Description

A.1 General

The work included herein consists of removing, drilling, or coring through unknown, and unidentified, man-made subsurface obstructions when encountered during the preboring unconsolidated material.

A2 Definitions

Surface obstructions are defined as any objects, man-made or naturally deposited, encountered within 6 feet of the ground surface. Subsurface obstructions are defined as man-made obstructions that are encountered by the preboring equipment at a depth greater than 6 feet below the ground surface. Obstructions include only man-made materials, such as old concrete foundations, abandoned utilities or construction rubble. Known

obstructions are man-made obstructions that are shown or identified in the plans. Unknown obstructions are man-made obstructions that are not shown or identified in the plans. Naturally occurring deposits such as rock, boulders, cobbles and nested cobbles are not considered obstructions and therefore are not applicable to the provision of this pay item.

B (Vacant)

C Construction

Remove surface and subsurface obstructions at preboring locations. Advancement of the preboring hole exceeds 12 inches in 60 minutes using standard preboring equipment. Use special tools and/or procedures to remove or drill past the obstruction. Other methods for obstruction removal can be employed to aid in the removal if acceptable to the engineer. Blasting is not permitted.

D Measurement

The department will measure Preboring Unconsolidated Material Obstruction by the hour for each hour the contractor actively spends removing or drilling past the unknown man-made subsurface obstructions, acceptably completed. A quantity of one hour will be paid upon determination that a subsurface obstruction is encountered based on the lack of hole advancement with standard preboring operations. Upon removal of the unknown man-made subsurface obstruction, portions of the final hour measured will be rounded up to the next whole hour. Down time spent planning for subsurface obstruction removal or delays caused by the mobilization of special equipment and tools not readily available at the site will not be measured for payment.

Measurement Example		Paid Obstruction Hours
1	Preboring encounters possible subsurface obstruction. Contractor notifies engineer. Start Clock	0.00
2	Standard preboring equipment does not advance 12-inches after attempting to do so for at least 60 minutes.	1.00
3	Contractor resumes work clearing obstruction the following day. Assume the obstruction is cleared in aggregate total of 1 hour and 15 minutes. Obstruction is identified to be previously unknown and unidentified man-made obstruction	2.00

Only unknown (not identified in the plans), man-made subsurface obstructions, will be measured for payment. Work to clear and/or remove subsurface obstructions, known obstructions identified on the plans, and any natural deposits (rock, boulders, cobbles and nested cobbles) will not be measured separately 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.00075.02	Pre-boring Unconsolidated Material Obstruction B-5-381	Hours
SPV.00075.03	Pre-boring Unconsolidated Material Obstruction R-5-110	Hours

Payment is for full compensation for removal, drilling, or coring through unknown, man-made subsurface obstructions.

103. Bar Steel Reinforcement HS Stainless Bridges, Item SPV.0085.01.**A Description**

This work consists of furnishing and placing stainless steel reinforcing bars as shown in the plans and as hereinafter provided.

B Materials**B.1 General**

Conform to standard spec 505.2 except as modified in this special provision.

B.2 Grade and Type

The material shall conform to ASTM A 955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304.

Supply Grade 60 bars, all of the same UNS designation.

B.3 Evaluation of Corrosion Resistance

Prior to fabrication, supply test results from an independent testing agency certifying that stainless steel reinforcement from the selected UNS designation meets the requirements of Annex A1 of ASTM A955. Corrosion performance for the selected UNS designation shall be re-demonstrated if the processing method is significantly altered. Removal of mill scale or pickling processes used for stainless steel reinforcement supplied under this contract shall be the same as those used to prepare the samples tested per Annex A1 of ASTM A955.

B.4 Chemical Composition

Material shall conform to that specified in ASTM A276, Table 1, Chemical Requirements, for the given UNS designation.

B.5 Heat Treatment

Bars may be furnished in one of the heat treatment conditions listed in ASTM A955, and as needed to meet the requirements of this specification.

B.6 Finish

Supply bars that are free of dirt, mill scale, oil and debris by pickling to a bright or uniform light finish. Bars supplied with a tarnished or mottled finish are sufficient cause for rejection. Fabricate and bend bars using equipment that has been thoroughly cleaned or otherwise modified to prohibit contamination of the stainless steel from fragments of carbon steel or other contaminants.

Bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface are subject to rejection.

B.7 Bending and Cutting

Bend bars in accordance to standard spec 505.3.2 and ASTM A955. Use fabrication equipment and tools that will not contaminate the stainless steel with black iron particles.

To prevent such contamination, equipment and tools used for fabrication, including bending and cutting, shall be solely used for working with stainless steel. Do not use carbon steel tools, chains, slings, etc. when fabricating or handling stainless steel reinforcing bars.

B.8 Control of Material

All reinforcement bars or bar bundles delivered to the project site shall be clearly identified with tags bearing the identification symbols used in the Plans. The tags shall also include the UNS designation, heat treat condition, heat number, grade (corresponding to minimum yield strength level), and sufficient identification to track each bar bundle to the appropriate Mill Test Report.

Provide samples for department testing and acceptance in accordance to the CMM requirements for Concrete Masonry Reinforcement – Bar Steel (Uncoated).

Provide Mill Test Reports (MTR) for the project that:

1. Are from the supplying mill verifying that the stainless reinforcement provided has been sampled and tested and the test results meet ASTM A 955, ASTM A 276, Table 1 and the Contract requirements;
2. Include a copy of the chemical analysis of the steel provided, with the UNS designation, the heat lot identification, and the source of the metal if obtained as ingots from another mill;
3. Include a copy of tensile strength, yield strength and elongation tests per ASTM A955 on each of the sizes of stainless steel reinforcement provided;
4. Permit positive determination that the reinforcement provided is that which the test results cover;

5. Include a statement certifying that the materials meet standard spec 106 regarding material being melted and manufactured in the United States; and
6. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Conform to the construction methods in standard spec 505.3 except as modified in this special provision:

Ship, handle, store, and place the stainless steel reinforcing bars according to the applicable provisions with the following additions and exceptions:

- Prior to shipping, ensure that all chains and steel bands will not come into direct contact with the stainless steel reinforcing bars. Place wood or other soft materials (i.e., thick cardboard) under the tie-downs. Alternatively, use nylon or polypropylene straps to secure the stainless steel reinforcing bars.
- When bundles of reinforcing steel and stainless steel reinforcing bars must be shipped one on top of the other, load the stainless steel reinforcing bars on top. Use wooden spacers to separate the two materials. Space supports sufficiently close to prevent sags in the bundles.
- Outside storage of stainless steel reinforcing bars is acceptable. Cover the stainless steel reinforcing bars with tarpaulins.
- Store stainless steel reinforcing bars off the ground or shop floor on wooden supports and separately from carbon steel reinforcement. Space supports sufficiently close to prevent sags in the bundles.
- Do not use carbon steel tools, chains, slings, etc. when fabricating or handling stainless steel reinforcing bars. Only use nylon or polypropylene slings. Protect from contamination during construction operations including any cutting, grinding, or welding above or in the vicinity of the stainless steel bars. Flame cutting or welding of stainless steel reinforcing bars is prohibited.
- Place all stainless steel reinforcing bars on bar chairs that are solid plastic or stainless steel. Fabricate stainless steel metal chairs and continuous metal stainless steel supports from stainless steel conforming to the same requirements and UNS designations as stainless steel reinforcing bar as listed in Section B, "Materials". Use stainless steel chairs with plastic-coated feet above steel beams.
- Use stainless steel tie wires to tie stainless steel reinforcing bars. Tie wires shall conform to the same requirements and UNS designations as stainless steel reinforcing bars as listed in Section B, "Materials", dead soft annealed, annealed at size. The tie wire does not need to be of the same UNS designation as the bar reinforcement.

Do not tie stainless steel reinforcing bars to, or allow contact with uncoated reinforcing bars, galvanized forming hardware or attachments, or galvanized conduits. Direct contact with these materials is not acceptable. When stainless steel reinforcing bars or dowels must be near uncoated steel reinforcing bars, galvanized forming hardware, or other galvanized metals, maintain a minimum 1-inch clearance between the two metals. Where insufficient space exists to maintain this minimum, sleeve the bars with a continuous 1/8-inch minimum thickness polyethylene or nylon tube extending at least 1 inch in each direction past the point of closest contact between the two dissimilar bars and bind them with nylon or polypropylene cable ties. Sleeves are not required between stainless steel reinforcing bars and welded girder shear studs. Stainless steel reinforcing bars are allowed to be in direct contact with undamaged epoxy-coated reinforcing bars. Uncoated fasteners (such as used for static safety lines on beams), anchors, lifting loops, etc., that extend from the top flange of prestressed concrete beams into the bridge deck shall be completely removed or cut off flush with the top flange of the beam prior to casting the deck.

C.2 Splices

Splices shall be as shown in the plans. Substitution of stainless steel mechanical splices in lieu of lap splices shown on the plans may be permitted in certain situations subject to written approval by the engineer. Provide mechanical splices for stainless steel reinforcing bars made of stainless steel conforming to one of the UNS designations listed in section B, "Materials" and meeting the minimum capacity, certification, proof testing and written approval requirements of standard spec 550.3.3.4.

If it is necessary or the contractor elects to increase or alter the number or type of bar splices from those indicated in the plans, provide copies of plan sheets to the engineer showing the revised reinforcement layout, type, length and location of revised bar splices and revised bar lengths. The engineer must approve the location of new lap splices or substitution of mechanical bar couplers in lieu of bar lap splices prior to fabrication. New lap splices must be at least as long as those shown in the plans.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Bridges by the pound, acceptably completed. The department will compute the stainless steel bar weight using the standard weight per foot of equivalent size carbon steel reinforcing bars (ASTM A615) regardless of which stainless steel alloy is provided.

If the contractor is permitted to alter the reinforcement layout per C.2, no adjustment to the reinforcement bar quantity will be made for such alterations. Mechanical bar couplers that are provided but not shown in the plans are included in the item Bar Steel Reinforcement HS Stainless Bridges and will not be measured separately.

E Payment

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

ITEM	NUMBER DESCRIPTION	UNIT
SPV.0085.01	Bar Steel Reinforcement HS Stainless Bridges	LB

Payment is full compensation for providing, transporting and placing the stainless steel reinforcing bars with all component materials as described above.

If the contractor is permitted to alter the reinforcement layout per C.2, no additional compensation will be made for such alterations. Mechanical bar couplers that are provided, but not shown in the plans are included in the item Bar Steel Reinforcement HS Stainless Bridges and will not be paid for separately.

104. Mycorrhizal Inoculant, Item SPV.0085.02.

A Description

This item consists of supplying and applying to the seed bed during seeding operations a dry, granular form of fungal inoculant to promote growth and establishment of the germinating seed.

B Materials

The mycorrhizal inoculant shall be a domestically-produced dry granular substance containing endomycorrhizal fungi (*Glomus intraradices* or similar species) at the rate of 60,000 propagules per pound.

The material provided shall be suitable for application to a prepared seed bed using standard seeding equipment. The source and exact composition of the mycorrhizal inoculant shall be provided to the engineer for review and approval prior to any seeding operations.

C Construction

The inoculant shall be applied at a rate of 60 lbs per acre to all wetland/floodplain seeding zones to be seeded with Sun or Shade Wetland Seeding during the seeding operations.

The inoculant may be used as a bulking agent for the native seed mixture, or may be applied separately prior to seeding operations. The application method shall be coordinated and approved by the engineer.

D Measurement

The department will measure Mycorrhizal Inoculant by the pound of inoculants, acceptably applied.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.02	Mycorrhizal Inoculant	LB

Payment is the full compensation for supplying the inoculant and applying it to the seed bed.

105. Sun Wetland Seeding, Item SPV.0085.03.

A Description

This item consists of providing a native wetland seed mixture for sunlit portions of the restoration area, preparing the seed bed and applying the seed mixture to the seed bed in the areas indicated by the engineer in accordance to standard spec 630.

B Materials

Furnish seed in accordance to standard spec 630.2.1. The following types and amounts of seed shall be supplied in separate, labeled bags for inspection and approval by the engineer prior to mixing and seeding.

No chemical fertilizer shall be used.

All seed supplied by the contractor shall be at least 90% pure live seed, based on germination tests, and shall be current year crop.

Provide the following 3 species of grasses and sedges in the amounts listed for the respective species:

GRASSES AND SEDGES

<u>Species</u>		<u>Amount, oz.</u>
Carex lacustris	Lake sedge	12.0
Scirpus atrovirens	Dark green bulrush	2.0
Scirpus validus	Softstem bulrush	2.0

In addition provide 3 of the following 7 species of grasses and sedges in the amounts listed for the respective species:

GRASSES AND SEDGES

<u>Species</u>		<u>Amount, oz.</u>
Spartina pectinata	Cordgrass	24.0
Carex crinita	Fringed sedge	6.0
Carex lupulina	Hop sedge	12.0
Carex grayi	Gray's sedge	12.0
Carex crus-corvi	Crowfoot sedge	6.0
Carex hystericina	Porcupine sedge	6.0
Carex stipata	Awl-fruited sedge	8.0
	TOTAL MINIMUM OZ	50.0

Provide the following 4 species of wildflowers in the amounts listed for the respective species:

WILDFLOWERS

Cicuta maculata	Water hemlock	2.0
Helianthus grosseserratus	Sawtooth sunflower	4.0
Helenium autumnale	Sneezeweed	2.0
Rudbeckia laciniata	Cut-leaf coneflower	4.0

Provide 2 of the following 8 species of wildflowers in the amounts listed for the respective species:

WILDFLOWERS

Acorus calamus	Sweet flag	6.0
Symphyotrichum novae-angliae	New England aster	2.0
Eutrochium purpureum	Joe-pye weed	2.0
Eupatorium perfoliatum	Boneset	2.0
Iris virginica	Southern blue flag	8.0
Silphium perfoliatum	Cup plant	4.0
Vernonia fasciculata	Ironweed	2.0
Hypericum majus	Greater St.John's wort	2.0

TOTAL MINIMUM OZ 18.0

TOTAL MINIMUM AGGREGATE WEIGHT, OZ 68.0

C Construction

Seeding shall occur before May 15 or after November 1.

No seeding equipment shall be allowed on the seed bed unless cleaned by high-pressure spray equipment within the staging area and inspected and approved by the engineer.

The seed bed shall be prepared by light harrowing using a cleaned and approved LGP agricultural tractor and a cleaned harrow until a fine, even seed bed is established.

After the seed bed is approved by the engineer, the wetland seed shall be evenly applied over the entire area indicated as suited for this seed mixture by the engineer at the rate of 10.0 lb (160.0 oz) per acre. Any seeding equipment used shall be adapted for use with fine-seeded native wetland seed and shall be approved by the engineer. No more than 30,000 square feet of wetland (approximately 0.7 acres) will be seeded by Sun Wetland Seeding.

D Measurement

The department will measure Sun Wetland Seeding by the pound of pure live seed, 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.0085.03	Sun Wetland Seeding	LB

Payment is full compensation for furnishing, handling and storing all seed; for mixing the seed, for preparing the seed bed, sowing, covering and firming the seed.

106. Shade Wetland Seeding, Item SPV.0085.04.**A Description**

This item consists of providing a native wetland seed mixture for shaded portions of the restoration area, preparing the seed bed and applying the seed mixture to the seed bed in the areas indicated by the engineer in accordance to standard spec 630.

B Materials

Furnish seed in accordance to standard spec 630.2.1. The following types and amounts of seed shall be supplied in separate, labeled bags for inspection and approval by the engineer prior to mixing and seeding.

No chemical fertilizer shall be used.

All seed supplied by the contractor shall be at least 90% pure live seed, based on germination tests, and shall be current year crop.

Provide the following two species in the amounts listed for the respective species:

GRASSES AND SEDGES

<u>Species</u>		<u>Amount, oz.</u>
Carex grayi	Gray's sedge	8.0
Carex crinita	Fringed sedge	4.0

In addition provide one of the following three species in the amounts listed for the respective species:

GRASSES AND SEDGES

<u>Species</u>		<u>Amount, oz.</u>
Elymus riparius	Riverbank wild rye	16.0
Elymus virginicus	Virginia wild rye	16.0
Carex lupulina	Common hop sedge	12.0
TOTAL MINIMUM OZ		32.0

Provide the following two species in the amounts listed for the respective species:

WILDFLOWERS

<u>Species</u>		<u>Amount, oz.</u>
Impatiens capensis	Jewelweed	8.0
Lycopus americanus	Water horehound	4.0

Provide 1 of the following 3 species in the amounts listed for the respective species:

WILDFLOWERS

<u>Species</u>		<u>Amount, oz.</u>
Aster lateriflorus	Calico aster	4.0
Boehmeria cylindrica	False nettle	4.0
Ranunculus scleratus	Annual buttercup	8.0
TOTAL MINIMUM OZ		20.0

TOTAL MINIMUM AGGREGATE WEIGHT, OZ 52.0

C Construction

Seeding shall occur before May 15 or after November 1.

No seeding equipment shall be allowed on the seed bed unless cleaned by high-pressure spray equipment within the staging area and inspected and approved by the engineer.

The seed bed shall be prepared by light harrowing using a cleaned and approved LGP agricultural tractor and a cleaned harrow until a fine, even seed bed is established.

After the seed bed is approved by the engineer, the wetland seed shall be evenly applied over the entire area indicated as suited for this seed mixture by the engineer at the rate of 10.0 lb (160.0 oz) per acre. Any seeding equipment used shall be adapted for use with fine-seeded native wetland seed and shall be approved by the engineer. No more than 30,000 square feet (approximately 0.70 acres) will be seeded by Shade Wetland Seeding.

D Measurement

The department will measure Shade Wetland Seeding by the pound of pure live seed, 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.0085.04	Shade Wetland Seeding	LB

Payment is full compensation for furnishing, handling and storing all seed; for mixing the seed, for preparing the seed bed, sowing, covering and firming the seed.

107. Saw Cut Concrete, Item SPV.0090.01.

A Description

This work consists of cutting decorative patterns into concrete as shown in the plans.

B (Vacant)

C Construction

All saw cutting is to be completed before any stain is applied. Saw cut concrete pattern as shown in the plans with a maximum 1/4 inch width. Depth of cut shall be 1/4 inch.

Saw cut pattern shall not extend beyond any adjacent intersecting saw cut.

Clean all concrete dust from paving or other improvements in the vicinity after cutting is complete.

D Measurement

The department will measure Saw Cut Concrete by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Saw Cut Concrete	LF

Payment is full compensation for saw cutting concrete with groove pattern, and for cleaning concrete dust.

108. Concrete Curb and Gutter HES 30-Inch Type A, Item SPV.0090.02.

A Description

Construct concrete curb and gutter in accordance to the requirements of standard spec 601 and as hereinafter provided.

B Materials

Provide materials conforming to standard spec 601.2 and provide HES concrete conforming to standard spec 501.

C (Vacant)

D Measurement

The department will measure Concrete Curb and Gutter HES 30-Inch Type A by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Concrete Curb and Gutter HES 30-Inch Type A	LF

Payment is full compensation for furnishing all foundation excavation and preparation; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, curing, and protecting all materials; for backfilling; and for testing concrete cylinders.

109. Fence Decorative Bridge, Item SPV.0090.03.

A Description

This special provision describes fabricating, galvanizing, painting, delivering and installing decorative fencing.

B Materials

B.1 General

All materials shall meet the requirements as shown on the plans and the applicable provisions of the standard specifications as follows:

- Structural Steel: standard spec 506.2.2
- Steel Mesh: standard spec 505.2.5
- Painting: standard specs 517.2 and 517.3

After fabrication and prior to bolting and assembling the fence components, steel shall be blast cleaned per SSPC-SP 6 and galvanized according to ASTM A123. All bolts, nuts and washers shall be supplied as factory galvanized according to ASTM A153. Repair zinc coating damaged during fence assemblage as specified in standard spec 635.3.4. Grind the welded joints to a smooth finish where shown in the plans.

Steel preparation includes the chamfering of sharp edges. All sharp edges shall be flattened by a single pass of a grinder or suitable device along the sharp edge. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning.

The fence fabric shall consist of 8 GA. 2 inch by 2 inch welded wire mesh galvanized to ASTM A 123 and then painted with a pre-approved tie and top coat as given in this special provision. The vertical wires of the mesh shall be placed on the inside (Pedestrian/Traffic side) face of the fence.

B.2 Painting

All galvanizing surfaces shall be cleaned per SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. The cleaned surface should then be Brush Blast Cleaned per SSPC-SP7 to create a slight angular surface profile (1.0 – 1.5 mils suggested) for adhesion. Blasting should not fracture the galvanized finish or remove any dry film thickness.

After cleaning provide a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface. The tie coat shall etch the galvanized rail and prepare the surface for the top coat. Apply a top coat matching the specified color. The tie and top coats should be of contrasting colors. Use a pre-approved top coat that is resistant to the effects of the sun, and is suitable for use in a marine environment. The various decorative fence components shall be painted with the tie and top coats before final assembly of the fence panels. Exercise care so as not to damage the painted surface during panel assembly or fence installation.

Use one of the qualified paint sources and products given below. An equivalent system may be used with the written approval of the engineer.

Producer	Coat	Products	Dry Film Minimum Thickness (mils)	Minimum Time Between Coats (hours)
<u>Sherwin Williams</u> 1051 Perimeter Drive, Suite 710 Schaumburg, IL 60173 (847) 330-1562	Tie	Recoatable Epoxy Primer B67-5 Series/B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane , B65-650	2.0 to 4.0	NA
<u>Carboline</u> 350 Hanley Industrial St. Louis, MO 63144 (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
<u>Wasser Corporation</u> 4118 B Place NW Suite B Auburn, WA 98001	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

B.2 Color

The finished color for coating system for decorative fencing shall match Federal Color 37038 – Black

C Construction

Provide shop drawings in accordance to the requirements of standard spec 506.3.2. Shop drawings shall contain material sizes and types, weld sizes and locations, and all necessary details, dimensions, and information to allow fabrication of the fence in conformance with the requirements of the contract. Do not begin fabrication prior to shop drawing review and acceptance.

Provide a full sized painted 6-foot by 10-foot test panel for the fence. The test panel shall be ten feet long. The test panel shall be delivered to the job site within 60 days of the award of the contract. Unload and set up test panel in an area designated by the engineer. Do not begin fabrication of fences prior to the test panel acceptance.

During construction and at the time of delivery the engineer shall inspect the frame components. The engineer shall accept the product after the delivery is unloaded on the site. After the product is unloaded, the installation contractor will signify in writing that the fence was received in acceptable condition per the engineer's inspection. Any damage to the fence panels after the acceptable delivery will be the responsibility of the installation contractor.

All welding shall conform to the applicable requirements of standard spec 506. No field welding, field cutting, or drilling will be permitted without the approval of the engineer.

Take special care during construction to minimize the number and size of touch-up spots. Follow the manufacturer's recommendations for damaged area repairs. The engineer must approve the field paint appearance prior to final acceptance.

Provide the engineer with the name, address, and phone number of a representative of the fence fabricator for future coordination.

During handling, protect finish coating from damage. If damaged during handling the fencing may be rejected by the engineer or engineer may direct fabricator that the finish shall be repaired in accordance to the manufacturer's recommendations.

D Measurement

The department will measure Fence Decorative Bridge by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.03	Fence Decorative Bridge	LF

Payment is full compensation for fabricating painting, galvanizing and delivering test panel to site; fabricating, furnishing, delivering and unloading fence panels; installing fence posts and panels and hardware; and for preparing shop drawings, painting, galvanizing metal fence components.

110. Heavy Duty Silt Fence, Item SPV. 0090.04.

A Description

This special provision describes the delivery, installation, maintenance and removal of Heavy Duty Silt Fence. Install fence as directed by the engineer. Do not remove fence until directed by the engineer. If so directed by the engineer, remove silt at no additional costs. Silt shall be removed before the removal of the fence.

B Materials

Provide Heavy Duty Silt Fence consisting of a composite of woven wire fence fabric, posts, geotextile, sand bags and fasteners to be assembled by the contractor. Woven wire fence fabric shall be a standard field fence type a minimum of 4 feet high, a maximum mesh spacing of 6-inches and minimum 14-¹/₂ gauge wire.

Provide “studded tee” or “U” type metal posts with a minimum length of 8 feet –3 inches and a minimum weight of 1.3 lb/ft.

Provide geotextile fabric meeting the following requirements

Property	Unit	Test Method	Minimum Average Roll Value
Grab Tensile Strength	LB.	ASTM D4632	380
Grab Tensile Elongation	%	ASTM D4632	50
Puncture Strength	LB.	ASTM D4833	240
Trapezoid Tear Strength	LB.	ASTM D4533	145
Apparent Opening Size	U.S. Standard Sieve	ASTM D4751	170 (0.09 mm)
Permittivity	sec ⁻¹	ASTM D4491	0.7
Water Flow Rate	Gal/min/ft ²	ASTM D4491	50
UV Resistance after 500 hours	% strength retained	ASTM D4355	70

Furnish a manufacturer's Certified Report of Test or Analysis that the geotextile fabric delivered for use in the work meets the above requirements to the engineer at least 15 days prior to use in the work. Provide geotextile fabric bearing markings to clearly identify it with the applicable test report furnished to the engineer.

Supply material in 15'9" wide rolls and cut in half.

C Construction

Install the Heavy Duty Silt Fence as directed by the engineer. Space ties and anchors to adequately resist wave action.

D Measurement

The department will measure Heavy Duty Silt Fence by the linear foot measured along the fence, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.04	Heavy Duty Silt Fence	LF

Payment is full compensation for furnishing, assembling, erecting, maintaining, and removing the silt fence.

111. Pavement Marking Grooved Preformed Thermoplastic, Yield Line, Item SPV.0090.05; Pavement Marking Grooved Contrast Preformed Thermoplastic, Crosswalk, Item SPV.0090.06.

A Description

This special provision describes work in accordance to standard spec 646, and as hereinafter provided.

A.1

The markings must be a resilient white, yellow, or other color thermoplastic product, wherein every other shaped portion contains glass beads or abrasives with a minimum hardness of 7 (Mohs scale). The marking must be resistant to the detrimental effects of motor fuels, lubricants, hydraulic fluids, etc. Lines, legends and symbols are capable of being affixed to bituminous and/ or Portland cement concrete pavements by the use of the normal heat of a propane torch.

A.2

The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings shall have resealing characteristics, such that it is capable of fusing with itself and previously applied thermoplastic when heated with the torch.

A.3

The marking shall not have minimum ambient and road temperature requirements for application, storage, or handling.

B Materials

Must be composed of an ester modified resin resistant to degradation by motor fuels, lubricants etc. in conjunction with aggregates, pigments, binders abrasives, and glass beads which have been factory produced as a finished product, and meets the requirements of the current edition of the Manual on Uniform Traffic Control Devices for Streets and Highways. The thermoplastic material conforms to AASHTO designation M249-70 (98), with the exception of the relevant differences due to the material being supplied in a performed state.

B.1 Graded Glass Beads

B.1.1

The material must contain a minimum of thirty percent (30%) intermixed graded glass beads by weight. The intermixed beads shall be clear and transparent. Not more than 20 percent consists of irregular fused spheroids, or silica. The index of refraction shall not be less than 1.50.

B.1.2

The material must have factory applied coated surface beads and abrasives in addition to the intermixed beads at a rate of 1/2lb. (+/- 20%) per 11 sq ft. The surface beads and abrasives must be applied so that every other shaped portion contains glass beads, or abrasives with a minimum hardness of 7 (Mohs scale). These factory applied coated surface beads shall have the following specifications:

- 1) Minimum 80% rounds
- 2) Minimum refractive index of 1.5
- 3) Minimum SiO₂ content of 70%;
- 4) Maximum iron content of 0.1%;

Size Gradation		Retained, %	Passing, %
US Mesh	Um		
12	1700	0-2%	98 – 100%
14	1400	0 – 6%	94 – 100%
16	1180	1 – 21%	79 – 99%
18	1000	28 – 62%	38 – 72%
20	850	62 – 71%	29 – 38%
30	600	67 – 77%	23 – 33%
50	300	86 – 95%	5 – 14%
80	200	97 – 100%	0 – 3%

B.2 Pigments

B.2.1 White

The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected.

B.2.2 Red, Blue, and Yellow

The material shall be manufactured with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal free.

B.2.3 Other Colors

The pigments must be heavy-metal free.

B.3 Heating Indicators

The top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. These indents act as a visual cue during application that the material has reached a molten state so satisfactory adhesion and proper bead embedment has been achieved and a post-application visual cue that the installation procedures have been followed.

B.4 Skid Resistance

The surface of the preformed retroreflective materials, wherein every other shaped portion contains glass beads, or abrasives with a hardness of 7 (Mohs scale), shall upon application provide a minimum skid resistance value of 60 BPN when tested according to ASTM: E 303.

B.5 Thickness

The material must be supplied at a minimum thickness of 100 mils (2.29 mm).

B.6 Retroreflectivity

The preformed retroreflective marking materials upon application shall exhibit adequate and uniform nighttime retroreflectivity. The marking materials shall have the following retroreflectivity as measured using a Delta LTL 2000 or LTL-X Retroreflectometer.

White preformed reflective marking materials-minimum of $275 \text{ med-m}^{-2}\text{-lx}^{-1}$

Note: Initial retroreflection and skid resistance are affected by the amount of heat applied during installation. When ambient temperatures are such that greater amounts of heat are required for proper installation, initial retroreflection and skid resistance levels may be affected

B.7 Environmental Resistance

The material must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

B.8 Abrasives

The material must have a factory applied surface adhesives, wherein every other shaped portion contains glass beads, or abrasives with a minimum hardness of 7 (Mohs scale).

C Application

C.1

Location of Pavement Marking Grooved Preformed Thermoplastic, 4-Inch; 8-Inch; Yield Line and Crosswalk shall be approved by engineer prior to installations.

Apply preformed marking as the manufacturer specifies. Groove the pavement to receive the preformed material and the leading edge of all installations shall be heated and beveled; provide the engineer with the manufacturer's specifications. Cut groove to a depth of 100 mils +/- 10 mils. The engineer will evaluate the performance of the preformed marking as specified in standard spec 646.3.3.4.

C.2 Asphalt

The Materials shall be applied using the propane torch method recommended by the manufacturer. The material must be able to be applied without minimum requirements for ambient and road temperatures and without any preheating of the pavement to a specific temperature. The material must able to be applied without the use of a thermometer. The pavement shall be clean, dry and free of debris. Supplier must enclose application instructions with each box/package.

C.3 Portland Concrete

The same application procedure shall be used as described under section C2. However a compatible sealer may be applied before application to assure proper adhesion.

D Measurement

The department will measure the Pavement Marking Grooved Preformed Thermoplastic, 4-Inch; 8-Inch; Yield Line and Crosswalk by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.05	Pavement Marking Grooved Preformed Thermoplastic, Yield Line	LF
SPV.0090.06	Pavement Marking Grooved Contrast Preformed Thermoplastic, Crosswalk	LF

Payment is full compensation for locating, furnishing, and installation of pavement marking.

112. Concrete Pavement Joint Layout, Item SPV.0105.01.

A Description

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

B (Vacant)

C Construction

Plan and locate all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement to prevent uncontrolled cracking. Submit a joint layout design to the engineer before paving each intersection. Mark the location of all concrete pavement joints in the field. Follow the plan details for joints in concrete pavements making adjustments as required to fit field conditions.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Concrete Pavement Joint Layout	LS

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

The department will adjust pay for crack repairs as specified in standard spec 415.5.3.
NER 201010

113. Railing Steel Type C2 Galvanized B-5-381, Item SPV.0105.02; Railing Steel Type C2 Galvanized R-5-110, Item SPV.0105.03.

A Description

This special provision describes fabricating, galvanizing, painting and installing railing in accordance to standard specs 506, 513 and 517 and the plan details, as directed by the engineer, and as hereinafter provided.

B Materials

All materials for railing shall be new stock, free from defects impairing strength, durability and appearance. Railing assemblies shall be galvanized and receive a two-coat paint system. Bubbles, blisters and flaking in the coating will be a basis for rejection.

B.1 Coating System

B.1.1 Galvanizing

After fabrication, blast clean steel railing assemblies per SSPC-SP6 and galvanize according to ASTM A123. Vent holes shall be drilled in members as required to facilitate galvanizing and drainage. Location and size of vent holes are to be shown on the shop drawings. All burrs at component edges, corners and at holes shall be removed and sharp edges chamfered before galvanizing. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning. Lumps, projections, globules, or heavy deposits of galvanizing, which will provide surface conditions that when painted, will produce unacceptable aesthetic and/or visual qualities, will not be permitted.

B.1.2 Two-Coat Paint System

After galvanizing, paint all exterior surfaces of steel railing assemblies and inside of rail elements at field erection and expansion joints as hereinafter provided. All galvanized surfaces to be painted shall be cleaned per SSPC-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter and other contaminants. The cleaned surface shall then be brush blast cleaned per SSPC-SP16 to create a slight angular surface profile per manufacturer's recommendation for adhesion of the tie coat. Blasting shall not fracture the galvanized finish or remove any dry film thickness. After cleaning, apply a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface, per manufacturer's recommendations. The tie coat shall etch the galvanized rail and prepare the surface for the top coat. Apply a top coat per manufacturer's recommendations, matching the specified color shown on the plans. Use a preapproved top coat that is resistant to the effects of the sun and is suitable for a marine environment. The tie and top coats should be of contrasting colors, and come from the same manufacturer.

Ensure that the paint manufacturer reviews the process to be used for surface preparation and application of the paint coating system with the paint applicator. The review shall include a visit to the facility performing the work if requested by the paint manufacturer. Provide written confirmation, from the paint manufacturer to the engineer, that the review has taken place and that issues raised have been addressed before beginning coating work under the contract.

Use one of the qualified paint manufacturers and products given below. An equivalent system may be used with the written approval of the engineer.

Manufacturer	Coat	Products	Dry Film Minimum Thickness (mils)	Min. Time¹ Between Coats (hours)
<u>Sherwin Williams</u> 1051 Perimeter Drive Suite 710 Schaumburg, IL 60173 (847) 330-1562	Tie	Recoatable Epoxy Primer B67-5 Series / B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
<u>Carboline</u> 350 Hanley Industrial St. Louis, MO 63144 (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Tie	Carboguard 60	4.0 to 6.0	10
	Tie	Carboguard 635	4.0 to 6.0	1
	Top	Carbothane 133 LH(satin)	4	NA
<u>Wasser Corporation</u> 4118 B Place NW Suite B Auburn, WA 98001 (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA
<u>PPG Protective and Marine Coatings</u> P.O. Box 192610 Little Rock, AR 72219-2610 (414) 339-5084	Tie	Amercoat 399	3.0 to 5.0	3
	Top	Amercoat 450H	2.0 to 4.0	NA

¹ Time is dependent on temperature and humidity. Contact manufacturer for more specific information.

B.1.3 Color

The finished color for coating system for Railing Steel Type C2 Galvanized shall match Federal Color 37038 – Black.

B.2 Shop Drawings

Submit shop drawings showing the details of railing construction. Show the railing height post spacing, rail location, weld sizes and locations and all dimensions necessary for the construction of the railing. Show location of shop rail splices, field erection joints and expansion joints. State the name of the paint manufacturer and the product name of the tie coat and top coat used along with the color. State the size and material type used for all components. Also show the size and location of any vent or drainage holes provided.

C Construction

C.1 Delivery, Storage and Handling

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and conditions of materials is in conformance with these specifications. If coating is damaged, contractor shall repair or replace railing assemblies to the approval of the engineer at no additional cost to the owner. Carefully store the material off the ground to ensure proper ventilation and drainage. Exercise care so as not to damage the coated surface during railing installation. No field welding, field cutting or drilling will be permitted without the approval of the engineer.

C.2 Touch-up and Repair

For minor damage caused by shipping, handling or installation to coated surfaces, touch-up the surface in conformance with the manufacturer's recommendations. If damage is excessive, the railing assembly shall be replaced at no additional cost to the owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

D Measurement

The department will measure Railing Steel Type C2 Galvanized (Structure Number) as a single lump sum unit for each structure where railing is 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.0105.02	Railing Steel Type C2 Galvanized B-5-381	LS
SPV.0105.03	Railing Steel Type C2 Galvanized R-5-110	LS

Payment is full compensation for fabricating, galvanizing, painting, transporting, and installing the railing, including any touch-up and repairs.

114. Railing Steel Type C2A Galvanized Pedestrian R-5-111, Item SPV.0105.04; Railing Steel Type C2B Galvanized Pedestrian R-5-112, Item SPV.0105.05; Railing Steel Type C2C Galvanized Pedestrian R-5-113, Item SPV.0105.06.

A Description

This special provision describes fabricating, galvanizing, painting and installing railing in accordance to standard specs 506, 513 and 517 and the plan details, as directed by the engineer, and as hereinafter provided.

B Materials

All materials for railing shall be new stock, free from defects impairing strength, durability and appearance. Railing assemblies shall be galvanized and receive a two-coat paint system. Bubbles, blisters and flaking in the coating will be a basis for rejection.

B.1 Coating System

B.1.1 Galvanizing

After fabrication, blast clean steel railing assemblies per SSPC-SP6 and galvanize according to ASTM A123. Vent holes shall be drilled in members as required to facilitate galvanizing and drainage. Location and size of vent holes are to be shown on the shop drawings. All burrs at component edges, corners and at holes shall be removed and sharp edges chamfered before galvanizing. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning. Lumps, projections, globules, or heavy deposits of galvanizing, which will provide surface conditions that when painted, will produce unacceptable aesthetic and/or visual qualities, will not be permitted.

B.1.2 Two-Coat Paint System

After galvanizing, paint all exterior surfaces of steel railing assemblies and inside of rail elements at field erection and expansion joints as hereinafter provided. All galvanized surfaces to be painted shall be cleaned per SSPC-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter and other contaminants. The cleaned surface shall then be brush blast cleaned per SSPC-SP16 to create a slight angular surface profile per manufacturer's recommendation for adhesion of the tie coat. Blasting shall not fracture the galvanized finish or remove any dry film thickness. After cleaning, apply a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface, per manufacturer's recommendations. The tie coat shall etch the galvanized rail and prepare the surface for the top coat. Apply a top coat per manufacturer's recommendations, matching the specified color shown on the plans. Use a preapproved top coat that is resistant to the effects of the sun and is suitable for a marine environment. The tie and top coats should be of contrasting colors, and come from the same manufacturer.

Ensure that the paint manufacturer reviews the process to be used for surface preparation and application of the paint coating system with the paint applicator. The review shall include a visit to the facility performing the work if requested by the paint manufacturer. Provide written confirmation, from the paint manufacturer to the engineer, that the review has taken place and that issues raised have been addressed before beginning coating work under the contract.

Use one of the qualified paint manufacturers and products given below. An equivalent system may be used with the written approval of the engineer.

Manufacturer	Coat	Products	Dry Film Minimum Thickness (mils)	Min. Time¹ Between Coats (hours)
<u>Sherwin Williams</u> 1051 Perimeter Drive Suite 710 Schaumburg, IL 60173 (847) 330-1562	Tie	Recoatable Epoxy Primer B67-5 Series / B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
<u>Carboline</u> 350 Hanley Industrial St. Louis, MO 63144 (314) .644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Tie	Carboguard 60	4.0 to 6.0	10
	Tie	Carboguard 635	4.0 to 6.0	1
	Top	Carbothane 133 LH(satin)	4	NA
<u>Wasser Corporation</u> 4118 B Place NW Suite B Auburn, WA 98001 (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA
<u>PPG Protective and Marine Coatings</u> P.O. Box 192610 Little Rock, AR 72219-2610 (414) 339-5084	Tie	Amercoat 399	3.0 to 5.0	3
	Top	Amercoat 450H	2.0 to 4.0	NA

¹ Time is dependent on temperature and humidity. Contact manufacturer for more specific information.

B.1.3 Color

The finished color for coating system for Railing Steel Type C2 Galvanized Pedestrian shall match Federal Color 37038 – Black.

B.2 Shop Drawings

Submit shop drawings showing the details of railing construction. Show the railing height post spacing, rail location, weld sizes and locations and all dimensions necessary for the construction of the railing. Show location of shop rail splices, field erection joints and expansion joints. State the name of the paint manufacturer and the product name of the tie coat and top coat used along with the color. State the size and material type used for all components. Also show the size and location of any vent or drainage holes provided.

C Construction

C.1 Delivery, Storage and Handling

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and conditions of materials is in conformance with these specifications. If coating is damaged, contractor shall repair or replace railing assemblies to the approval of the engineer at no additional cost to the owner. Carefully store the material off the ground to ensure proper ventilation and drainage. Exercise care so as not to damage the coated surface during railing installation. No field welding, field cutting or drilling will be permitted without the approval of the engineer.

C.2 Touch-up and Repair

For minor damage caused by shipping, handling or installation to coated surfaces, touch-up the surface in conformance with the manufacturer's recommendations. If damage is excessive, the railing assembly shall be replaced at no additional cost to the owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

D Measurement

The department will measure Railing Steel Type C2A Galvanized R-5-111, Railing Steel Type C2B Galvanized R-5-112, Railing Steel Type C2C Galvanized R-5-113 as a single lump sum unit for each structure where railing is 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.0105.04	Railing Steel Type C2A Galvanized Pedestrian R-5-111	LS
SPV.0105.05	Railing Steel Type C2B Galvanized Pedestrian R-5-112	LS
SPV.0105.06	Railing Steel Type C2C Galvanized Pedestrian R-5-113	LS

Payment is full compensation for fabricating, galvanizing, painting, transporting, and installing the railing, including any touch-up and repairs.

115. Open Drain Drip Plate, Item SPV.0105.07.

A Description

This special provision describes furnishing and installing an open drain drip plate on Structure B-5-381.

B Materials

Fabricate the open drain drip plate out of a non-corrosive material, including, but not limited to, reinforced thermosetting resin or stainless steel, that is compatible with the stainless steel screws and silicone caulk, used to connect and seal the drip plate in place.

C Construction

Fabricate and install the open drain drip plate in accordance to the plan details, the fabricator's approved shop drawings, and as directed by the engineer.

D Measurement

The department will measure Open Drain Drip Plate as a single complete lump sum unit of work, completed in accordance to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.07	Open Drain Drip Plate	LS

Payment is full compensation for fabricating, furnishing and installing the open drain drip plate.

116. Pedestrian Access Cover Plate, Item SPV.0105.08.

A Description

This special provision describes furnishing and installing a cover plate on B-5-381 as shown on the plans, and as hereinafter provided.

B Materials

Furnish galvanized steel plates and studs that have been fabricated from ASTM A709 grade 36 steel.

C Construction

Install cover plate in accordance to the plan details, the manufacturer's and supplier's approved shop drawings, and as directed by the engineer.

D Measurement

The department will measure Pedestrian Access Cover Plate as a single lump sum unit of work, completed in accordance to this contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.08	Pedestrian Access Cover Plate	LS

Payment is full compensation for furnishing and installing the cover plate.

117. Traffic Control for the Fox River Recreational Vehicles, Item SPV.0105.09.

A Description

While maintaining Fox River access through the work zone for recreational vehicles (boats, snowmobiles, etc.), furnish, place, move, and maintain sixteen 7-inch diameter buoys and signs to provide traffic control for Fox River recreational vehicles. Buoys and signs shall be used to delineate the navigable channel for recreational vehicles through the construction site as shown on the plans and directed by the engineer.

B Materials

For signs, conform to standard spec 637.2 and standard spec 643.2.

On the 7-inch diameter buoys, provide red flashing lights operating at 30 flashes per minute.

Provide materials suitable to securely fasten signs and buoys.

C Construction

Adhere to conditions in the Waterway Marker Permit, approved by the Wisconsin Department of Natural Resources on March 12, 2013. A copy of the buoy permit is available from the regional office by contacting Andrew Fulcer at (920) 492-5664.

As provided in the plan, securely place buoys and signs prior to constructing or placing a hazardous feature in Fox River. Do not remove signs until the removal from Fox River of hazardous features that are temporary.

Boat excluded buoy and hazard warning buoy, type and requirements shall conform to the Bureau of Law Enforcement, Department of Natural Resources Publication PUB-LE-317-92, as shown on the plans and as hereinafter provided. This work also includes providing a temporary support system for the end of the safety cable attached to a stable feature, such as the pier of an existing or proposed structure.

Maintain Fox River access through the work zone for recreational vehicles at all times.

Two calendar weeks in advance of setting girders for bridge B-5-381 over the waterway, notify the maintaining authority for boat landings on the Fox River upstream of the STH 96 crossing, which is Brown County maintained. Contact Marvin Hanson, (920) 448-6242.

D Measurement

The department will measure Traffic Control for Fox River Recreational Vehicles as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.09	Traffic Control for the Fox River Recreational Vehicles	LS

Payment is full compensation for furnishing, placing, fastening, moving, and maintaining traffic signs, danger buoys, safety cable and attachments and similar control devices; for removal of “Bridge Work Ahead” signs; for inspection with the engineer of installations to remain after construction, including necessary repairs and maintenance; and for maintaining recreation vehicle access through the work zone.

118. Temporary Haul Road Access for Structure Construction, Item SPV.0105.10.

A Description

Construct a temporary haul road from the Fox River and to the east through the Plum Creek wetland to facilitate construction of the bridge structure, as needed to transport equipment and materials, in accordance to the stipulations of the Section 404 permit. This item provides for construction, and maintenance of the temporary haul road throughout construction and for removing the temporary haul road after construction.

B Materials

Obtain approval of the engineer for all materials and conform to the pertinent requirements of the standard specifications. Provide clean virgin materials if stone is used; salvaged or recycled materials are not allowed.

C Construction

Wetlands are present throughout a significant portion of the area within the limits of this project and are identified in the plans. Operations, including constructed features, storage of equipment and materials, and stockpile of excavation from pier footings, shall occur only in permitted areas covered by the Section 404 permit, as shown in the plan. If the contractor determines additional areas for stockpiling or storage is required, the materials and/or equipment shall be hauled to another location outside the wetland areas. Address temporary erosion control in the erosion control implementation plan.

At least 14 days prior to the pre-construction meeting, submit a plan to the DNR for approval showing proposed dimensions within the permitted wetland boundaries, materials, method and timetable for construction of the temporary haul roads, and their removal.

The wetland soils will not be stripped before constructing the haul road. Do not grub trees that must be removed in order to construct the haul road. Geotextile fabric will be placed over the wetland vegetation and wetland soils prior to placing the materials to construct the haul road. Construct the temporary haul roads to obtain a usable travel way for delivery of equipment and materials.

Provide necessary temporary erosion control and culverts along the temporary haul road. Thoroughly remove all temporary haul road materials. If necessary, excavate materials below existing ground as necessary to backfill with materials contiguous to the area. Match existing depth of all organic material.

D Measurement

The department will measure Temporary Haul Road Access for Structure Construction as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.10	Temporary Haul Road Access for Structure Construction	LS

Payment is full compensation for any additional agency coordination and/or permitting; for furnishing all materials; for constructing and maintaining the temporary haul road; for removing temporary haul road; for providing, installation and removal of temporary erosion control and culverts.

119. Temporary River Access for Structure B-5-381, Item SPV.0105.11; Temporary River Access for Structure B-5-736, Item SPV.0105.12.

A Description

Construct temporary accesses within the Fox River to construct piers 2-6 for Structure B-5-381 and to remove Structure B-5-736, as needed to transport equipment and materials, in accordance to the stipulations of the Section 404 permit. Said access consists of causeways within the limits of the Fox River and connected to the east and west banks of the Fox River. This item provides for the construction and maintenance of the shoreline access and causeways, removal of the causeway, and the restoration of the site.

B Materials

Obtain approval of the engineer for all materials and conform to the pertinent requirements of the standard specifications.

Provide clean virgin materials for the stone; salvaged or recycled materials are not allowed.

C Construction

Do not place materials within the limits of the Fox River between March 1 and June 15.

Operations, including constructed features, and storage of equipment and materials shall occur only in permitted areas covered by the Section 404 permit, as shown in the plan.

Address temporary erosion control, and erosion control to remain after construction, in the erosion control implementation plan.

At least 14 days prior to the pre-construction meeting, submit a plan to the DNR for approval showing proposed dimensions, materials, method and timetable for construction of the shoreline access road and causeway, and removal of the causeway.

The length of time the causeway is in place shall be limited as described under "Prosecution and Progress".

To limit siltation in the Fox River, use clean stone predominately 6-inches or greater in at least one dimension with the fill placed over geotextile fabric and/or geogrid. Any stone to be used should be as free of fines as possible. Place geotextile fabric between the clean stone fill and the top driving surface of the causeway. Construct the shoreline access and causeway to accommodate the delivery of equipment and materials. Do not grub trees that must be removed in order to construct the causeway.

Use intermittent openings in the causeway to allow for continued river flow without causing excessive downstream scouring. Provide a minimum of one 18-inch diameter equalization pipe perpendicular to the causeway at maximum spacing of 50 feet.

The contractor is responsible for the design and stability of causeway.

Remove the causeway in such a manner that provides the least disturbance to the riverbed. Remove the top driving surface first and then the remainder of the causeway material. Place erosion mat over disturbed overbank areas. Include in the ECIP installation and removal procedures including restoration plan for the temporary causeway area. Construction of a causeway and any associated materials for the causeway construction is incidental to structure bid items.

If a barge is used, place Warning Lights Type A every 25 feet around the perimeter of the barge.

Water level is subject to change. Make a determination of water levels that will exist during construction.

Provide seeding, topsoil, and erosion control for the shoreline access.

Though not expected to be necessary, if dredging is desired to facilitate means and methods of construction, obtain all necessary regulatory agency approvals.

Construction activities shall allow sufficient clearances for the navigation of boat and snowmobile traffic along the Fox River. As provided under the item "Traffic Control for the Fox River Recreational Vehicles", install devices for maintaining boat and snowmobile traffic during and after construction as shown in the plans, including buoys and signing, prior to the start of any work in the river.

When removing the causeway, restore the Fox River as closely as possible to its natural state. Thoroughly remove all causeway materials from the Fox River.

D Measurement

The department will measure Temporary River Access for Structure B-5-381 and Temporary River Access for Structure B-5-736 as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.11	Temporary River Access for Structure B-5-381	LS
SPV.0105.12	Temporary River Access for Structure B-5-736	LS

Payment is full compensation for any additional agency coordination and/or permitting; for furnishing all materials; for constructing and maintaining the shoreline access and causeways; for the removal of all causeway materials from the Fox River; for installation and removal of temporary erosion control along the shoreline access; for installation of erosion control to remain after construction along the shoreline access; for shaping the shoreline access to the original slope, and for seeding and topsoiling.

120. Navigation Lights and Aids, Item SPV.0105.13.

A Description

This special provision describes furnishing and installing a new navigation lights and aids system for Structure B-5-381 maintaining the existing system as necessary and providing a temporary system. This work includes furnishing and installing all conduit, wiring, fittings, junction boxes and pull boxes, lights and incidentals necessary to provide a complete working system.

This work includes, but is not limited to, the following:

- Furnishing and installing four bracket mounted red pier lights.
- Furnishing and installing two swivel type green center channel lights.
- Furnishing and installing all wire, conduit, fittings, brackets and incidentals from the abutment wall junction boxes to each navigation light fixture; including wire from the power source cabinet.
- Removing and disposing of the existing fixtures and conduits.
- Testing for proper operation.
- Maintaining an operational navigational light system by using a combination of the existing system, proposed system and, if required, a temporary system at all times.

A.1 Submittals

Submit the following for each component of the Navigation Lights and Aids system:

- Manufacturer's shop drawings.
- Product data.
- Manufacturer's installation instructions.
- Operation and maintenance data.
- Plans for temporary lighting system if it is used.

A.2 References

- AASHTO Standard Specifications For Movable Highway Bridges.
- 1988 (2.1.8 Audible Navigation Signals and Navigation Lights).
- Code of Federal Regulations CFR 33 Navigation and Navigable
- Waters Pan 118 Bridge Lighting and Other Signals.
- UL 1104 - Marine Navigation Lights.

B Materials

B.1 General

Provide a complete navigation hazard lighting system operating at 120 VAC and complying with USCG CFR 118.80(b). Furnish all clearance lights with shockproof LED lamps and surge suppressors. Lamps shall consist of 48 individual LED beams arranged in four tiers in an optically clear elastomer medium. The viewing angle of the individual LED beams shall not be less than 22 degrees for red, and 20 degrees for green. The MTBF rating of the LED's shall be 100,000 hours. Provide lamp lens of UV polycarbonate. Wattage consumption shall not exceed 1.8 watts for red, and 1.44 watts for green. Candela output shall be not less than 78 candela for red, and 270 candela for green. Provide lamps with integral surge suppression with a clamping voltage of not less than 380 VAC at 2 amps. Provide clear silicon-filled lamps that have been field-tested and documented for not less than six months continuous service in severe climate.

B.2 Pier Lights

Furnish and install unpainted housings of cast aluminum construction with a 1-inch threaded conduit opening at the bottom, equipped with a red 180°, standard marine fresnel type, rigid, heat resistant glass lens, 7 to 8 inch diameter, ID. Furnish manufacturer's recommended wall mounting bracket and 90° post. Furnish all stainless steel closure bolts,

lens tie rods, and attachment hardware. Use only marine type junction boxes. All joints, including lid shall be sealed with weatherproof gaskets. All fastenings shall be tamper resistant. Access cover shall require a special wrench.

B.3 Center Channel Lights

Furnish and install unpainted housings of cast aluminum with cushioned lenses, weatherproof gasketed joints and large service access door equipped with 360°, standard marine molded green single-piece Fresnel type, rigid, heat resistant glass, 7 to 8 inch diameter. Furnish all stainless steel closure bolts, lens tie rods, and attachment hardware.

Ensure swivel assembly is cast bronze housing and bracket with stainless steel pivot, watertight "O" ring seal, bronze bearings, cable entrance fitting, and #35 stainless steel service chain rated for 225 pounds. Use a hanger stem 1 1/2 or 2-inch galvanized pipe as recommended by the manufacturer with anti-swing brake and automatic lock. Do not use solid wire conductors.

B.4 LED Lamps

Fit all pier and clearance lights with shockproof LED lamps and surge suppressors. Provide red lamps for red lenses and green lamps for green lenses. Provide clear silicone-filled lamps that hold each internal LED stationary to all other internal components. Provide lamps that are clear silicone-filled material free of air bubbles and impurities. Provide LED lamps that consist of 48 individual LED beams arranged in four tiers in an optically clear elastomer medium (silicone-filled). Provide viewing angles of the individual LED beams are not to be less than 22 degrees for red, and 20 degrees for green. Provide MTBF ratings of the LEDs of not less than 100,000 hours. Provide UV polycarbonate lamp lenses. Wattage consumption should not exceed 1.8 watts for red, and 1.44 watts for green. Candela output to be not less than 78 candela for red, and 270 candela for green. Provide lamp integral surge suppression with a clamping voltage of not less than 380 VAC at 2 amps. Provide certification that clear silicon-filled lamps have been field-tested and documented for not less than six months continuous service in severe climate.

B.5 Conduits and Junction Boxes

Furnish and install rigid galvanized steel conduit to complete the system. Hot-dip galvanize rigid steel conduit, conduit bends, elbows, couplings, and nipples.

Minimum conduit size shall be 1-inch, unless noted otherwise.

Provide liquid-tight flexible steel conduit for connections to devices that may require removal or adjustments. Use interlocking flexible galvanized steel conduit with a special polyvinyl chloride covering extruded over the flexible conduit to make the conduit liquid-tight, resistant to moisture, oil, chemicals and corrosive fumes.

All conduit fittings shall be NEMA FB 1, compatible with conduit/tubing materials.

Locknuts shall be steel or malleable iron. Conduit terminations shall consist of double locknuts and insulating bushings. Provide threaded type fittings for rigid conduit. Set screw type fittings are not permitted. Use steel or malleable iron compression type flexible conduit connectors with an insulated throat and "O" ring assembly. Provide a sealing bushing at ends of conduit.

Provide expansion fittings at all expansion joints and/or where required to compensate for expansion and contraction in long conduit runs, with bonding jumpers as required.

Furnish and install NEMA 4X rated junction boxes where required.

B.5 Spare Parts

Provide a minimum of two red and two green replacement LED lamps for lights.

C Construction

C.1 Lights

Maintain an operational navigation light system at all times. This system can be the existing system, a temporary system, the permanent system or a combination thereof.

Provide all materials and perform all work for a temporary system in conformance to the latest edition of the National Electrical Code, and Coast Guard requirements and regulations. Maintenance of a temporary system is required until the permanent system is fully operational. Include all costs associated with this requirement in the unit price for this item. No separate payment will be made.

Install bottom of clearance lights to match the elevations of the bottom of the existing lights.

On construction barges place a steady burn white light on each corner of the barge visible for a minimum of 3 nautical miles. Place the light as high as practical above the water level.

C.2 Conduit and Wiring

Unless otherwise specified in the plans, install conduit in accordance to NECA standard practice. Install nonmetallic conduit in accordance to manufacturer's instructions.

Arrange supports to prevent misalignment during wiring installation. Support conduit using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers. Do not use plastic straps or plastic hangers. Fasten conduit supports to the structure and surfaces under provisions of supporting devices. Attachment to steel or concrete shall be by galvanized or stainless steel straps, hangers held at not less than two points by galvanized, stainless steel bolts, or lag screws. Concrete inserts shall be type 316 stainless steel, Unistrut or approved equal. Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports.

Provide pull boxes or junction boxes wherever necessary to facilitate the installation of the conductors, pull boxes are used for pulling conductors through. No splicing or terminations are permitted. Junction boxes are used for field connections of conductors.

Do not use condulets for pulling more than 10 conductors or for making such turns in conduit runs or for branching conductors, except for indoor wiring to lighting fixtures and receptacles. Use bronze or alloy expansion fittings at any point where a conduit crosses an expansion joint, or where movement between adjacent sections of conduit can be expected.

Use flexible conduit, fully interlocked, only for the connection of devices that must be periodically adjusted in position. Do not use flexible conduit extensions that exceed 2 feet in length. Equip all flexible conduit with bonding jumpers. Install flexible conduit so as to drain away from the device it serves.

Route exposed conduit parallel and perpendicular to walls. Route the conduit in and under slab from point-to-point.

Connect conduit sections to each other with threaded couplings. Install conduits to be continuous and watertight between boxes or equipment. Protect conduits at all times from the entrance of water and other foreign matter by capping or well plugging overnight when the work is temporarily suspended.

Do not set conduits mounted on the steel work closer than 1 1/2-inch clear from the supporting structure to prevent accumulation of dirt. Space parallel horizontal conduit 1 inch apart and securely clamp to the steel work to prevent rattling and wear. The clamps, in general, shall consist of U-bolts attached to angle or channel iron supports bolted to the members. The spacing of the clamps shall not exceed 6 feet of spacing per NEC 346 and 347, whichever is less.

Cut conduit square using saw or pipe cutter; de-burr cut ends. Bring conduit to shoulder of fittings; fasten securely. Long running threads will not be permitted. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting.

Allow joint to cure for 20 minutes, minimum. Embedded conduit stub-outs shall be provided with threaded 316 stainless steel.

Use conduit hubs to fasten conduit to sheet metal boxes. Install no more than equivalent of three 90-degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use factory elbows for bends in metal conduit larger than 2 inch. All field bends shall be long sweep, free from kinks, and of such easy curvature as to facilitate the drawing in of conductors without injury to the conductors. Make conduit runs with as few couplings as standard lengths will permit.

Avoid moisture traps; provide junction box with drain fitting at low points in conduit system. Install all conduits so that they will drain properly and provide drainage tees at low points where required. Provide suitable pull string in each empty conduit except sleeves and nipples. Use suitable caps to protect installed conduit against entrance of dirt and moisture. Carefully clean all conduits before and after installation. Upon completion of the conduit installation, clear each conduit with a tube cleaner equipped with a mandrel of a diameter not less than 80 percent of the nominal inside diameter of the conduit, and draw in the conductors.

D Measurement

The department will measure Navigation Lights and Aids, completed in accordance to this contract and accepted, as a single lump sum unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.13	Navigation Lights and Aids	LS

Payment is full compensation for furnishing and installing navigational lights and aids; providing a navigational system of lights and aids at all times; wiring the existing, temporary and new system.

121. Meter Breaker Pedestal Black at CTH DD Roundabout, Item SPV.0105.14; Turner Street Roundabout, Item SPV.0105.15.

A Description

This work shall be in accordance to the requirements of standard spec 656, the plans, standard detail drawings, and as hereinafter provided.

B Materials

Amend standard spec 656.2.3, paragraph (1) to read as follows:

Furnish an approved service having a meter breaker pedestal, 22,000-AIC circuit breakers unless the local utility requires otherwise, grounding electrodes and connections, conduit and fittings, and all necessary conductors and equipment required by the WSEC and the utility for a service connection. Use circuit breakers with an amperage capacity 50 A, unless specified otherwise in the contract. When the meter breaker pedestal is energized, install an approved meter seal at all access points on the meter trough. Furnish the meter breaker pedestal with a manufacturer applied black finish. After purchase paint finishes will not be accepted.

C Construction

In accordance to the requirements of standard spec 656.3.

D Measurement

The department will measure Meter Breaker Pedestal Black (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.0105.14	Meter Breaker Pedestal Black at CTH DD Roundabout	LS
SPV.0105.15	Meter Breaker Pedestal Black at Turner Street Roundabout	LS

Payment is full compensation for providing and installing the pedestal, manual bypass meter socket if required, conduit and fittings, circuit breakers, grounding electrodes, and for connections.

122. Electrical Service Meter Breaker Pedestal Black at CTH DD Roundabout, Item SPV.0105.16; Turner Street Roundabout, Item SPV.0105.17.

A Description

This work shall be in accordance to the requirements of standard spec 656, the plans, standard detail drawings, and as hereinafter provided.

B Materials

In accordance to the plans and standard spec 656.2 and as hereinafter provided:

Amend standard spec 656.2.3, Meter Breaker Pedestal Service, by adding the following paragraphs:

- (2) Furnish meter pedestal with provisions for a minimum of two double-pole breakers in a water-tight outdoor rated enclosure. Furnish and install breakers as required.
- (3) Furnish stainless steel square tubing, concrete masonry and steel reinforcement as the plans show for rigidly mounting the meter pedestal.
- (4) Furnish the meter breaker pedestal with a manufacturer applied black finish. After purchase paint finishes will not be accepted.

C Construction

Amend standard spec 656.3.2, Service Lateral, paragraph (1) to read as follows:

- (1) The local utility shall furnish and install a 100A, 120/240 volt AC, single phase, 3-wire underground electrical service lateral. Arrange and assume responsibility for the timely installation of the service lateral by the utility. The lateral shall be terminated at a meter pedestal as the plans show.

Submit the application to the utility for all required electrical services. Pay the utility installation costs promptly and seek reimbursement through the "Electrical Service Lateral" administrative contract bid item.

Arrange for future monthly energy usage billing to be established in the name of the appropriate entity. Contact the Village of Wrightstown for this information.

D Measurement

The department will measure Electrical Service Meter Breaker Pedestal Black (Location) as a single lump sum unit of work for each service, 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.0105.16	Electrical Service Meter Breaker Pedestal Black at CTH DD Roundabout	LS
SPV.0105.17	Electrical Service Meter Breaker Pedestal Black at Turner Street Roundabout	LS

Payment is full compensation for furnishing and installing all materials, excavation, backfill, and for disposal of surplus materials.

123. Seismograph Urban, Item SPV.0105.18.

A Description

This special provision describes furnishing a seismograph(s) for an urban environment and employing trained operators to monitor building vibration, and submittal of all required documentation.

B Material

Use seismographs that are in accordance to subsection SPS 307.43 of the Wisconsin Administrative Code, and are continuous strip recorders supplied with all the accessories necessary for making seismographic observations.

C Construction

Monitoring procedures shall be in accordance to subsection SPS 307.44 of the Wisconsin Administrative Code and as follows: Take seismograph readings prior to construction activities to establish an ambient index. Place a seismograph to monitor a 10 minute sample period per location per major construction activity per day and as directed by the engineer. At a minimum utilize one seismograph. If more than one major construction activity per day is taking place, multiple seismographs may be required. Place the seismograph on a stable surface within 3 feet of the building nearest to the construction operation.

If construction activities generate ground vibration in excess of the Peak Particle Velocity Limits as shown in subsection SPS 307.44 of the Wisconsin Administrative Code, stop the construction operation in progress and implement alternate construction methods to produce results within the allowable Peak Particle Velocity Limits.

Provide to the engineer all documentation information and seismograph report data within 10 days of completing work on the project.

D Measurement

The department will measure Seismograph Urban 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.0105.18	Seismograph Urban	LS

Payment is full compensation for furnishing and operating a seismograph(s), any operator(s), producing reports, and for furnishing all other incidentals necessary to complete the work.

124. Construction Staking Temporary Causeway A, Item SPV.0105.19; Causeway B, Item SPV.0105.20; Causeway C, Item SPV.0105.21; Causeway D, Item SPV.0105.22.

A Description

Perform all construction staking required to establish the horizontal and vertical position for the proposed temporary causeway in the Fox River.

B (Vacant)

C Construction

Follow the requirements of standard spec 650.3.1.

Set initial construction stakes or reference marks to establish approximate causeway plan centerline and reference elevations. During causeway construction, set and maintain stakes and grade as necessary to support methods of causeway construction operations.

When temporary spans are being set, record low chord elevation and position at all four corners of each temporary span. Submit survey data to engineer within 24 hours of recording in station/offset/elevation for verification of construction in compliance with the contractors causeway plan details and the minimum opening requirements specified in the plans.

D Measurement

The department will measure Construction Staking Temporary (Causeway) as a single lump sum unit of work for the temporary causeway, completed in accordance to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.19	Construction Staking Temporary Causeway A	LS
SPV.0105.20	Construction Staking Temporary Causeway B	LS
SPV.0105.21	Construction Staking Temporary Causeway C	LS
SPV.0105.22	Construction Staking Temporary Causeway D	LS

Payment is full compensation for locating and setting all construction stakes; for relocating and resetting damaged or missing construction stakes; and for recording low chord position and elevation on four corners of each temporary span.

(NER11-0207)

125. Wetland Restoration Survey, Item SPV.0105.23.

A Description

Perform work according to standard spec 650 and 105.6 and as hereinafter modified.

Standard spec 105.6 and standard spec 650 are modified to define the requirements for construction staking for this contract.

Replace standard spec 105.6.2 with the following:

Prior to using any mechanized equipment, the elevations of the wetland grade shall be checked by survey cross sections to determine the locations and extent of any settlement or displacement that has occurred during bridge construction.

All areas which are found by survey to have experienced settlement or displacement equal or greater than 0.25 feet shall be staked to reconstruct the pre-existing contours. An electronic digital terrain model of the wetland is available upon request.

The department may choose to perform quality assurance survey during construction. This quality assurance survey does not relieve the contractor of the responsibility for furnishing all survey work required under this contract.

Delete standard spec 650.1.

B (Vacant)

C Construction

Survey required under this item shall be in accordance to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and restore the existing wetland contours.

D Measurement

The department will measure Wetland Restoration Survey 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.0105.23	Wetland Restoration Survey	LS

Payment is full compensation for performing all survey work required to layout and construct work.

126. Water for Seeded Areas, Item SPV.0120.01.

A Description

This special provision describes furnishing, hauling and applying water to seeded areas as directed by the engineer, and as hereinafter provided.

B Materials

When watering seeded areas, use clean water, free of impurities or substances that might injure the seed.

C Construction

If rainfall is not sufficient, keep all seeded areas thoroughly moist by watering or sprinkling. Water for 30 days after seed placement or as the engineer directs. Apply water in a manner to preclude washing or erosion. The topsoil shall not be left un-watered for more than 3 days during this 30-day period unless the engineer determines that it is excessively wet and does not require watering. The equivalent of one inch of rainfall per week shall be considered the minimum.

D Measurement

The department will measure Water for Seeded Areas by volume by the thousand gallon units (MGAL), acceptably completed. The department will determine volume by engineer-approved meters or from tanks of known capacity.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0120.01	Water for Seeded Areas	MGAL

Payment is full compensation for furnishing, hauling, and applying the water.

127. Staining Concrete, Item SPV.0165.01.**A Description**

This work consists of staining the concrete at the Fox River overlook in a star pattern, supplying and applying an acid etched stain and sealer to concrete as shown in the plans.

B Materials

Stain shall be an acid etched stain with translucent colors specifically formulated for application to uncolored cured concrete.

Clear concrete sealer to be specifically formulated to be compatible with acid etched concrete.

Supply engineer manufacturer's technical data sheets and application instructions for colored stain.

Concrete curing paper shall conform to ASTM C171.

Products shall comply with the United States Clean Air Act for maximum Volatile Organic Compound (VOC) content.

C Construction

Staining concrete shall conform to ASTM D4260-05.

Concrete shall be a smooth finish.

Maintain an ambient temperature of between 50° and 90° F during application and at least 48 hours after application.

Liquid curing agents shall not be used on newly placed concrete. Contractor shall use new, unwrinkled curing paper.

Newly placed concrete shall be allowed to cure for a minimum of 14 days before application of stain.

Clean concrete of any foreign materials before staining.

Precautions shall be taken to avoid damage or contamination of all surfaces near the work zone. Protect completed stain work from moisture or contamination.

Keep all traffic off stained surfaces for a minimum of 12 hours.

A clear matte finish sealer that is compatible with the staining shall be applied 24 hours after staining. Keep all traffic off sealed concrete for a minimum of 24 hours.

Supply engineer with manufacturer's color charts showing full range of colors available. Use specified products in original, unopened containers with legible manufacturer's identification and information.

Store stain and sealer products in conditions recommended by the manufacturer.

Stain colors shall match Federal Colors: 20252, 30340 and 30450.

Prepare a 3' by 3' concrete test panel with the five specified colors. Individual stain colors shall be separated by a maximum 1/4 inch wide by 1/4 inch deep saw cut. When sample is approved by engineer it will become the standard of staining for the project.

Engineer shall direct contractor to location where test panel may be poured or stored if fabricated in the shop.

Remove test panel when directed by engineer.

D Measurement

The department will measure Staining Concrete by the square foot, acceptably completed and in place.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Staining Concrete	SF

Payment is full compensation for staining concrete, sealing concrete; and for furnishing all materials.

128. Stamped Concrete Sidewalk 4-Inch, Item SPV.0165.02.

A Description

This special provision describes the construction of stamped concrete for sidewalk in accordance to the standard spec 602, as shown on the plans, and as hereinafter provided.

B (Vacant)

C Construction

Construct stamped concrete sidewalk in accordance to standard spec 602 and as herein provided.

C.1 Placement

Uniformly apply liquid release agent onto the concrete while it is still in a plastic state to provide clean release of imprinting tools from the concrete surface without lifting imprint or tearing concrete.

While initially finished concrete is in plastic state, accurately align and place imprinting stamps. Monitor the setting up of the concrete. Once the concrete has set to the point it can be stamped, begin stamping. Uniformly pound or press imprint tools into concrete to produce required pattern and depth of imprint on concrete surface. Remove platform tools immediately. Hand texture and stamp edges and surfaces unable to be imprinted by stamp mats. Touch up imperfections such as broken comers, double imprints and surface cracks.

Stamp concrete consistently so that stamped concrete does not have a vertical elevation difference of ½ inch or depressions in concrete capable of causing ponding water or ice. For concrete hand stamp edges and surfaces that are unable to be imprinted by platform tools, use texture mats and single blade hand stamps to match platform tool stamping pattern. Finish imprinting to match pre-construction mock ups.

D Measurement

The department will measure Stamped Concrete Sidewalk (Inch) by the square foot, acceptably completed.

E Payment

The department will pay for plan quantities in accordance to standard spec 109.1.1.2 of the standard specifications at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.02	Stamped Concrete Sidewalk 4-Inch	SF

Payment for Stamped Concrete Sidewalk 4-Inch bid item is in accordance to standard spec 602.5.2.

(NER11-0630)

129. Mulch Shredded Bark, Item SPV. 0165.03.

A Description

This work consists of installing shredded bark mulch in planting beds as indicated in the plans.

B Materials

Shredded bark mulch shall be hardwood bark with no pieces being larger than 2" X 5" X 1". A sample of the mulch must be approved by the engineer before placing shredded bark mulch

C Construction

Place shredded bark mulch in planting areas and tamp gently to a finished depth of 3 inches. Take care in placing mulch to avoid damaging plant material.

D Measurement

The department will measure Mulch Shredded Bark by the square foot, acceptably completed and in place.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0165.03	Mulch Shredded Bark	SF

Payment is full compensation for furnishing all materials, labor, tools, equipment and incidentals; for removing excess materials as required for the installation of Mulch Shredded Bark.

130. Insulation Board 2-Inch, Item SPV.0165.04.

A Description

This special provision describes furnishing and installing insulation board.

B Materials

In accordance to Chapter 8.50.2 of the Standard Specifications for Sewer and Water Construction in Wisconsin (latest edition).

C Construction

Perform all construction in conformance with Chapter 4.17.2(a) of the Standard Specifications for Sewer and Water Construction in Wisconsin (latest edition).

D Measurement

The department will measure Insulation Board (Inch) by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.04	Insulation Board 2-Inch	SF

Payment is full compensation for furnishing and installing all labor, tools, equipment, materials, and incidentals necessary to complete the contract work.
(NER11-0207)

131. Quarry Stone Wall, SPV.0165.05.**A Description**

The work under this item shall consist of furnishing materials and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

B Materials

Materials furnished under this contract shall conform to the following requirements.

B.1 Backfill

All backfill material placed between the stone block face and existing embankment shall be Granular Backfill, Grade 1.

B.2 Wall Facing

Stone Blocks used for wall facing shall be durable limestone quarry blocks of approved quality. They shall be sound, hard, dense, resistant to the action of air and water, and free from seams, cracks, or other structural defects. Stone Blocks shall match height and width of blocks in the existing wall and shall have varying lengths. Approximate height is 8-inches to 12-inches and approximate width is 24-inches to 36-inches.

C Construction

The Quarry Stone Wall shall be constructed at the locations and to the dimensions shown on the plan and as directed by the engineer. Materials will be placed in the areas as indicated on the plans and as detailed in this specification.

All existing topsoil shall be excavated from the wall fill zone. Any unsuitable material at the wall base shall be excavated to a depth which provides a stable foundation. A leveling pad of Select Crushed Material shall then be constructed and compacted to bottom of wall elevation. The minimum thickness of the leveling pad shall be 6 inches. Geotextile Fabric, Type HR shall be placed beneath and behind the stone block facing units.

Backfill lifts shall be no more than 8 inches in thickness, and shall be benched into the existing embankment. Backfilling and compaction shall closely follow erection of each course of block facing units. At the end of each working day, the contractor shall provide good temporary drainage such that the backfill shall not become contaminated with runoff

soil or water if it should rain. No materials or large equipment shall be stockpiled or stored on top of the wall within 10 feet of the front face of the wall.

Backfill operations shall be conducted in such a manner as to prevent damage or misalignment shall be corrected at the contractor's expense as directed by the engineer.

The surrounding area located above and below the retaining wall site shall be restored to its original condition and to the finished details on the plans after construction of the wall.

D Measurement

The department will measure Quarry Stone Wall by the square foot of face on a vertical plane between the top of the leveling pad and a line indicating the top of wall as shown on the plans, acceptably completed. Unless directed by the engineer, 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.0165.05	Quarry Stone Wall	SF

Payment is full compensation for preparing the site, including all necessary excavation and disposal of surplus materials; supplying and placing quarry stones and geotextile fabric. Select crushed material and structure backfill will be paid for separately.

132. Remove and Salvage Rock Wall, Item SPV.0165.06.

A Description

This special provision describes removing the rock wall adjacent to STH 96 and salvaging the rock in accordance to plan details and hereinafter provided.

B Material

Provide mortar in accordance to standard spec 501.

Provide pipe underdrain conforming to standard spec 612.

C Construction

Remove concrete caps from columns, railings, and concrete coping in a manner to minimize damage to existing rock in the columns and retaining wall.

Saw existing wall as shown in the plans. Fill voids in the wall created by the sawing operation with mortar.

Extend existing weep drains with Pipe Underdrain 4-inch to match final grades. Cut the pipe to match the slope of the ground.

Carefully remove all material designated for salvage as shown in the plans to avoid damage.

Place rocks with a minimum dimension of 6 inches long by 6 inches wide in the designated stockpile location. Remove rocks with a dimension smaller than these dimensions in accordance of standard spec 204.

Stockpile materials in neat piles outside of construction limits at location coordinated with the property owner. Contact Charlie Demske, (920) 360-1981, five business days prior to removal of the wall to coordinate the stockpile location.

D Measurement

The department will measure Remove and Salvage Rock Wall by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.06	Remove and Salvage Rock Wall	SF

Payment is full compensation for salvaging and stockpiling rock wall materials; for removing concrete cap and coping; removal of railings; sawing the existing wall; for extending drains; and for all providing material necessary to complete the work.

133. Concrete 5-Inch Decorative, Item SPV.0180.01.

A Description

This special provision describes furnishing and installing colored broom finished concrete, complete and accepted in place, including sealer and samples in accordance to standard spec 602, the plans, details, and as provided herein.

B Materials

The concrete shall be grade A-S, A-T, A-IS A-IP or A-FA as specified in standard spec 501.3.1. All colored concrete shall originate from the same batch plant.

Expansion joint material shall be ½ inch asphaltic treated felt.

B.1 General

Concrete 5-Inch Decorative shall be installed in the scenic overlook area as indicated in the plans.

Provide mesh reinforcing in accordance to standard spec 505.

At least 15 working days prior to the start of colored concrete installation supply one 4-foot x 4-foot panel sample of the colored concrete with the proposed broom finish and troweled edge. The final color and finish is to be approved by the engineer prior to placement of any colored concrete in the field.

The accepted sample shall be the standard of finish for all colored concrete work within the project.

B.2 Color Admix

Use integral color admixture material specifically designed for coloring concrete.

Blend admix at plant per manufacturers specifications to achieve the indicated color. Color admixtures and colors include:

Federal Color 20252 – Reddish Brown
Federal Color 30340 – Tan
Federal Color 30450 – Buff

B.3 Curing Compound

The curing compound shall meet the specifications of ASTM C 1315 Type I Class A clear non-yellowing curing compound.

B.4 Finish

Finish shall be a medium brushed (broom) finish with a 6 inch smooth troweled finish as shown in the plans.

C Construction

Place ½ inch expansion felt between any other hard immovable surface and new concrete.

Concrete shall be placed by installers experienced colored, broom finished concrete.

Concrete pavement shall match the visual appearance of the approved sample. Concrete pavement not conforming to the color and finish of the approved sample shall be replaced at the contractor's expense.

D Measurement

The department will measure Concrete 5-Inch Decorative by the square yard of concrete pavement installed and acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Concrete 5-Inch Decorative	SY

Payment is full compensation for furnishing and installing the concrete, mesh reinforcing, curing compound, expansion material.

134. Broom Finish Concrete Pavement Crosswalk, Item SPV.0180.02.

A Description

This work consists of broom finishing and forming the specified pattern, as shown in the plans, into the concrete pavement at crosswalks at the locations shown in the plan.

B Materials

Concrete curing paper conforming to ASTM C171.

C Construction

Liquid curing agents shall not be used on newly placed concrete. Contractor shall use new, unwrinkled curing paper.

Finish surface in the pattern and dimensions as shown in the plans.

D Measurement

The department will measure Broom Finish Concrete Pavement Crosswalk by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.02	Broom Finish Concrete Pavement Crosswalk	SY

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

135. Geogrid Reinforcement, Item SPV.0180.03.

A Description

This special provision describes furnishing and installing geogrids for subgrade stabilization, base reinforcement, or pavement structure applications in accordance to the plans, standard spec 645, and as hereinafter provided.

B Materials

Provide geogrid that consists of either single or joined multiple layers of a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right angle orientation. The polymer shall consist of polyester, polypropylene, polyamide, or polyethylene. The grid shall maintain dimensional stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. Minimum geogrid width shall be 6.0 feet.

Provide geogrid that complies with the following physical properties:

Test	Method	Value ⁽¹⁾
Tensile Strength at 5% Strain, Both Principal Directions (lb/ft)	ASTM D 4595 ⁽²⁾	580 min.
Flexural Rigidity, Both Principal Directions (mg-cm)	ASTM D 1388 ⁽³⁾	150,000 min.
Aperture Area (in ²)	Inside Measurement ⁽⁴⁾	5.0 max.
Aperture Dimension (in)	Inside Measurement ⁽⁴⁾	0.5 min.

- (1) All numerical values represent minimum/maximum average roll values, i.e. the average minimum test results on any roll in a lot should meet or exceed the minimum specified value.
- (2) The tensile strength (T) of a joined multi-layered geogrid shall be computed using the following equation: $T = n(f)t$

where

n = the number of individual layers in the joined multi-layered geogrid,

t = the tensile strength of a single layer of geogrid as determined using testing method ASTM D4595, and

f = reduction factor based on the number of layers comprising the multi-layered system and determined by the equation $f = 1.00 - [0.04(n - 1)]$.

- (3) Values shall be determined by Option “A” (Cantilever Test) of testing method ASTM D1388 using test specimens that are 36 inches ± 0.04 inch long. Test specimen widths for differing geogrids shall be variable and equal to 1 element plus $\frac{1}{2}$ the aperture width on both sides of that element. An element is defined as the minimum number of parallel strands that form a distinguishable repeating pattern.
- (4) Aperture Area and Aperture Dimension for joined multi-layer geogrids shall be determined based on measurement of a single layer of the geogrid. Protect the geogrid from ultraviolet radiation and from damage due to shipping and handling. Keep the geogrid dry until it is installed. The geogrid rolls shall be clearly marked to identify the material contained.

Deliver a sample of the geogrid material to the engineer at least 10 days prior to its incorporation into the work. At the same time, furnish a manufacturer’s Certified Report of Test or Analysis that verifies that the geogrid delivered for use on the work meets the above requirements. Samples of geogrid for test purposes will be obtained from the job site for each 10,000 square yards or portions thereof used on the contract.

C Construction

Prior to placement of the geogrid, bring the indicated placement surface to the required lines, grades, and dimensions as shown on the plans. Smooth and shape the surface to eliminate any rocks, clods, roots, or other items that may cause damage to the geogrid during placement or covering.

Place the geogrid on the prepared surface at the locations and to the limits as shown on the plans. After placement, pull the geogrid taut and secure it using pins, clips, staples, or other devices to prevent movement or displacement. Place parallel strips of geogrid with a minimum overlap of 6 inches. Lap butt joints between roll ends a minimum of 12 inches. Fasten all lapped sections together by using ties, straps, clips, or other devices to develop a secure joint that meets the approval of the engineer. No vehicles or construction equipment shall be permitted to operate directly on the geogrid.

Cover small rips, tears, or defects in the geogrid with an additional section of geogrid; secure the additional geogrid in place so that it overlaps the damaged area by at least 3 feet in all directions. Remove and replace geogrid sections with large rips, tears, defects, or other damage at the direction of the engineer. All costs to repair or replace damaged or defective geogrid shall be the responsibility of the contractor.

After placement, cover the geogrid to the indicated depth with the type of material required on the plans or in the special provisions. Placing, spreading, and compacting of this material shall comply with the applicable sections of the standard specifications or special provisions except that the initial lift of material placed on the geogrid must be at least 4 inches. Place, spread, and compact the required backfill material so that the geogrid is not displaced or damaged. The engineer may require changes in equipment and/or operations to prevent such damage or displacement.

D Measurement

The department will measure Geogrid Reinforcement by the square yard of surface area upon which the geogrid has been placed, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.03	Geogrid Reinforcement	SY

Payment is full compensation for furnishing, transporting, and installing the geogrid; and for furnishing and installing all devices and materials necessary to join or secure the geogrid in place.

136. Excavation, Hauling, and Disposal of Contaminated Sediment, Item SPV.0195.01.

A Description

A.1 General

This special provision describes excavating, dewatering, temporary storage, loading, hauling, and disposal of soft sediment (contaminated sediment) excavated for this project and designated by the Environmental Consultant as contaminated material to be disposed as solid waste at a Wisconsin Department of Natural Resources (WDNR)-licensed solid

waste landfill. All granular sediment and clay removed from the river, Plum Creek tributary, and floodplain soil shall be managed as Common Excavation.

Perform this work in accordance 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 sediment.

A.2 Notice to the Contractor

The contractor is advised that excavations within the Fox River for this project will occur within the United States Environmental Protection Agency (USEPA) Lower Fox River Superfund site, where soft sediment have the potential to be contaminated with PCBs. The department completed testing of the sediment where excavation is required for this project. Only granular sediment and clay were observed and testing indicated that these materials are free of contamination and can be managed as Common Excavation. Soft sediment was not observed within the construction limits at the proposed pier locations. However, if soft sediment is observed during construction, this material shall be managed as PCB-contaminated sediment and shall be containerized, characterized, and disposed off-site as a solid waste.

For further information regarding the investigations contact the Environmental Consultant listed below.

A.3 Coordination With The Environmental Consultant

The contractor shall coordinate work under this contract with the Environmental Consultant retained by the department:

Consultant: TRC Environmental Corporation
Address: 708 Heartland Trail, Suite 3000, Madison, WI, 53717-1934
Contact: Dan Haak
Phone: (608) 826-3628
Fax: (608) 826-3941
E-mail: dhaak@trcsolutions.com

The role of the environmental consultant will be limited to:

- Identifying contaminated sediment to be hauled to the WDNR licensed landfill selected by the contractor;
- Characterizing contaminated sediment for disposal approval;
- Documenting that activities associated with management of contaminated sediment are in conformance with the contaminated sediment management methods for this project as specified herein; and
- Obtaining the necessary approvals for disposal of contaminated sediment from the landfill.

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 at each of the pier locations. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities at each of the pier locations.

Identify the WDNR-licensed landfill that is approved to accept sediment which will be used for disposal, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the pier areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated sediment from the landfill. Do not transport contaminated sediment offsite without prior approval from the environmental consultant.

A.4 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

Soft sediments are not known to be present on this project; however if soft sediment is encountered, this material may be contaminated with PCBs. 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.

A.5 Erosion Control

Supplement standard spec 107.20 with the following:

Include as part of the Erosion Control Implementation Plan (ECIP), as required under standard spec 107.20, the construction methods for sediment removal, the proposed location for staging and dewatering activities for removed sediment, and the means and methods for containment and dewatering of soft sediment should it be encountered during construction.

All work involving excavation and dredging for removal of existing structures and construction of temporary or permanent structures in the Fox River shall be performed in a manner and by methods or techniques that will minimize the turbidity increases and sediment resuspension. Erosion and sediment control devices such as silt curtains or turbidity barriers shall be used to prevent migration of resuspended sediment beyond the construction limits. Upon completion of construction, the silt curtain or turbidity barrier shall be removed.

B (Vacant)

C Construction Methods

Supplement standard spec 205.3 with the following:

Contractor is responsible for excavating, dewatering, temporarily storing, loading, hauling, and disposing of contaminated sediment. Excavations shall not extend beyond the construction limits unless directed by engineer.

Based on the site data for the areas to be excavated, soft sediment deposits are not anticipated to be encountered during construction. If deposits of soft sediment are observed within the excavation areas, the Environmental Consultant will direct the contractor to segregate the soft sediment from the Common Excavation, and manage the soft sediment as a solid waste.

Temporarily containerize soft sediment as a solid waste in a covered and lined roll-off box or similar container, pending results of waste characterization. Environmental Consultant to collect waste characterization sample from the soft sediment, and coordinate approval for disposal of the material at a WDNR-licensed disposal facility approved to accept sediment. The disposal facility options for this project are listed below. Contractor to assist the Environmental Consultant in collecting the samples, using excavation equipment, if necessary. Contractor to allow 30 days from the date of sample collection for waste characterization for disposal approval.

If characterization results find the soft sediment material to be classified as a non-hazardous waste, Contractor to load, haul, and dispose sediment at the selected WDNR-approved disposal facility. The contractor shall not transport sediment off-site without approval of the engineer and the disposal facility.

If the characterization results find that the soft sediment is to be classified as a hazardous waste, the material will be required to be transported and disposed under the State's hazardous waste subcontract with Veolia Environmental Services.

Of the facilities listed below, the Bay Port DMFR can accept sediment with free liquids. However, if dewatering is necessary to transport or dispose of the soft sediment, contractor will complete dewatering and manage the water in accordance to waste water discharge and handling requirements within the Wisconsin Administrative Code, Chapters NR 100-299 and the requirements of the ECIP. Dewatering work will not proceed until necessary permits are in place. Contractor to perform all work necessary to control, handle, and dispose of water generated from dewatering.

Use loading and hauling practices that prevent any spills or releases of contaminated sediment or residues from point of generation (piers) to the disposal site. Verify that vehicles used to transport contaminated sediment are licensed for such activity in accordance to applicable state and federal regulations.

Contractor to pay all fees for the disposal of sediment classified as non-hazardous solid waste. WDNR-licensed solid waste facilities approved to accept contaminated sediment for this contract include:

Port of Green Bay
Bay Port Dredge Material Rehandling Facility (DMFR)
Brown County Solid Waste Department
2561 S. Broadway Street
Green Bay, WI 54304
(920) 492-4950

Waste Management – Ridgeview RDF
6207 Hempton Lake Road
Whitelaw, Wisconsin 54247
(920) 732-4473 x228

Veolia – Hickory Meadows Landfill
W3105 Schneider Road
Hilbert, Wisconsin 54129
(920) 853-8553

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Sediment by the ton of material accepted by the disposal facility. (If Bay Port DMFR is selected as the disposal facility, a conversion of 1.4 tons/cy will be used to convert from cubic yards, as used by Bay Port DMFR, to tons.)

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Excavation, Hauling, and Disposal of Contaminated Sediment	Ton

Payment is full compensation for the payment of all disposal tipping fees and taxes and the furnishing of all labor, tools, equipment, and incidentals necessary to complete the work for the excavating, segregating, dewatering, temporary storing, hauling, and disposing of the solid waste in accordance to the contract.

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

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

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

I. BASIC CONCEPTS

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

- 1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of \$5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 14 (number) TrANS Graduate(s) be utilized on this contract.

- 2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of \$5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

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

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 8 (number) TrANS Apprentice(s) be utilized on this contract.

- 3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.
- 4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.
- 5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

I. RATIONALE AND SPECIAL NOTE

The \$5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the \$5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

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

II. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. TRANS TRAINING

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical underrepresentation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

- (1) To increase the overall effectiveness of the State highway agencies' approved training programs.
- (2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3 DISADVANTAGED BUSINESS ENTERPRISE 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://www.dot.wisconsin.gov/business/engrserv/dbe-main.htm>

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. Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT-approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
 - 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. <https://www.bidx.com/wi/main>. Other acceptable means include postal mail, email, fax, phone call.
 - a. Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
 - b. Solicit quotes at least 10 calendar days prior to the letting date {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. Evaluate DBE quotes 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 tied bid items. "Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as 'all or none' quote to the prime." When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms' quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.
 - (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 at
<http://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx>
- 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 at

<http://www.dot.wisconsin.gov/business/engrserv/docs/dbe-trucking-notice.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://www.dot.wisconsin.gov/business/engrserv/docs/policyreplacingdbe.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. **Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.** We prefer quotes be sent via SBN but prime's 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 <http://roadwaystandards.dot.wi.gov/hcci/>

All questions should be directed to:

Project Manager, John Doe,
Phone: (000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTATION

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have some one contact me at this number

Prime Contractor's Contact Person

Phone: _____
Fax: _____
Email: _____

DBE Contractor Contact Person

Phone: _____
Fax: _____
Email: _____

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternative's are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance
- Participate in speed networking and mosaic exercises as arranged by DBE office
- Host information sessions not directly associated with a bid letting;
- Participate in a formal mentor protégé or joint venture with a DBE firm
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings
- Facilitate a small group DBE ‘training session’ Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs
- Participate on advisory and mega-project committees
- Sign up to receive the DBE Contracting Update
- Consider membership in relevant industry or contractor organizations
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C

Types of Efforts considered in determining GFE

This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities;
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively;
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal;
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

- I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.
- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
 - B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- D.
 - (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.
- F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E

Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
 - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.
2. Create sub-quotes for the subcontracting community:
 - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
 - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
 - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request
 - d. Add attachments to sub-quotes
3. View sub-quote requests & responses:
 - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
 - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing
4. View Record of Subcontractor Outreach Effort:
 - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
 - b. Easily locate pre-qualified and certified small and disadvantaged businesses
 - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively
 - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency)

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
 - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
 - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
 - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes
 - c. Add attachments to a sub-quote
3. Create and send unsolicited sub-quotes to specific contractors:
 - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
 - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on 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

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 2014 edition of the standard specifications:

101.3 Definitions

Replace the definition of semi-final estimate with the following effective with the December 2013 letting:

Semi-final estimate An estimate indicating the engineer has measured and reported all contract quantities and materials requirements.

105.11.1 Partial Acceptance

Replace paragraph two with the following effective with the December 2013 letting:

- (2) Partial acceptance will relieve the contractor of maintenance responsibility for the designated portion of the work. By relieving the contractor of maintenance, the department does not relieve the contractor of responsibility for defective work or damages caused by the contractor's operations. Do not construe partial acceptance to be conditional final acceptance or final acceptance of any part of the project, or a waiver of any legal rights specified under 107.16.
-

105.11.2 Final Acceptance

Retitle and replace the entire text with the following effective with the December 2013 letting:

105.11.2 Project Acceptance**105.11.2.1 Inspection****105.11.2.1.1 General**

- (1) Notify the engineer when the project is substantially complete as defined in 105.11.2.1.3. As soon as it is practical, the engineer will inspect the work and categorize it as one of the following:
1. Unacceptable or not complete.
 2. Substantially complete.
 3. Complete.

105.11.2.1.2 Unacceptable or Not Complete

- (1) The engineer will identify, in writing, work that is unacceptable or not complete. Immediately correct or complete that work. The engineer will assess contract time until the work is corrected or completed.
- (2) Proceed as specified in 105.11.2.1.1 until the engineer determines that the work is complete.

105.11.2.1.3 Substantially Complete

- (1) The project is substantially complete and the engineer will no longer assess contract time if the contractor has completed all contract bid items and change order work, except for the punch-list. As applicable, the following must have occurred:
1. All lanes of traffic are open on a finished surface.
 2. All signage and traffic control devices are in place and operating.
 3. All drainage, erosion control, excavation, and embankments are completed.
 4. All safety appurtenances are completed.
- (2) The engineer will provide a written punch-list enumerating work the contractor must perform and documents the contractor must submit before the the engineer will categorize the work as complete.
1. Punch-list work includes uncompleted cleanup work required under 104.9 and minor corrective work. Immediately correct or complete the punch-list work. The engineer may restart contract time if the contractor does not complete the punch-list work within 5 business days after receiving the written punch-list. The engineer and contractor may mutually agree to extend this 5-day requirement.
 2. Punch-list documents include whatever contract required documentation is missing. The engineer may restart contract time if the contractor does not submit the punch-list documents within 15 business days after receiving the written punch-list. The engineer and contractor may mutually agree to extend this 15-day requirement.
- (3) Proceed as specified in 105.11.2.1.1 until the work is complete.

105.11.2.1.4 Complete

- (1) The project is complete when the contractor has completed all contract bid items, change order work, and punch-list work including the submission of all missing documentation.

105.11.2.2 Conditional Final Acceptance

- (1) When the engineer determines that the project is complete, the engineer will give the contractor written notice of conditional final acceptance relieving the contractor of maintenance responsibility for the completed work.

105.11.2.3 Final Acceptance

- (1) The engineer will grant final acceptance of the project after determining that all contract is work complete; all contract, materials, and payroll records are reviewed and approved; and the semi-final estimate quantities are final under 109.7.
- (2) Failure to discover defective work or materials before final acceptance does not prevent the department from rejecting that work or those materials later. The department may revoke final acceptance if the department discovers defective work or materials after it has accepted the work.

105.13.3 Submission of Claim

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Submit the claim to the project engineer as promptly as possible following the submission of the Notice of Claim, but not later than final acceptance of the project as specified in 105.11.2.3. If the contractor does not submit the claim before final acceptance of the project, the department will deny the claim.

107.17.3 Railroad Insurance Requirements

Replace paragraph one with the following effective with the December 2013 letting:

- (1) If required by the special provisions, provide or arrange for a subcontractor to provide railroad protective liability insurance in addition to the types and limits of insurance required in 107.26. Keep railroad protective liability insurance coverage in force until completing all work, under or incidental to the contract, on the railroad right of way or premises of the railroad and until the engineer determines that the work is complete as specified in 105.11.2.1.4.

107.26 Standard Insurance Requirements

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Maintain the following types and limits of commercial insurance in force until the engineer determines that the work is complete as specified in 105.11.2.1.4.

TABLE 107-1 REQUIRED INSURANCE AND MINIMUM COVERAGES

TYPE OF INSURANCE	MINIMUM LIMITS REQUIRED ^[1]
1. Commercial general liability insurance endorsed to include blanket contractual liability coverage. ^[2]	\$2 million combined single limits per occurrence with an annual aggregate limit of not less than \$4 million.
2. Workers' compensation.	Statutory limits
3. Employers' liability insurance.	Bodily injury by accident: \$100,000 each accident Bodily injury by disease: \$500,000 each accident \$100,000 each employee
4. Commercial automobile liability insurance covering all contractor-owned, non-owned, and hired vehicles used in carrying out the contract. ^[2]	\$1 million-combined single limits per occurrence.

^[1] The contractor may satisfy these requirements with primary insurance coverage or with excess/umbrella policies.

^[2] The Wisconsin Department of Transportation, its officers, agents, and employees shall be named as an additional insured under the general liability and automobile liability insurance.

108.14 Terminating the Contractor's Responsibility

Replace paragraph one with the following effective with the December 2013 letting:

- (1) The contractor's responsibilities are terminated, except as set forth in the contract bond and specified in 107.16, when the department grants final acceptance as specified in 105.11.2.3.
-

109.2 Scope of Payment

Replace paragraph two with the following effective with the December 2013 letting:

- (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 applicable bid items 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.
-

109.6.1 General

Replace paragraphs three and four with the following effective with the December 2013 letting:

- (3) The department's payment of an estimate before conditional final acceptance of the work does not constitute the department's acceptance of the work, and does not relieve the contractor of responsibility for:
 1. Protecting, repairing, correcting, or renewing the work.
 2. Replacing all defects in the construction or in the materials used in the construction of the work under the contract, or responsibility for damage attributable to these defects.
 - (4) The contractor is responsible for all defects or damage that the engineer may discover on or before the engineer's conditional final acceptance of the work. The engineer is the sole judge of these defects or damage, and the contractor is liable to the department for not correcting all defects or damage.
-

109.7 Acceptance and Final Payment

Replace paragraphs one and two with the following effective with the December 2013 letting:

- (1) After the engineer grants conditional final acceptance of the work as specified in 105.11.2.2 and reviews required document submittals and materials test reports, the engineer will issue the semi-final estimate.
- (2) Within 30 calendar days after receiving the semi-final estimate, submit to the engineer a written statement of agreement or disagreement with the semi-final estimate. For an acceptable statement of disagreement, submit an item-by-item list with reasons for each disagreement. If the contractor does not submit this written statement within those 30 days, the engineer will process the final estimate for payment. The engineer and the contractor can mutually agree to extend this 30-day submission requirement.

450.3.3 Maintaining the Work

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Protect and repair the prepared foundation, tack coat, base, paved traffic lanes, shoulders, and seal coat. Correct all rich or bleeding areas, breaks, raveled spots, or other nonconforming areas in the paved surface.

455.3.2.5 Maintaining Tack Coat

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Protect and repair the existing surface and the tack coat. Correct areas with excess or deficient tack material and any breaks, raveled spots, or other areas where bond might be affected.

460.2.2.3 Aggregate Gradation Master Range

Replace paragraph one with the following effective with the January 2014 letting:

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

SIEVE	PERCENTS PASSING DESIGNATED SIEVES						
	NOMINAL SIZE						
	37.5 mm	25.0 mm	19.0 mm	12.5 mm	9.5 mm	SMA 12.5 mm	SMA 9.5 mm
50.0-mm	100						
37.5-mm	90 - 100	100					
25.0-mm	90 max	90 - 100	100				
19.0-mm	—	90 max	90 - 100	100		100	
12.5-mm	—	—	90 max	90 - 100	100	90 - 97	100
9.5-mm	—	—	—	90 max	90 - 100	58 - 72	90 - 100
4.75-mm	—	—	—	—	90 max	25 - 35	35 - 45
2.36-mm	15 - 41	19 - 45	23 - 49	28 - 58	20 - 65	15 - 25	18 - 28
75-μm	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	8.0 - 12.0	10.0 - 14.0
% MINIMUM VMA	11.0	12.0	13.0	14.0 ^[1]	15.0 ^[2]	16.0	17.0

^[1] 14.5 for E-3 mixes.

^[2] 15.5 for E-3 mixes.

460.2.7 HMA Mixture Design

Replace paragraph one with the following effective with the January 2014 letting:

- (1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to the department's test method number 1559 as described in CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to the department's test method number 1559.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
ESALs x 10 ⁶ (20 yr design life)	< 0.3	0.3 - < 1	1 - < 3	3 - < 10	10 - < 30	>= 30	—
LA Wear (AASHTO T96)							
100 revolutions(max % loss)	13	13	13	13	13	13	13
500 revolutions(max % loss)	50	50	45	45	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18	18	18	18
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	60 / —	65 / —	75 / 60	85 / 80	98 / 90	100/100	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	40	43	45	45	45	45
Sand Equivalency (AASHTO T176, min)	40	40	40	45	45	50	50
Gyratory Compaction							
Gyrations for N _{ini}	6	7	7	8	8	9	8
Gyrations for N _{des}	40	60	75	100	100	125	65
Gyrations for N _{max}	60	75	115	160	160	205	160
Air Voids, %V _a (%G _{mm} N _{des})	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% G _{mm} N _{ini}	<= 91.5 ^[1]	<= 90.5 ^[1]	<= 89.0 ^[1]	<= 89.0	<= 89.0	<= 89.0	—
% G _{mm} N _{max}	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	—
Dust to Binder Ratio ^[2] (% passing 0.075/P _{be})	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 ^{[4] [5]}	65 - 78 ^[4]	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)							
no antistripping additive	0.70	0.70	0.70	0.70	0.70	0.70	0.70
with antistripping additive	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Draindown at Production Temperature (%)	—	—	—	—	—	—	0.30

^[1] The percent maximum density at initial compaction is only a guideline.

^[2] For a gradation that passes below the boundaries of the caution zone(ref. AASHTO MP3), the dust to binder ratio limits are 0.6 - 1.6.

^[3] For 9.5mm and 12.5 mm nominal maximum size mixtures, the specified VFB range is 70 - 76%.

^[4] For 37.5mm nominal maximum size mixes, the specified VFB lower limit is 67%.

^[5] For 25.0mm nominal maximum size mixes, the specified VFB lower limit is 67%.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the January 2014 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	+/- 1.3	+/- 1.0
VMA in percent ^[1]	- 0.5	- 0.2

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

- (2) Warning bands are defined as the area between the JMF limits and the warning limits.

460.2.8.2.1.6 Job Mix Formula Adjustment

Replace the entire text with the following effective with the January 2014 letting:

- (1) The contractor may request adjustment of the JMF according to the department's test method number 1559. Have an HTCP 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 an HMA technician certified at level III review the proposed adjustment and, if acceptable, issue a revised JMF.
- (2) The department will not allow adjustments that do the following:
- Exceed specified JMF tolerance limits.
 - Reduce the JMF asphalt content unless the production VMA running average meets or exceeds the minimum VMA design requirement defined in table 460-1 for the mixture produced.
- (3) Have an HMA technician certified at level II make related process adjustments. If mixture redesign is necessary, submit a new JMF, subject to the same specification requirements as the original JMF.

520.3.8 Protection After Laying

Delete the entire subsection.

614.2.1 General

Replace paragraphs five and six with the following effective with the December 2013 letting:

- (5) Furnish zinc coated wire rope and fitting conforming to the plans and galvanized according to ASTM A741.
- (6) Before installation store galvanized components above ground level and away from surface run off. The department may reject material if the zinc coating is physically damaged or oxidized.
- (7) Provide manufacturer's drawings, and installation and maintenance instructions when providing proprietary systems.

614.2.3 Steel Rail and Fittings

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Furnish galvanized steel rail conforming to AASHTO M180 class A, type II beam using the single-spot test coating requirements. Furnish plates, anchor plates, post mounting brackets, and other structural steel components conforming to 506.2.2.1 and hot-dip galvanized according to ASTM A123.

614.2.7 Crash Cushions

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Furnish permanent and temporary crash cushions from the department's approved products list. Use cushions as wide or wider than the plan back-width. Furnish transitions conforming to the crash cushion manufacturer's design and specifications. Submit manufacturer crash cushion and transition design details to engineer before installing.

616.3.1 General

Replace paragraph six with the following effective with the December 2013 letting:

- (6) Remove and dispose of all excess excavation and surplus materials from the fence site.

618.3.3 Restoration

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Upon termination of hauling operations and before conditional final acceptance, restore all haul roads, including drainage facilities and other components, to the equivalent of pre-hauling conditions.

627.3.1 General

Replace paragraph four with the following effective with the December 2013 letting:

- (4) Maintain the mulched areas and repair all areas damaged by wind, erosion, traffic, fire or other causes.

637.3.2.1 General

Delete paragraph three effective with the December 2013 letting.

670.3.4.2 Post-Construction Work

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Submit 5 copies of ITS documentation including but not limited to the following:
 - Operator's manual: for contractor furnished equipment, submit a manual containing detailed operating instructions for each different type or model of equipment and or operation performed.
 - Maintenance procedures manuals: for contractor furnished equipment, submit a manual containing detailed preventive and corrective maintenance procedures for each type or model of equipment furnished.
 - Cabinet fiber optic wiring diagram: submit a cabinet wiring diagram, identified by location for each cabinet. Include both electrical wiring and fiber optic conductor and cable connections. Place one copy of the fiber optic wiring diagram in a weatherproof holder in the cabinet. Deliver the other copies to the engineer.
 - As-built drawings: submit final as-built drawings that detail the final placement of all conduit, cabling, equipment, and geometric modifications within the contract. Provide all documentation in an electronic format adhering to the region's ITS computer aided drafting standards and according to the department's as-built requirements. The department will review the as-built drawings for content and electronic format. Modify both the content and format of as-built drawings until meeting all requirements.
 - Equipment inventory list: submit an inventory list including serial number, make, model, date installed, and location installed of all equipment installed under the contract.

Errata

Make the following corrections to the 2014 edition of the standard specifications:

415.3.14 Protecting Concrete

Correct errata by referencing the opening to service specification.

- (1) Erect and maintain suitable barricades and, if necessary, provide personnel to keep traffic off the newly constructed pavement until it is opened for service as specified in 415.3.15. Conform to 104.6 for methods of handling and facilitating traffic.
-

501.2.9 Concrete Curing Materials

Correct errata by changing AASHTO M171 to ASTM C171.

- (2) Furnish sheeting conforming to ASTM C171 for white opaque polyethylene film, except that the contractor may use clear or black polyethylene for cold weather protection.
-

607.2 Materials

Correct errata by changing AASHTO M198 to ASTM C990.

- (1) Use materials conforming to the requirements for the class of material named and specified below.
- | | |
|--|------------|
| Composite pipe, couplings, fittings and joint materials | ASTM D2680 |
| Annular rubber and plastic gaskets for flexible, watertight joints | ASTM C990 |
| External rubber gaskets, mastic, and protective film..... | ASTM C877 |
| Mortar | 519.2.3 |
-

637.2.1.3 Sheet Aluminum

Correct errata by changing ASTM B449 to B921 and eliminating the specification for coating thickness.

- (4) Degrease, etch, and coat the sign blank on both sides with a chromate treatment conforming to ASTM B921, class 2.
-

637.3.3.4 Performance

Correct errata to reference to 105.11.2.3 as revised to implement changes to the finals process.

- (1) Under 105.11.2.3 the department may revoke acceptance and direct the contractor to repair or replace previously accepted sign installations if the department subsequently discovers evidence of defective materials or improper installation. Deficiencies that warrant department action include but are not limited to the following:
- Sign posts more than five degrees out of plumb.
 - Signs twisted by more than 5 degrees from plan orientation.
 - Signs with delaminated or warped plywood.
 - Signs with bubbling, fading, delaminating, or buckling sheeting.
-

646.3.3.4 Proving Period

Correct errata to reference to 105.11.2.3 as revised to implement changes to the finals process.

- (4) Replace all marking within sections with a percent failing more than 10% and repair or replace all markings that, in the engineer's assessment, show evidence of improper construction. If post-acceptance inspections uncover evidence of defective materials or improper construction, the department may revoke acceptance under 105.11.2.3.

ADDITIONAL SPECIAL PROVISION 7

- A. Reporting 1st Tier and DBE Payments During Construction
1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
 2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
 3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
 4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
 5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
 6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- B. Costs for conforming to this special provision are incidental to the contract.

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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm>

(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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/crc-basic-info.pdf>

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

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

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

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

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

b. Trainees (programs of the USDOL).

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

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

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

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

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

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

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

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

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

* * * * *

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

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

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

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

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

SEPTEMBER 2002

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

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

Goals for Minority Participation for Each Trade:

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director
Office of Federal Contract Compliance Programs
Ruess Federal Plaza
310 W. Wisconsin Ave., Suite 1115
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

DECEMBER 2013

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://roadwaystandards.dot.wi.gov/standards/cmm/cm-02-28.pdf#cm2-28.5>

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://roadwaystandards.dot.wi.gov/standards/forms/ws4567.doc>

**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 contracts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price 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
BROWN 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, 2014

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.

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	30.77	16.92	47.69
Carpenter	30.48	15.90	46.38
Cement Finisher	32.65	17.32	49.97
Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	28.50	17.53	46.03
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	16.00	3.33	19.33
Ironworker	28.72	23.47	52.19
Future Increase(s): Add \$1.10/hr on 6/1/2014; Add \$1.15/hr on 6/1/2015.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Line Constructor (Electrical)	38.25	16.38	54.63
Painter	21.87	11.37	33.24
Pavement Marking Operator	30.00	0.00	30.00
Piledriver	30.98	15.90	46.88
Roofer or Waterproofer	19.50	5.75	25.25
Teledata Technician or Installer	21.89	11.85	33.74
Tuckpointer, Caulker or Cleaner	30.77	5.56	36.33
Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15.74	51.24
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.58	40.36
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45

TRUCK DRIVERS

Single Axle or Two Axle	34.22	19.90	54.12
Three or More Axle	24.52	17.77	42.29
Future Increase(s): Add \$1.30/hr on 6/1/2014. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	29.27	20.40	49.67
Future Increase(s): Add \$1.75/hr on 6/1/14; Add \$1.25/hr on 6/1/15; Add \$1.30/hr on 6/1/16; Add \$1.25/hr on 6/ 1/ 17. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:// www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm .			
Pavement Marking Vehicle	23.31	17.13	40.44
Shadow or Pilot Vehicle	34.22	19.90	54.12
Truck Mechanic	23.31	17.13	40.44

LABORERS

General Laborer	29.04	14.63	43.67
Future Increase(s): Add \$1.60/hr on 6/1/2014. Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	17.00	0.00	17.00
Landscaper	29.04	14.63	43.67
Future Increase(s): Add \$1.60/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	25.67	14.63	40.30
Future Increase(s): Add \$1.60/hr on 6/1/2014. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	16.00	5.87	21.87
Railroad Track Laborer	23.46	13.88	37.34

HEAVY EQUIPMENT OPERATORS

Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type).	36.72	20.40	57.12

Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/ 1/ 2017.

Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.

See DOT'S website for details about the applicability of this night work premium at: <http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm>.

Backhoe (Track Type) Having a Mfg'r.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or 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.	36.22	20.40	56.62

Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/ 1/ 2017.

Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.

See DOT'S website for details about the applicability of this night work premium at: <http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm>.

Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfg'r.'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, Vibratory/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 & Gutter 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, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; 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 Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle	35.72	20.40	56.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
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); Winches & A- Frames. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/ 1/ 2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:// www.dot.wi.gov/business/ civilrights/ laborwages/ pwc. htm .			
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 Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (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 \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/ 1/ 2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:// www.dot.wi.gov/business/ civilrights/ laborwages/ pwc. htm .	35.72	20.40	56.12
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 Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.75/hr on 6/1/2014); Add \$1.25/hr on 6/1/2015); Add \$1.30/hr on 6/1/2016); Add \$1.25/hr on 6/ 1/ 2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:// www.dot.wi.gov/business/ civilrights/ laborwages/ pwc. htm .	35.17	20.40	55.57
Fiber Optic Cable Equipment.	26.69	16.65	43.34
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	20.17	58.97
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	38.80	20.17	58.97
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	34.50	20.04	54.54
Work Performed on the Great Lakes Including Deck Equipment Operator,	34.50	20.04	54.54

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.			

SUPERSEDES DECISION W120120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: W1140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: May 2, 2014

LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits			Basic Hourly Rates	Fringe Benefits
				<u>Truck Drivers:</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 (Shoveler, Loader, Utility Man); Batch Truck Dumper; or Cement Handler; Bituminous Worker; (Dumper, Ironer, Smoother, Tamper); Concrete Handler	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	23.97	18.32	
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

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 3, 2014; Modification #1, dated February 7,
2014; Modification #2, dated March 14, 2014; Modification #3, dated May 2, 2014.

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.77	16.62
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	28.72	23.47
Cement Mason/Concrete Finisher	31.52	16.30
Electrician	See Page 3	
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	22.82	11.52
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: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: May 2, 2014

<u>POWER EQUIPMENT OPERATORS CLASSIFICATION:</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>	<u>POWER EQUIPMENT OPERATORS CLASSIFICATION: (Continued)</u>	<u>Basic Hourly Rates</u>	<u>Fringe 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	\$36.72	\$20.10	(scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader hydraulic backhoe (tractor-type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller (over 5 tons); percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches and A-frames; post driver; material hoist operator.	\$35.72	\$20.10
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.	\$36.22	\$20.10	Group 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self-propelled; tractor (mounted or towed compactors and light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint saw (multiple blade) belting machine; burlap machine; texturing machine; tractor, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$35.46	\$20.10
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 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 mixer (self propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter and grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer and scarifier; backhoes (excavators) having a manufacturers rated capacity of under 3 cu. yds.; grader or motor patrol; tractor			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); drilling machine helper.	\$35.17	\$20.10
			Group 6: Off - road material hauler with or without ejector	\$29.27	\$20.10
			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		

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

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: May 2, 2014

LABORERS CLASSIFICATION:

Rates

Benefits

			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 boundary of Oconto County), SHAWANO (except area North of Townships of Aniwa and Hutchins) COUNTIES.
Electricians				
Area 1	\$28.40	16.676		
Area 2:				
Electricians.....	29.13	17.92	Area 5 -	ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausauke), 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 Hutchins), VILAS AND WOOD COUNTIES
Area 3:				
Electrical contracts under \$130,000	26.24	16.85		
Electrical contracts over \$130,000	29.41	16.97		
Area 4:	28.50	28.75% + 9.27		
Area 5	28.96	24.85% + 9.70		
Area 6	35.25	19.30	Area 6 -	KENOSHA COUNTY
Area 8				
Electricians.....	30.60	24.95% + 10.33	Area 8 -	DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES
Area 9:				
Electricians.....	32.94	18.71		
Area 10	28.97	20.45	Area 9 -	COLUMBIA, DANE, DODGE, (area west of Hwy. 26, except Chester & Emmet Townships), GREEN LAKE (except townships of Berlin, Seneca and St. Marie), IOWA, MARQUETTE (except townships of Neshkoka, Crystal Lake, Newton and Springfield), and SAUK COUNTIES
Area 11	31.91	23.60		
Area 12	32.87	19.23	Area 10 -	CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES
Area 13	32.82	22.51		
Teledata System Installer				
Area 14			Area 11 -	DOUGLAS COUNTY
Installer/Technician	21.89	11.83		
Sound & Communications			Area 12 -	RACINE (except Burlington township) COUNTY
Area 15				
Installer	16.47	14.84	Area 13 -	MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES
Technician	24.75	16.04	Area 14 -	Statewide.
Area 1 -			Area 15 -	DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES.
CALUMET (except township of New Holstein), GREEN LAKE (N. part, including Townships of Berlin, St. Marie and Seneca), MARQUETTE (N. part, including Townships of Crystal Lake, Neshkoro, Newton & 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, TREMPLEAU, VERNON and WASHBURN COUNTIES				
Area 3 -				
FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)				

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 omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate. The higher of state or federal rate will apply.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS

SECTION 0001 CONTRACT ITEMS

0010	201.0105 CLEARING	13.000 STA	.	.
0020	201.0120 CLEARING	784.000 ID	.	.
0030	201.0205 GRUBBING	13.000 STA	.	.
0040	201.0220 GRUBBING	784.000 ID	.	.
0050	203.0600.S REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. STA 206"H"+00	LUMP	LUMP	.
0060	204.0100 REMOVING PAVEMENT	18,224.000 SY	.	.
0070	204.0150 REMOVING CURB & GUTTER	1,390.000 LF	.	.
0080	204.0155 REMOVING CONCRETE SIDEWALK	10,921.000 SY	.	.
0090	204.0165 REMOVING GUARDRAIL	625.000 LF	.	.

SCHEDULE OF ITEMS

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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	204.0185 REMOVING MASONRY	119.000 CY	.		.	
0110	204.0195 REMOVING CONCRETE BASES	2.000 EACH	.		.	
0120	204.0210 REMOVING MANHOLES	12.000 EACH	.		.	
0130	204.0220 REMOVING INLETS	31.000 EACH	.		.	
0140	204.0245 REMOVING STORM SEWER (SIZE) 01. 6-INCH	148.000 LF	.		.	
0150	204.0245 REMOVING STORM SEWER (SIZE) 02. 8-INCH	5.000 LF	.		.	
0160	204.0245 REMOVING STORM SEWER (SIZE) 03. 10-INCH	35.000 LF	.		.	
0170	204.0245 REMOVING STORM SEWER (SIZE) 04. 12-INCH	1,967.000 LF	.		.	
0180	204.0245 REMOVING STORM SEWER (SIZE) 05. 15-INCH	118.000 LF	.		.	
0190	204.0245 REMOVING STORM SEWER (SIZE) 06. 18-INCH	11.000 LF	.		.	

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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	204.0245 REMOVING STORM SEWER (SIZE) 07. 24-INCH	80.000 LF	.		.	
0210	204.0245 REMOVING STORM SEWER (SIZE) 08. 30-INCH	62.000 LF	.		.	
0220	204.0291.S ABANDONING SEWER	45.000 CY	.		.	
0230	205.0100 EXCAVATION COMMON	23,437.000 CY	.		.	
0240	205.0300 EXCAVATION STONE PILES AND STONE FENCES	48.000 CY	.		.	
0250	205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	380.000 TON	.		.	
0260	206.1000 EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-5-381	LUMP	LUMP		.	
0270	206.3000 EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 01. R-5-110	LUMP	LUMP		.	
0280	206.3000 EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 02. R-5-111	LUMP	LUMP		.	
0290	206.5000 COFFERDAMS (STRUCTURE) 01. B-5-381	LUMP	LUMP		.	

Wisconsin Department of Transportation

PAGE: 4

DATE: 05/16/14

SCHEDULE OF ITEMS

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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0300	206.6000.S TEMPORARY SHORING	2,375.000 SF	.		.	
0310	208.0100 BORROW	21,879.000 CY	.		.	
0320	209.0100 BACKFILL GRANULAR	1,605.000 CY	.		.	
0330	210.0100 BACKFILL STRUCTURE	2,523.000 CY	.		.	
0340	213.0100 FINISHING ROADWAY (PROJECT) 01. 4075-28-71	1.000 EACH	.		.	
0350	213.0100 FINISHING ROADWAY (PROJECT) 02. 4095-10-72	1.000 EACH	.		.	
0360	214.0100 OBLITERATING OLD ROAD	7.000 STA	.		.	
0370	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	18,957.000 TON	.		.	
0380	311.0110 BREAKER RUN	13,764.000 TON	.		.	
0390	312.0115 SELECT CRUSHED MATERIAL	36.000 CY	.		.	
0400	405.0100 COLORING CONCRETE RED	472.000 CY	.		.	

SCHEDULE OF ITEMS

REVISED:

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4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0410	415.0080 CONCRETE PAVEMENT 8-INCH	8,283.000 SY	.		.	
0420	415.0090 CONCRETE PAVEMENT 9-INCH	9,261.000 SY	.		.	
0430	415.0100 CONCRETE PAVEMENT 10-INCH	3,023.000 SY	.		.	
0440	415.0410 CONCRETE PAVEMENT APPROACH SLAB	231.000 SY	.		.	
0450	415.1080 CONCRETE PAVEMENT HES 8-INCH	302.000 SY	.		.	
0460	416.0160 CONCRETE DRIVEWAY 6-INCH	982.000 SY	.		.	
0470	416.0260 CONCRETE DRIVEWAY HES 6-INCH	61.000 SY	.		.	
0480	416.0512 CONCRETE ROUNDBOUT TRUCK APRON 12-INCH	812.000 SY	.		.	
0490	416.0620 DRILLED DOWEL BARS	93.000 EACH	.		.	
0500	455.0120 ASPHALTIC MATERIAL PG64-28	70.000 TON	.		.	
0510	455.0605 TACK COAT	128.000 GAL	.		.	

SCHEDULE OF ITEMS

REVISED:

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WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0520	460.1101 HMA PAVEMENT TYPE E-1	719.000 TON	.		.	
0530	460.1103 HMA PAVEMENT TYPE E-3	325.000 TON	.		.	
0540	460.2000 INCENTIVE DENSITY HMA PAVEMENT	670.000 DOL	1.00000		670.00	
0550	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	253.000 TON	.		.	
0560	465.0125 ASPHALTIC SURFACE TEMPORARY	690.000 TON	.		.	
0570	465.0310 ASPHALTIC CURB	1,175.000 LF	.		.	
0580	502.0100 CONCRETE MASONRY BRIDGES	8,759.000 CY	.		.	
0590	502.1100 CONCRETE MASONRY SEAL	357.000 CY	.		.	
0600	502.3100 EXPANSION DEVICE (STRUCTURE) 02. B-5-381	LUMP	LUMP		.	
0610	502.3110.S EXPANSION DEVICE MODULAR (STRUCTURE) 01. B-5-381	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0620	502.3200 PROTECTIVE SURFACE TREATMENT	3,705.000 SY	.		.	
0630	503.0172 PRESTRESSED GIRDER TYPE I 72W-INCH	12,657.000 LF	.		.	
0640	504.0500 CONCRETE MASONRY RETAINING WALLS	203.000 CY	.		.	
0650	505.0405 BAR STEEL REINFORCEMENT HS BRIDGES	82,050.000 LB	.		.	
0660	505.0415 BAR STEEL REINFORCEMENT HS RETAINING WALLS	11,850.000 LB	.		.	
0670	505.0605 BAR STEEL REINFORCEMENT HS COATED BRIDGES	1,414,520 LB	.		.	
0680	505.0615 BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	5,900.000 LB	.		.	
0690	506.2605 BEARING PADS ELASTOMERIC NON-LAMINATED	98.000 EACH	.		.	
0700	506.2610 BEARING PADS ELASTOMERIC LAMINATED	77.000 EACH	.		.	
0710	506.4000 STEEL DIAPHRAGMS (STRUCTURE) 01. B-5-381	168.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0720	506.6000 BEARING ASSEMBLIES EXPANSION (STRUCTURE) 01. B-5-381	21.000 EACH	.		.	
0730	509.5100.S POLYMER OVERLAY	8,380.000 SY	.		.	
0740	513.2050.S RAILING PIPE	3.000 LF	.		.	
0750	514.0450 FLOOR DRAINS TYPE WF	10.000 EACH	.		.	
0760	514.2608 DOWNSPOUT 8-INCH	266.000 LF	.		.	
0770	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	55.000 SY	.		.	
0780	517.1010.S CONCRETE STAINING (STRUCTURE) 01. B-5-381	93,085.000 SF	.		.	
0790	517.1010.S CONCRETE STAINING (STRUCTURE) 02. R-5-110	810.000 SF	.		.	
0800	517.1010.S CONCRETE STAINING (STRUCTURE) 03. R-5-111	880.000 SF	.		.	
0810	517.1010.S CONCRETE STAINING (STRUCTURE) 04. R-5-112	580.000 SF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0820	517.1010.S CONCRETE STAINING (STRUCTURE) 05. R-5-113	565.000 SF	.		.	
0830	517.1050.S ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 01. B-5-381	21,250.000 SF	.		.	
0840	517.1050.S ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 02. R-5-110	640.000 SF	.		.	
0850	517.1050.S ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 03. R-5-111	565.000 SF	.		.	
0860	520.4012 CULVERT PIPE TEMPORARY 12-INCH	298.000 LF	.		.	
0870	520.4024 CULVERT PIPE TEMPORARY 24-INCH	48.000 LF	.		.	
0880	520.8000 CONCRETE COLLARS FOR PIPE	2.000 EACH	.		.	
0890	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH	24.000 LF	.		.	
0900	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	2.000 EACH	.		.	
0910	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	1.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0920	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	2.000 EACH	.		.	
0930	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	3.000 EACH	.		.	
0940	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	1.000 EACH	.		.	
0950	532.0300.S WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH	2,035.000 SF	.		.	
0960	550.0010 PRE-BORING UNCONSOLIDATED MATERIALS	1,230.000 LF	.		.	
0970	550.0500 PILE POINTS	460.000 EACH	.		.	
0980	550.1100 PILING STEEL HP 10-INCH X 42 LB	1,360.000 LF	.		.	
0990	550.1120 PILING STEEL HP 12-INCH X 53 LB	24,420.000 LF	.		.	
1000	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A	483.000 LF	.		.	
1010	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A	10,729.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1020	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	2,457.000 LF	.		.	
1030	601.0551 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	388.000 LF	.		.	
1040	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R	811.000 LF	.		.	
1050	601.0600 CONCRETE CURB PEDESTRIAN	328.000 LF	.		.	
1060	602.0405 CONCRETE SIDEWALK 4-INCH	46,102.000 SF	.		.	
1070	602.0415 CONCRETE SIDEWALK 6-INCH	6,998.000 SF	.		.	
1080	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	787.000 SF	.		.	
1090	602.1500 CONCRETE STEPS	115.000 SF	.		.	
1100	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	420.000 LF	.		.	
1110	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	420.000 LF	.		.	
1120	604.0600 SLOPE PAVING SELECT CRUSHED MATERIAL	735.000 SY	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1130	606.0200 RIPRAP MEDIUM	60.000				
		CY	.		.	
1140	606.0300 RIPRAP HEAVY	1,612.000				
		CY	.		.	
1150	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	3,050.000				
		LF	.		.	
1160	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	900.000				
		LF	.		.	
1170	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	1,478.000				
		LF	.		.	
1180	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	390.000				
		LF	.		.	
1190	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	121.000				
		LF	.		.	
1200	611.0420 RECONSTRUCTING MANHOLES	4.000				
		EACH	.		.	
1210	611.0530 MANHOLE COVERS TYPE J	31.000				
		EACH	.		.	
1220	611.0612 INLET COVERS TYPE C	9.000				
		EACH	.		.	
1230	611.0624 INLET COVERS TYPE H	90.000				
		EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1240	611.0627 INLET COVERS TYPE HM	5.000 EACH	.		.	
1250	611.0652 INLET COVERS TYPE T	5.000 EACH	.		.	
1260	611.2004 MANHOLES 4-FT DIAMETER	39.000 EACH	.		.	
1270	611.2006 MANHOLES 6-FT DIAMETER	9.000 EACH	.		.	
1280	611.3225 INLETS 2X2.5-FT	3.000 EACH	.		.	
1290	611.3230 INLETS 2X3-FT	82.000 EACH	.		.	
1300	611.8110 ADJUSTING MANHOLE COVERS	13.000 EACH	.		.	
1310	611.8115 ADJUSTING INLET COVERS	4.000 EACH	.		.	
1320	611.8120.S COVER PLATES TEMPORARY	3.000 EACH	.		.	
1330	611.9800.S PIPE GRATES	1.000 EACH	.		.	
1340	612.0106 PIPE UNDERDRAIN 6-INCH	1,026.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
1350	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH	35.000 LF	.	.
1360	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH	605.000 LF	.	.
1370	612.0600 UNDERDRAIN TRENCH	717.000 LF	.	.
1380	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	1.000 EACH	.	.
1390	614.0305 STEEL PLATE BEAM GUARD CLASS A	19.000 LF	.	.
1400	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS	50.000 LF	.	.
1410	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	1.000 EACH	.	.
1420	614.2500 MGS THRIE BEAM TRANSITION	80.000 LF	.	.
1430	614.2610 MGS GUARDRAIL TERMINAL EAT	2.000 EACH	.	.
1440	616.0700.S FENCE SAFETY	3,100.000 LF	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1450	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 4075-28-71	1.000 EACH	.		.	
1460	619.1000 MOBILIZATION	1.000 EACH	.		.	
1470	620.0300 CONCRETE MEDIAN SLOPED NOSE	972.000 SF	.		.	
1480	624.0100 WATER	216.000 MGAL	.		.	
1490	625.0100 TOPSOIL	40,668.000 SY	.		.	
1500	627.0200 MULCHING	14,169.000 SY	.		.	
1510	628.1504 SILT FENCE	5,715.000 LF	.		.	
1520	628.1520 SILT FENCE MAINTENANCE	2,955.000 LF	.		.	
1530	628.1905 MOBILIZATIONS EROSION CONTROL	21.000 EACH	.		.	
1540	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	15.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

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			DOLLARS	CTS	DOLLARS	CTS
1550	628.2006 EROSION MAT URBAN CLASS I TYPE A	10,637.000 SY	.		.	
1560	628.2023 EROSION MAT CLASS II TYPE B	15,872.000 SY	.		.	
1570	628.6510 SOIL STABILIZER TYPE B	1.363 ACRE	.		.	
1580	628.7005 INLET PROTECTION TYPE A	145.000 EACH	.		.	
1590	628.7010 INLET PROTECTION TYPE B	13.000 EACH	.		.	
1600	628.7015 INLET PROTECTION TYPE C	159.000 EACH	.		.	
1610	628.7020 INLET PROTECTION TYPE D	69.000 EACH	.		.	
1620	628.7504 TEMPORARY DITCH CHECKS	119.000 LF	.		.	
1630	628.7555 CULVERT PIPE CHECKS	5.000 EACH	.		.	
1640	628.7560 TRACKING PADS	4.000 EACH	.		.	
1650	628.7570 ROCK BAGS	224.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
1660	629.0210 FERTILIZER TYPE B	33.300 CWT	.	.
1670	630.0120 SEEDING MIXTURE NO. 20	398.000 LB	.	.
1680	630.0130 SEEDING MIXTURE NO. 30	246.000 LB	.	.
1690	630.0140 SEEDING MIXTURE NO. 40	285.000 LB	.	.
1700	630.0200 SEEDING TEMPORARY	501.000 LB	.	.
1710	632.0101 TREES (SPECIES, ROOT, SIZE) 0001. GINKGO PRINCETON SENTRY B&B 2 1/2 INCH CAL	3.000 EACH	.	.
1720	632.0101 TREES (SPECIES, ROOT, SIZE) 0002. LINDEN AMERICAN SENTRY B&B 2 1/2 INCH CAL	2.000 EACH	.	.
1730	632.0101 TREES (SPECIES, ROOT, SIZE) 0003. MAPLE FREEMAN 'ARMSTRONG' B&B 2 1/2 INCH CAL	15.000 EACH	.	.
1740	632.0101 TREES (SPECIES, ROOT, SIZE) 0004. MAPLE MORTON MIYABE B&B 2 1/2 INCH CAL	3.000 EACH	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
1750	632.0101 TREES (SPECIES, ROOT, SIZE) 0005. OAK REGAL PRINCE B&B 2 1/2 INCH CAL	12.000 EACH	.	.
1760	632.0101 TREES (SPECIES, ROOT, SIZE) 0006. CRABAPPLE GOLDEN RAINDROPS B&B 2 INCH CAL	2.000 EACH	.	.
1770	632.0101 TREES (SPECIES, ROOT, SIZE) 0007. CRABAPPLE GOLDEN SPRING SNOW B&B 2 INCH CAL	3.000 EACH	.	.
1780	632.0101 TREES (SPECIES, ROOT, SIZE) 0008. HAWTHORN WASHINGTON B&B 2 INCH CAL	4.000 EACH	.	.
1790	632.0101 TREES (SPECIES, ROOT, SIZE) 0009. LILAC IVORY SILK B&B 2 INCH CAL	6.000 EACH	.	.
1800	632.0101 TREES (SPECIES, ROOT, SIZE) 0010. PEAR AUTUMN BLAZE B&B 2 INCH CAL	7.000 EACH	.	.
1810	632.0101 TREES (SPECIES, ROOT, SIZE) 0011. REDCEDAR EASTERN B&B 60 INCH HT	6.000 EACH	.	.
1820	632.0101 TREES (SPECIES, ROOT, SIZE) 0012. ARBORVITAE TECHN Y B&B 60 INCH HT	3.000 EACH	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1830	632.0101 TREES (SPECIES, ROOT, SIZE) 0013. SPRUCE WHITE B&B 60 INCH HT	2.000 EACH	.		.	
1840	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	24.000 EACH	.		.	
1850	633.1100 DELINEATORS TEMPORARY	13.000 EACH	.		.	
1860	633.5200 MARKERS CULVERT END	9.000 EACH	.		.	
1870	634.0614 POSTS WOOD 4X6-INCH X 14-FT	69.000 EACH	.		.	
1880	634.0616 POSTS WOOD 4X6-INCH X 16-FT	36.000 EACH	.		.	
1890	634.0812 POSTS TUBULAR STEEL 2X2-INCH X 12-FT	4.000 EACH	.		.	
1900	637.2210 SIGNS TYPE II REFLECTIVE H	855.120 SF	.		.	
1910	637.2220 SIGNS TYPE II REFLECTIVE SH	20.250 SF	.		.	
1920	637.2230 SIGNS TYPE II REFLECTIVE F	105.890 SF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
1930	638.2602 REMOVING SIGNS TYPE II	110.000 EACH	.	.
1940	638.3000 REMOVING SMALL SIGN SUPPORTS	43.000 EACH	.	.
1950	642.5201 FIELD OFFICE TYPE C	1.000 EACH	.	.
1960	643.0100 TRAFFIC CONTROL (PROJECT) 01. 4075-28-71	1.000 EACH	.	.
1970	643.0100 TRAFFIC CONTROL (PROJECT) 02. 4095-10-72	1.000 EACH	.	.
1980	643.0300 TRAFFIC CONTROL DRUMS	5,100.000 DAY	.	.
1990	643.0410 TRAFFIC CONTROL BARRICADES TYPE II	2,575.000 DAY	.	.
2000	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	13,308.000 DAY	.	.
2010	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	42.000 EACH	.	.
2020	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	42.000 EACH	.	.
2030	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	26,040.000 DAY	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
2040	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	1,051.000 DAY	.	.
2050	643.0900 TRAFFIC CONTROL SIGNS	26,694.000 DAY	.	.
2060	643.1050 TRAFFIC CONTROL SIGNS PCMS	56.000 DAY	.	.
2070	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 01. 4075-28-71	1.000 EACH	.	.
2080	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 02. 4095-10-72	1.000 EACH	.	.
2090	643.3000 TRAFFIC CONTROL DETOUR SIGNS	9,922.000 DAY	.	.
2100	645.0112 GEOTEXTILE FABRIC TYPE DF SCHEDULE B	451.000 SY	.	.
2110	645.0120 GEOTEXTILE FABRIC TYPE HR	2,549.000 SY	.	.
2120	645.0130 GEOTEXTILE FABRIC TYPE R	50.000 SY	.	.
2130	646.0106 PAVEMENT MARKING EPOXY 4-INCH	13,997.000 LF	.	.
2140	646.0600 REMOVING PAVEMENT MARKINGS	1,468.000 LF	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2150	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	110.000 LF	.		.	
2160	647.0110 PAVEMENT MARKING RAILROAD CROSSINGS EPOXY	3.000 EACH	.		.	
2170	647.0456 PAVEMENT MARKING CURB EPOXY	100.000 LF	.		.	
2180	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY	9.000 EACH	.		.	
2190	647.0656 PAVEMENT MARKING PARKING STALL EPOXY	108.000 LF	.		.	
2200	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	329.000 LF	.		.	
2210	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	1,146.000 LF	.		.	
2220	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	795.000 LF	.		.	
2230	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	10,676.000 LF	.		.	
2240	649.2100 TEMPORARY RAISED PAVEMENT MARKERS	9.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2250	650.4000 CONSTRUCTION STAKING STORM SEWER	138.000 EACH	.		.	
2260	650.4500 CONSTRUCTION STAKING SUBGRADE	7,936.000 LF	.		.	
2270	650.5000 CONSTRUCTION STAKING BASE	2,817.000 LF	.		.	
2280	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	4,113.000 LF	.		.	
2290	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-5-381	LUMP	LUMP		.	
2300	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. R-5-110	LUMP	LUMP		.	
2310	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03.R-5-111	LUMP	LUMP		.	
2320	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 04. R-5-112	LUMP	LUMP		.	
2330	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 05. R-5-113	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS CTS	BID AMOUNT DOLLARS CTS
2340	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	5,119.000 LF	.	.
2350	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 4075-28-71	LUMP	LUMP	.
2360	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 4075-28-71	LUMP	LUMP	.
2370	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 4095-10-72	LUMP	LUMP	.
2380	650.9920 CONSTRUCTION STAKING SLOPE STAKES	8,586.000 LF	.	.
2390	652.0125 CONDUIT RIGID METALLIC 2-INCH	84.000 LF	.	.
2400	652.0210 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH	190.000 LF	.	.
2410	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	6,340.000 LF	.	.
2420	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	1,630.000 LF	.	.
2430	653.0140 PULL BOXES STEEL 24X42-INCH	22.000 EACH	.	.

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20140708023PROJECT(S):
4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

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			DOLLARS	CTS	DOLLARS	CTS
2440	653.0222 JUNCTION BOXES 18X12X6-INCH	23.000 EACH	.		.	
2450	654.0105 CONCRETE BASES TYPE 5	16.000 EACH	.		.	
2460	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	2,400.000 LF	.		.	
2470	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG	10,110.000 LF	.		.	
2480	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG	13,632.000 LF	.		.	
2490	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG	9,088.000 LF	.		.	
2500	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. BRIDGE LIGHTING CABINET W	LUMP	LUMP		.	
2510	657.6005.S ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	11.000 EACH	.		.	
2520	690.0150 SAWING ASPHALT	2,579.000 LF	.		.	
2530	690.0250 SAWING CONCRETE	1,601.000 LF	.		.	

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WISC 2014269
WISC 2014270

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			DOLLARS	CTS	DOLLARS	CTS
2540	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT	26,000.000 DOL	1.00000		26000.00	
2550	715.0502 INCENTIVE STRENGTH CONCRETE STRUCTURES	55,000.000 DOL	1.00000		55000.00	
2560	999.1500.S CRACK AND DAMAGE SURVEY	LUMP	LUMP			.
2570	ASP.1T0A ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	2,400.000 HRS	5.00000		12000.00	
2580	ASP.1T0G ON-THE-JOB TRAINING GRADUATE AT \$5. 00/HR	6,360.000 HRS	5.00000		31800.00	
2590	SPV.0005 SPECIAL 01. SUBSOILING	1.363 ACRE	.		.	
2600	SPV.0035 SPECIAL 01. COLORING CONCRETE BUFF	93.000 CY	.		.	
2610	SPV.0035 SPECIAL 02. AGGREGATE FILTER	50.000 CY	.		.	
2620	SPV.0045 SPECIAL 01. TEMPORARY CROSSWALK ACCESS	503.000 DAY	.		.	
2630	SPV.0060 SPECIAL 01. FROST PROOF YARD HYDRANT, 6-FOOT	2.000 EACH	.		.	
2640	SPV.0060 SPECIAL 02. REMOVING COVER PLATE	3.000 EACH	.		.	

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4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

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			DOLLARS	CTS	DOLLARS	CTS
2650	SPV.0060 SPECIAL 03. ADJUSTING MANHOLE COVERS WITH RUBBER RINGS	8.000 EACH	.		.	
2660	SPV.0060 SPECIAL 04. ADJUSTING SANITARY MANHOLE COVER	19.000 EACH	.		.	
2670	SPV.0060 SPECIAL 05. ADJUSTING WATER SERVICE CURB STOP	43.000 EACH	.		.	
2680	SPV.0060 SPECIAL 06. ADJUSTING WATER VALVE BOX	20.000 EACH	.		.	
2690	SPV.0060 SPECIAL 07. CLEARANCE GAUGE	2.000 EACH	.		.	
2700	SPV.0060 SPECIAL 08. FLEXIBLE COUPLING	10.000 EACH	.		.	
2710	SPV.0060 SPECIAL 09. SUN WETLAND PLANTING	1,650.000 EACH	.		.	
2720	SPV.0060 SPECIAL 10. WETLAND TREE PLANTING	500.000 EACH	.		.	
2730	SPV.0060 SPECIAL 11. WETLAND SHRUB PLANTING	620.000 EACH	.		.	
2740	SPV.0060 SPECIAL 12. WILDLIFE STRUCTURES	20.000 EACH	.		.	

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WISC 2014269
WISC 2014270

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			DOLLARS	CTS	DOLLARS	CTS
2750	SPV.0060 SPECIAL 13. SPECIAL SIGN POST AND BRACKET	9.000 EACH	.		.	
2760	SPV.0060 SPECIAL 14. CATCH BASIN SPECIAL	2.000 EACH	.		.	
2770	SPV.0060 SPECIAL 15. ANCHOR BOLT ASSEMBLY SIGN BRIDGE	2.000 EACH	.		.	
2780	SPV.0060 SPECIAL 16. ANCHOR BOLT ASSEMBLY SIGNS	9.000 EACH	.		.	
2790	SPV.0060 SPECIAL 17. ANCHOR BOLT COVER SHROUD	2.000 EACH	.		.	
2800	SPV.0060 SPECIAL 18. PAVEMENT MARKING GROOVED CONTRAST PREFORMED THERMOPLASTIC ARROWS, TYPE 2	1.000 EACH	.		.	
2810	SPV.0060 SPECIAL 19. PAVEMENT MARKING GROOVED CONTRAST PREFORMED THERMOPLASTIC WORDS	3.000 EACH	.		.	
2820	SPV.0060 SPECIAL 20. BRIDGE LIGHTING PULL BOXES	4.000 EACH	.		.	
2830	SPV.0060 SPECIAL 21. BRIDGE LIGHTING CONTROL CABINET	1.000 EACH	.		.	
2840	SPV.0060 SPECIAL 22. CONCRETE CONTROL CABINET BASE	2.000 EACH	.		.	

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WISC 2014269
WISC 2014270

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			DOLLARS	CTS	DOLLARS	CTS
2850	SPV.0060 SPECIAL 23. LIGHTING CONTROL CABINET BLACK	2.000 EACH	.		.	
2860	SPV.0060 SPECIAL 24. TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE BLACK	16.000 EACH	.		.	
2870	SPV.0060 SPECIAL 25. POLES TYPE 5 (ALUMINUM) BLACK	16.000 EACH	.		.	
2880	SPV.0060 SPECIAL 26. LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT BLACK	16.000 EACH	.		.	
2890	SPV.0060 SPECIAL 27. BRIDGE LIGHTING UNITS	11.000 EACH	.		.	
2900	SPV.0060 SPECIAL 28. LED LUMINAIRE, LED-B BLACK	16.000 EACH	.		.	
2910	SPV.0060 SPECIAL 29. PILE DYNAMIC ANALYZER (PDA) TESTING	22.000 EACH	.		.	
2920	SPV.0060 SPECIAL 30. PILE DYNAMIC ANALYZER (PDA) RESTRIKING	22.000 EACH	.		.	
2930	SPV.0060 SPECIAL 31. CASE PILE WAVE ANALYSIS PROGRAM (CAPWAP) EVALUATION	11.000 EACH	.		.	
2940	SPV.0060 SPECIAL 32. SEDIMENTATION BASIN	2.000 EACH	.		.	

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4075-28-71
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WISC 2014269
WISC 2014270

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			DOLLARS	CTS	DOLLARS	CTS
2950	SPV.0075 SPECIAL 01. STREET SWEEPING	350.000 HRS	.		.	
2960	SPV.0075 SPECIAL 02. PRE-BORING UNCONSOLIDATED MATERIAL OBSTRUCTION B-5-381	3.000 HRS	.		.	
2970	SPV.0075 SPECIAL 03. PRE-BORING UNCONSOLIDATED MATERIAL OBSTRUCTION R-5-110	2.000 HRS	.		.	
2980	SPV.0085 SPECIAL 01. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	2,090.000 LB	.		.	
2990	SPV.0085 SPECIAL 02. MYCORRHIZAL INOCULANT	81.800 LB	.		.	
3000	SPV.0085 SPECIAL 03. SUN WETLAND SEEDING	9.400 LB	.		.	
3010	SPV.0085 SPECIAL 04. SHADE WETLAND SEEDING	4.200 LB	.		.	
3020	SPV.0090 SPECIAL 01. SAW CUT CONCRETE	202.000 LF	.		.	
3030	SPV.0090 SPECIAL 02. CONCRETE CURB AND GUTTER HES 30-INCH TYPE A	110.000 LF	.		.	
3040	SPV.0090 SPECIAL 03. FENCE DECORATIVE BRIDGE	210.000 LF	.		.	

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4075-28-71
4095-10-72FEDERAL ID(S):
WISC 2014269
WISC 2014270

CONTRACTOR : _____

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3050	SPV.0090 SPECIAL 04. HEAVY DUTY SILT FENCE LF	2,290.000	.	.
3060	SPV.0090 SPECIAL 05. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE LF	101.000	.	.
3070	SPV.0090 SPECIAL 06. PAVEMENT MARKING GROOVED CONTRAST PREFORMED THERMOPLASTIC CROSSWALK LF	501.000	.	.
3080	SPV.0105 SPECIAL 01. CONCRETE PAVEMENT JOINT LAYOUT LUMP	LUMP	LUMP	.
3090	SPV.0105 SPECIAL 02. RAILING STEEL TYPE C2 GALVANIZED B-5-381 LUMP	LUMP	LUMP	.
3100	SPV.0105 SPECIAL 03. RAILING STEEL TYPE C2 GALVANIZED R-5-110 LUMP	LUMP	LUMP	.
3110	SPV.0105 SPECIAL 04. RAILING STEEL TYPE C2A GALVANIZED PEDESTRAIN R-5-111 LUMP	LUMP	LUMP	.
3120	SPV.0105 SPECIAL 05. RAILING STEEL TYPE C2B GALVANIZED PEDESTRIAN R-5-112 LUMP	LUMP	LUMP	.
3130	SPV.0105 SPECIAL 06. RAILING STEEL TYPE C2C GALVANIZED PEDESTRIAN R-5-113 LUMP	LUMP	LUMP	.

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WISC 2014269
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3140	SPV.0105 SPECIAL 07. OPEN DRAIN DRIP PLATE	LUMP	LUMP	.
3150	SPV.0105 SPECIAL 08. PEDESTRIAN ACCESS COVER PLATE	LUMP	LUMP	.
3160	SPV.0105 SPECIAL 09. TRAFFIC CONTROL FOR THE FOX RIVER RECREATIONAL VEHICLES	LUMP	LUMP	.
3170	SPV.0105 SPECIAL 10. TEMPORARY HAUL ROAD ACCESS FOR STRUCTURE CONSTRUCTION	LUMP	LUMP	.
3180	SPV.0105 SPECIAL 11. TEMPORARY RIVER ACCESS FOR STRUCTURE B-05-381	LUMP	LUMP	.
3190	SPV.0105 SPECIAL 12. TEMPORARY RIVER ACCESS FOR STRUCTURE B-05-736	LUMP	LUMP	.
3200	SPV.0105 SPECIAL 13. NAVIGATION LIGHTS AND AIDS	LUMP	LUMP	.
3210	SPV.0105 SPECIAL 14. METER BREAKER PEDESTAL BLACK (CTH DD ROUNDAABOUT)	LUMP	LUMP	.
3220	SPV.0105 SPECIAL 15. METER BREAKER PEDESTAL BLACK (TURNER ST ROUNDAABOUT)	LUMP	LUMP	.

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			DOLLARS	CTS	DOLLARS	CTS
3230	SPV.0105 SPECIAL 16. ELECTRICAL SERVICE METER BREAKER PEDESTAL BLACK AT CTH DD ROUNDABOUT	LUMP	LUMP			.
3240	SPV.0105 SPECIAL 17. ELECTRICAL SERVICE METER BREAKER PEDESTAL BLACK AT TURNER ST ROUNDABOUT	LUMP	LUMP			.
3250	SPV.0105 SPECIAL 18. SIESMOGRAPH URBAN	LUMP	LUMP			.
3260	SPV.0105 SPECIAL 19. CONSTRUCTION STAKING TEMPORARY CAUSEWAY A	LUMP	LUMP			.
3270	SPV.0105 SPECIAL 20. CONSTRUCTION STAKING TEMPORARY CAUSEWAY B	LUMP	LUMP			.
3280	SPV.0105 SPECIAL 21. CONSTRUCTION STAKING TEMPORARY CAUSEWAY C	LUMP	LUMP			.
3290	SPV.0105 SPECIAL 22. CONSTRUCTION STAKING TEMPORARY CAUSEWAY D	LUMP	LUMP			.
3300	SPV.0105 SPECIAL 23. WETLAND RESTORATION SURVEY	LUMP	LUMP			.
3310	SPV.0120 SPECIAL 01. WATER FOR SEEDED AREAS	914.000 MGAL		.		.
3320	SPV.0165 SPECIAL 01. STAINING CONCRETE	1,325.000 SF		.		.

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			DOLLARS	CTS	DOLLARS	CTS
3330	SPV.0165 SPECIAL 02. STAMPED CONCRETE SIDEWALK 4-INCH	7,518.000 SF	.		.	
3340	SPV.0165 SPECIAL 03. MULCH SHREDDED BARK	2,355.000 SF	.		.	
3350	SPV.0165 SPECIAL 04. INSULATION BOARD, 2-INCH	160.000 SF	.		.	
3360	SPV.0165 SPECIAL 05. QUARRY STONE WALL	90.000 SF	.		.	
3370	SPV.0165 SPECIAL 06. REMOVE AND SALVAGE ROCK WALL	630.000 SF	.		.	
3380	SPV.0180 SPECIAL 01. CONCRETE 5-INCH DECORATIVE	148.000 SY	.		.	
3390	SPV.0180 SPECIAL 02. BROOM FINISH CONCRETE PAVEMENT CROSSWALK	647.000 SY	.		.	
3400	SPV.0180 SPECIAL 03. GEOGRID REINFORCEMENT	2,700.000 SY	.		.	
3410	SPV.0195 SPECIAL 01. EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SEDIMENT	100.000 TON	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	

PLEASE ATTACH SCHEDULE OF ITEMS HERE