HIGHWAY WORK PROPOSAL

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

Proposal Number: 001

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Rock	1005-10-77	WISC 2019001	Illinois State Line - Madison; Ush 14 Int North To Kennedy Road	IH 039
Rock	1005-10-83	N/A	Illinois State Line - Madison; Ush 14 Int North To Kennedy Road	IH 039
Rock	5569-00-71	WISC 2019004	Humes Road, C Janesville; Lexington Street To Pontiac Drive	USH 014
Rock	1005-10-87	WISC 2019002	Illinois State Line - Madison; Ush 14 Interchange	IH 039

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: $1,000,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: December 11, 2018 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time December 23, 2023	
Assigned Disadvantaged Business Enterprise Goal 10%	This contract is subject to federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)	(Bidder Signature)
(Print or Type Name, Notary Public, State Wisconsin)	(Print or Type Bidder Name)
(Date Commission Expires)	(Bidder Title)

Notary Seal

Type of Work: For Department Use Only

Grading, Base, Concrete Pavement, Asphalt Pavement, Bridge Construction, Noise Barrier Walls, Retaining Walls, Culvert Pipe, Storm Sewer, Curb and Gutter, Sidewalk, Concrete Barrier, Beam Guard, Signs, Sign Bridges, Overhead Sign Supports, Pavement Markings, Fence, Plantings, Traffic Signals, Street Lighting, ITS, Ramp Closure Gates, Water Main

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

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

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

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

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

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

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1005-10-77, Illinois State Line – Madison, USH 14 Int North to Kennedy Road, IH 39/90; ID 1005-10-83, Illinois State Line – Madison, USH 14 Int North to Kennedy Road, IH 39/90; ID 1005-10-87, Illinois State Line – Madison, USH 14 Interchange, USH 14; ID 5569-00-71, Humes Road, City of Janesville, Lexington Street to Pontiac Drive, USH 14 in Rock 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, 2019 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 (20180628)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate, HMA pavement, concrete pavement, concrete barrier, guardrail, Structures B-53-338/339/341/342/ 343/344/345/346/347/371, R-53-42/43/44/45/46/47/48/49/53/54/55/56/57/58/59, N-53-17/18/19/21, S-53-71/72/78/79/80/81/82/83/ 84/85/86/87/88/89/90/91/92/93/94/95/101, culvert pipe, storm sewer, infiltration basins, concrete curb and gutter, concrete sidewalk, permanent signing, pavement marking, lighting, signals, ITS, native prairie seeding, tree/shrub installation, vegetation follow-up surveillance and care 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. Mandatory Pre-Bid Meeting.

Add the following to standard spec 102.3.1:

Prospective bidders are required to attend a mandatory pre-bid meeting on Wednesday, November 14, 2018 from 1:00 PM – 2:30 PM at 111 Interstate Blvd, Edgerton, WI 53534.

No meeting minutes will be prepared. Issues discovered at the meeting will be handled by addendum.

stp-102-010 (20150630)

4. Prosecution and Progress.

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

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

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

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment. Included in this "Prosecution and Progress" special provision are interim and final completion dates. These dates indicate that work efforts will possibly require multiple or concurrent controlling operations to occur at the same time. This information is included to assist the contractor and its subcontractors and shall not be interpreted as a demonstration of specified means and methods or work periods other than intermediate and completion dates. Indicate on the proposed schedule of operations that a large force and adequate equipment will be needed to assure that the work will be completed within the established contract time.

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

Winter weather work, excavation for frozen ground, high ground water and dewatering during winter months shall not be considered adverse weather delays to construction. Cost of dewatering is considered incidental to construction.

Anticipate cold weather and early spring concrete paving and ancillary concrete work (curb, median barrier, etc.). Plan to heat aggregates and water for mixes and that the heating of the aggregate and water is considered incidental to those concrete items. There will be no adverse weather delay for cold weather construction.

Conform the schedule of operations to the construction staging as shown in the traffic control plans and as described herein unless modifications to the schedule are approved in writing by the engineer.

Northern Long-eared Bat (*Myotis septentrionalis*)

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

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

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

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

Native Prairie Seeding and Tree/Shrub Planting and Care

This contract contains native prairie seeding and tree/shrub installation outside the highway construction project limits.

The contractor is advised that there will be multiple mobilizations, at multiple sites within and outside the highway construction limits, for native prairie seeding and tree/shrub installation. The department will make no additional payment for said mobilizations.

The department will locate and mark the native seed planting beds and tree/shrub locations. The department will also locate and mark the sign locations for the native prairie seed planting areas. Notify the Corridor Vegetation Inspector 14 days in advance of any planting work or any native seed signing work to allow adequate locating time.

Notify the Corridor Vegetation Inspector at least 3 days prior to the planned delivery date of planting stock and replacement planting stock to allow for inspection scheduling.

Due to the multi-year duration of this project, vegetation planting shall be phased by year according to the following table:

Phase	Location	Planting Availability
Phase 1 1005-10-77	All planting sites south of and including the Mount. Zion Avenue crossing; Park & Ride Lot site.	Available after May 19, 2020
Phase 2 1005-10-77	All planting sites north of the Mount Zion Avenue crossing; STH 26/Milton Avenue planting sites; Deerfield Drive sites.	Available Spring 2022.
Phase 3 1005-10-87	USH 14 planting sites.	Available Fall 2022.

For Phases 1 and 2 native prairie seed and tree/shrub planting work will not be allowed at sites where there is active highway construction, or where there will be an upcoming highway construction contract. Prior to March 1 of every year, verify with the Corridor Vegetation Inspector the availability of planting sites.

A Schedule of Operations

Project 1005-10-77
The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Place temporary barrier and pavement marking for Stage 2 bi-directional traffic.
- Stage 2 – Reconstruct IH 39/90 northbound.
- Stage 3 – Construct IH 39/90 northbound inside shoulder, median and crossovers and place temporary barrier and pavement marking for Stage 4 bi-directional traffic.
- Stage 4 – Reconstruct IH 39/90 southbound and STH 26.
- Stage 5 – Complete IH 39/90 median.

Project 1005-10-83
The department anticipates that the watermain improvements may be constructed during the following stages of the IH 39/90 staging under project 1005-10-77:

- Stage 2 – construct Ryan Road watermain.
- Stage 4, Phase 2 – complete Ryan Road watermain.

Project 1005-10-87/5569-00-71
USH 14 will not be reconstructed until after Stage 5 of IH 39/90 is completed. The following staging is separate than the IH 39/90 staging. The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Construct crossovers and temporary widening for Stage 2 bi-directional traffic.
- Stage 2 – Reconstruct USH 14 eastbound from Pontiac Drive to Deerfield Drive. Begin reconstruction of USH 14 from STH 26 to Pontiac Drive.
- Stage 3 – Reconstruct USH 14 median from Pontiac Drive to Deerfield Drive. Continue reconstruction of USH 14 from STH 26 to Pontiac Drive.
- Stage 4 – Reconstruct USH 14 westbound from Pontiac Drive to Deerfield Drive. Complete reconstruction of USH 14 from STH 26 to Pontiac Drive.
- Stage 5 – Complete USH 14 median and ramp terminals.

A 12-foot wide emergency access route, with the work zone, shall be maintained during construction at Overlook Drive.

The 12-foot wide emergency access route shall be free of all obstruction. The emergency access route shall be graded and maintained so that the route is drivable for an emergency vehicle. Under limited construction operations (such as concrete paving operations) when access cannot be maintained, the construction engineer shall be provided a ten day notice to allow time for coordination with all emergency responders.

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, lighting, tubular marker posts, barricades, and traffic control drums for the stage are in place, temporary signals for the stage are in place and operational, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer.

B Contractor Coordination

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

Hold progress meetings once a week for Projects 1005-10-77, 1005-10-83, 1005-10-87 and 5569-00-71. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work expected to begin within the next two weeks are to attend and provide a written schedule of the next week(s)' operations. Include begin and end dates of specific prime and subcontractor work operations including lane closures and traffic switches. Invite utilities, Town of Harmony, City of Janesville, City of Janesville Transit, Rock County Sheriff and Wisconsin State Patrol representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' schedule, utility conflicts and relocation schedule, evaluation of progress and pay items, and making revisions if necessary. Plans and

specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

Coordination with projects 1003-10-84/1005-10-76 and 1005-10-78 will be required for traffic control staging.

Coordination with projects 1003-10-81, 1003-10-76, 1003-10-84 and 1005-10-76 will be required for ITS work. The contractor will be responsible for restoring areas that are disturbed within these projects.

Based on the progress meeting, if the engineer requests a new revised schedule, submit it within seven calendar days. Failure to submit a new schedule within 7 days shall result in the engineer holding pay requests until received.

C Work Restrictions

Project 1005-10-77
Do not close traffic lanes or shoulders on IH 39/90 outside the allowed time periods specified in the Traffic article of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Shift IH 39/90 traffic to their respective locations as shown in Stage 2, Phase 1 prior to 12:01 AM on April 1, 2019. This IH 39/90 traffic shift will not be allowed prior to 5:00 AM on March 15, 2019, unless approved by the engineer. Coordination with project 1005-10-76 will be required for this traffic shift.

The IH 39/90 northbound entrance ramp from STH 26 will be allowed to be closed for 125 consecutive calendar days during Stage 2-Phase 1 for the reconstruction of the ramp and Structure B-53-345, R-53-56/57 and the construction of retaining wall R-53-55. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The IH 39/90 northbound exit ramp to USH 14 will be allowed to be closed for 2 consecutive calendar days during Stage 2-Phase 1 for the construction of the temporary ramp connection. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The IH 39/90 northbound entrance ramp from USH 14 will be allowed to be closed for 1 calendar day during Stage 2-Phase 1 for the placement of temporary storm sewer at Station 929+20'HA'. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

Closure of the IH 39/90 northbound entrance ramp from USH 14 will not be allowed while the IH 39/90 northbound entrance ramp from STH 26 is closed.

USH 14 westbound will be allowed to be closed for 2 nights during Stage 2-Phase 1 for the placement of the culvert pipes at Station 246+72'HEA' and 246+79'HEA'. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

USH 14 eastbound will be allowed to be closed for 2 nights during Stage 2-Phase 1 for the placement of the culvert pipes at Station 246+72'HEA' and 246+79'HEA'. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Closure of USH 14 westbound and USH 14 eastbound will not be allowed simultaneously.

Kennedy Road will be allowed to be closed for 100 consecutive calendar days during Stage 2-Phase 1 for the reconstruction of the roadway, removal of the existing IH 39/90 northbound bridge over Kennedy Road and construction of B-53-347, R-53-58 and R-53-59. Do not reopen Kennedy Road until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen Kennedy Road until all signs, barrels, barricades, and traffic control

devices required to close Kennedy Road are covered, moved, or removed. Maintain 15-feet width on Kennedy Road at all times for emergency vehicle access.

Do not place the IH 39/90 northbound concrete pavement from Structure B-53-347 to the end of the project until Spring 2020.

The IH 39/90 northbound exit ramp to USH 14 will be allowed to be closed for 2 consecutive calendar days during Stage 2-Phase 2 for the construction of the temporary ramp terminal. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The IH 39/90 northbound entrance ramp from USH 14 and the IH 39/90 northbound exit ramp to STH 26 will be allowed to be closed concurrently for 90 consecutive calendar days during Stage 2-Phase 3 and 4 for the reconstruction of the ramps and construction of Structure B-53-341 and retaining walls R-53-48 and R-53-49. Do not reopen the ramps until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramps until all signs, barrels, barricades, and traffic control devices required to close the ramps are covered, moved, or removed. Coordinate the reopening of the ramps to coincide with the traffic shift to Stage 3.

Complete all work necessary to shift IH 39/90 traffic to their respective locations as shown in Stage 3, prior to 12:01 AM on July 18, 2020. Coordination with project 1005-10-78 will be required for the Stage 3 traffic shift.

The IH 39/90 southbound entrance ramp from USH 14 will be allowed to be closed for 2 consecutive calendar days during Stage 3 for the construction of the temporary ramp terminal. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

Complete all work necessary to shift IH 39/90 traffic to their respective locations as shown in Stage 4, Phase 1, prior to 12:01 AM on September 1, 2020. Coordination with project 1005-10-78 will be required for the Stage 4, Phase 1 traffic shift.

The IH 39/90 southbound entrance ramp from STH 26 will be allowed to be closed for 375 consecutive calendar days during Stage 4 for the reconstruction of the ramp and Structure B-53-371 and the construction of retaining walls R-53-48 and R-53-49. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The IH 39/90 southbound exit ramp to USH 14 will be allowed to be closed for 7 consecutive calendar days during Stage 4-Phase 1 for the reconstruction of the ramp. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

Kennedy Road will be allowed to be closed for 60 consecutive calendar days during Stage 4-Phase 1 and 2 for the reconstruction of the roadway, removal of the existing IH 39/90 southbound bridge over Kennedy Road and construction of B-53-346, R-53-58 and R-53-59. Do not reopen Kennedy Road until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen Kennedy Road until all signs, barrels, barricades, and traffic control devices required to close Kennedy Road are covered, moved, or removed. Maintain 15-feet width on Kennedy Road at all times for emergency vehicle access.

The Ice Age Trail, parallel to Kennedy Road, will be allowed to be closed from the time Kennedy Road is closed during Stage 2-Phase 1 until Kennedy Road is reopened during Stage 4-Phase 2 for the reconstruction of the trail, removal of the existing IH 39/90 northbound and southbound bridges over Kennedy Road and construction of B-53-346, B-53-347, R-53-58 and R-53-59. Do not reopen the Ice Age Trail until all debris and equipment are removed from the traveled way. Do not reopen the Ice Age Trail until all signs, barrels, barricades, and traffic control devices required to close the Ice Age Trail are covered, moved, or removed.

Kennedy Road will be allowed to be closed for 1 calendar day during Stage 4-Phases 2 or 3 for the placement of girders for B-53-346. Do not reopen the roadway until all debris and equipment are removed from the traveled way of the local road and its clear zone as defined in the Traffic Article of these special

provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed.

STH 26 Stage 2 work will not be allowed to begin prior to 6:00 AM, March 14, 2021.

STH 26 southbound will be allowed to be closed for 2 nights during Stage 4-Phase 2A for the placement of the storm sewer pipe 514.2 to 514.3 and 519.3 to 519.4. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

STH 26 northbound will be allowed to be closed for 2 nights during Stage 4-Phase 2A for the placement of the storm sewer pipe 514.2 to 514.3 and 519.3 to 519.4. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

STH 26 southbound will be allowed to be closed for 1 night during Stage 4-Phase 2A for the placement of the storm sewer pipe 547.0 to 547.1. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

STH 26 northbound will be allowed to be closed for 1 night during Stage 4-Phase 2A for the placement of the storm sewer pipe 547.1 to 548.0. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Closure of STH 26 northbound and STH 26 southbound will not be allowed simultaneously.

The IH 39/90 northbound entrance ramp from STH 26 will be allowed to be closed for 14 consecutive calendar days during Stage 4-Phase 2B for the reconstruction of the ramp. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The left turn movement from STH 26 to the IH 39/90 northbound entrance ramp will be allowed to be closed for 14 consecutive calendar days during Stage 4-Phase 3 for the reconstruction of STH 26. Do not reopen the movement until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the movement until all signs, barrels, barricades, and traffic control devices required to close the movement are covered, moved, or removed.

The left turn movement from the IH 39/90 southbound exit ramp to STH 26 will be allowed to be closed for a total of 45 consecutive calendar days within the overall duration of time that includes Stage 4-Phase 2B, Stage 4-Phase 2C and Stage 4-Phase 3 for the reconstruction of STH 26. Do not reopen the movement until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the movement until all signs, barrels, barricades, and traffic control devices required to close the movement are covered, moved, or removed.

The right turn movement from the IH 39/90 southbound exit ramp to USH 14 will be allowed to be closed for 2 consecutive calendar days during Stage 4-Phase 3 for the reconstruction of the ramp. Do not reopen the movement until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the movement until all signs, barrels, barricades, and traffic control devices required to close the movement are covered, moved, or removed.

The left turn movement from the IH 39/90 northbound exit ramp to STH 26 will be allowed to be closed for 14 consecutive calendar days during Stage 4-Phase 3 for the reconstruction of STH 26. Do not reopen the movement until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the movement until all signs, barrels, barricades, and traffic control devices required to close the movement are covered, moved, or removed.

The IH 39/90 northbound exit ramp to STH 26 will be allowed to be closed for 14 consecutive calendar days during Stage 4-Phase 4 for the reconstruction of STH 26. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The east leg of Morse Street at the STH 26 and Morse Street intersection will be allowed to be closed for 14 consecutive calendar days during Stage 4-Phase 4B for the reconstruction of the intersection. Do not reopen the east leg of Morse Street until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the east leg of Morse Street until all signs, barrels, barricades, and traffic control devices required to close the east leg of Morse Street are covered, moved, or removed.

Complete all work necessary to open Ryan Road to through traffic by the end of Stage 4-Phase 2.

Complete all work necessary to shift IH 39/90 and STH 26 traffic to their respective locations as shown in Stage 5, prior to 12:01 AM on September 20, 2021. Coordination with project 1005-10-78 will be required for the Stage 5 traffic shift.

Complete construction operations on project 1005-10-77 and 1005-10-83 including all work except for native seeding and landscape planting along with their respective surveillance and care cycles, and reopen all inclusive roadways to all lanes of through traffic prior to 12:01 AM on October 23, 2021.

USH 14 and STH 26 will be allowed to be closed for 3 nights for the removal of each of the existing IH 39/90 bridges over the associated roadway. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

USH 14 and STH 26 will each be allowed to be closed for 2 nights for the placement of girders for Structures B-53-338, B-53-339, B-53-342, and B-53-343. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Closure of USH 14 will not be allowed while STH 26 is closed.

Closure of STH 26 will not be allowed while USH 14 is closed.

Work on STH 26 and USH 14 during winter months will not be allowed.

Lane closures on Deerfield Drive will not be allowed while USH 14 or STH 26 are closed.

Before placing compost and performing rototilling operations in the infiltration basins ensure all adjacent slopes have been established with permanent turf and mowed a minimum of two times.

Pile driving operations, temporary shoring placement and pavement breaking operations are not allowed from 10:00 PM to 6:00 AM.

Project 1005-10-83

Do not close traffic lanes or shoulders on Deerfield Drive outside the allowed time periods specified in the Traffic article of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Project 1005-10-87/5569-00-71

Do not close traffic lanes or shoulders on USH 14 during Stage 1 outside the allowed time periods specified in the Traffic article of these special provisions.

Access to the USH 14 work zone at the USH 14 and STH 26 intersection will only be allowed through ingress from STH 26 northbound, south of the intersection and egress to STH 26 northbound north of the intersection.

Stage 1 work will not be allowed to begin prior to 6:00 AM on September 7, 2021.

Stage 2 work will not be allowed to begin prior to 6:00 AM, March 14, 2022.

Lexington Drive will be allowed to be closed for 1 night during Stage 2-Phase 4 for the placement of the storm sewer pipe 301.4 to 301.5. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

The North Frontage Road, from Pontiac Drive, will be allowed to be closed for 2 nights during Stage 4-Phase 1 for the construction of the roadway. Coordinate closure time of North Frontage Road from Pontiac Drive with businesses along North Frontage Road. North Frontage Road closure will not be allowed until times are approved by businesses and engineer. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. Assessments per the Lane Rental Fee Assessment article will be charged for closures outside the allowed time periods.

Deerfield Drive southbound will be allowed to be closed north of the USH 14 intersection for 1 night during Stage 4-Phase 1 for the placement of the storm sewer pipe 346.0 to 347.0. Do not reopen the roadway until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the roadway until all signs, barrels, barricades, and traffic control devices required to close the roadway are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

The USH 14 westbound right turn movement at Deerfield Drive will be allowed to be closed for 14 consecutive calendar days during Stage 4, Phase 2 for the construction of the USH 14 right turn lane and island. Do not reopen the movement until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the movement until all signs, barrels, barricades, and traffic control devices required to close the movement are covered, moved, or removed.

Complete construction operations including all work except for native seeding and landscape planting along with their respective surveillance and care cycles, and reopen all inclusive roadways to through traffic as shown in Stage 5 traffic prior to 12:01 AM on August 23, 2022.

The IH 39/90 southbound entrance ramp from USH 14 and IH 39/90 southbound exit ramp to USH 14 will be allowed to be closed concurrently for 21 consecutive calendar days during Stage 5, Phase 1 and 2 for the construction of the USH 14 median and ramp terminals. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

The IH 39/90 northbound entrance ramp from USH 14 and IH 39/90 northbound exit ramp to USH 14 will be allowed to be closed concurrently for 21 consecutive calendar days during Stage 5, Phase 3 and 4 for the construction of the USH 14 median and ramp terminals. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, barrels, barricades, and traffic control devices required to close the ramp are covered, moved, or removed.

Complete construction operations on project 1005-10-87 and 5569-00-71 including all work except for native seeding along with their respective surveillance and care cycles, and reopen all inclusive roadways to all lanes of through traffic prior to 12:01 AM on November 4, 2022.

Complete native seeding prior to 12:01 AM on December 23, 2022.

Simultaneous closures of the IH 39/90 and USH 14 northbound and southbound ramps will not be allowed.

Work on USH 14 during winter months will not be allowed.

D Other Electrical Work Requirements

Lighting Requirements

The engineer shall authorize the removal of existing WisDOT and City of Janesville lighting systems components. Minimize the duration of lighting system outages to the greatest extent possible for USH 14, STH 26, and all local streets. If existing lighting system outside of project limits is to be out of service for more than 1 week provide temporary feeds to maintain lighting.

Lighting along the STH 26 Diverging Diamond interchange between Morse Street and Kettering Drive shall be completed and operable by the end of Stage 5 (1005-10-77).

Lighting along I-39 northbound C/D roadway shall be completed and operable by the end of Stage 2-Phase 4 (1005-10-77).

Obtain a City of Janesville Electrical Permit from the Housing, Building, and Development Services Division prior to performing any work. Pay all permit fees.

Traffic Signal Requirements

Install temporary wood poles, guys, and electrical service no later than November 15, 2021 at the intersections of Holiday Drive & Lexington Drive, and Morse Street & Ryan Road (1005-10-87).

Stage construction operations to ensure that traffic signal communications and detection systems as part of WisDOT's adaptive signal network remain in operation throughout construction. Coordinate system modifications a minimum of 1 month prior to any scheduled system down-time.

ITS Requirements

Stage the construction operations to ensure that the camera and wireless mesh node at USH 14 (CCTV-53-0024 and WMN-0063) are not down for more than 2 days.

Stage the construction operations to ensure that the Bluetooth sensor south of STH 26 (WDS-0016) is not down for more than 5 consecutive days.

Stage the construction operations to ensure that the camera and wireless mesh node at STH 26 (CCTV-53-0023 and WMN-0062) are not down for more than 2 days.

Coordinate construction and splicing to ensure fiber connection is not down for more than 2 days.

1005-10-87/5569-00-71

Stage the construction operations to ensure that the fiber optic connection to the ITS Communication Hub Building is not down for more than 5 consecutive days.

Construct new fiber optic connection on the south side of USH 14 before removing existing fiber optic connection. Coordinate construction and splicing to ensure fiber connection is not down for more than 2 days.

E Interim and Final Completion of Work

Supplement standard spec 108.11 as follows:

Project 1005-10-77
If the contractor fails to complete all work necessary to shift traffic to their respective location as shown in Stage 2, Phase 1 prior to 12:01 AM on April 1, 2019, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, April 1, 2019. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 northbound entrance ramp from STH 26 within 125 consecutive calendar days of closing the ramp during Stage 2-Phase 1, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 125 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 northbound exit ramp to USH 14 within 2 consecutive calendar days of closing the ramp during Stage 2-Phase 1, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 2 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 northbound entrance ramp from USH 14 within 1 calendar day of closing the ramp during Stage 2-Phase 1, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 1 calendar day. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen Kennedy Road within 100 consecutive calendar days of closing Kennedy Road during Stage 2-Phase 1, the department will assess the contractor $2070 in interim liquidated damages for each calendar day the local road remains closed beyond 100 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.

If the contractor fails to complete all work to reopen the IH 39/90 northbound exit ramp to USH 14 within 2 consecutive calendar days of closing the ramp during Stage 2-Phase 2, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 2 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 northbound entrance ramp from USH 14 and the IH 39/90 northbound exit ramp to STH 26 within 90 consecutive calendar days of closing the ramps during Stage 2-Phase 3 and 4, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramps remain closed beyond 90 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.

If the contractor fails to complete all work necessary to shift traffic to their respective location as shown in Stage 3 prior to 12:01 AM on July 18, 2020, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, July 18, 2020. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 southbound entrance ramp from USH 14 within 2 consecutive calendar days of closing the ramp during Stage 3, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 2 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to shift traffic to their respective location as shown in Stage 4, Phase 1 prior to 12:01 AM on September 1, 2020, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, September 1, 2020. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 southbound entrance ramp from STH 26 within 375 consecutive calendar days of closing the ramp during Stage 4, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 375 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 southbound exit ramp to USH 14 within 7 consecutive calendar days of closing the ramp during Stage 4-Phase 1, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 7 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen Kennedy Road within 60 consecutive calendar days of closing the roadway during Stage 4-Phase 1 and 2, the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the roadway remains closed beyond 60 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the roadway remains closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to reopen the Ice Age Trail prior to reopening Kennedy Road during Stage 4-Phase 2 the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the contract work remains incomplete after reopening Kennedy Road during Stage 4-Phase 2. An entire calendar day will be charged for any period of time within a calendar day that the Ice Age Trail remains closed beyond 12:01 AM. The department will assess this interim liquidated damage by the dollar under the administrative item Failing to Open Road to Traffic.

If the contractor fails to complete all work to reopen Kennedy Road within 1 calendar day of closing the roadway for the placement of girders for B-53-346 during Stage 4-Phases 2 or 3, the department will assess the contractor $2070 in interim liquidated damages for each calendar day the roadway remains closed beyond 1 calendar day. An entire calendar day will be charged for any period of time within a calendar day that the roadway remains closed beyond 12:01 AM.

If the contractor fails to complete all work to open Ryan Road to through traffic by the end of Stage 4-Phase 2, the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the road remains closed beyond the end of Stage 4-Phase 2. 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 assess this interim liquidated damage by the dollar under the administrative item Failing to Open Road to Traffic.

If the contractor fails to complete all work to reopen the IH 39/90 northbound entrance ramp from STH 26 within 14 consecutive calendar days of closing the ramp during Stage 4-Phase 2B, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the left turn movement from STH 26 to the IH 39/90 northbound entrance ramp within 14 consecutive calendar days of closing the left turn movement during Stage 4-Phase 3, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the movement remains closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the left turn movement from the IH 39/90 southbound exit ramp to STH 26 within 45 consecutive calendar days of closing the left turn movement during Stage 4-Phase 2B, Stage 4-Phase 2C and Stage 4-Phase 3, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the movement remains closed beyond 45 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the right turn movement from the IH 39/90 southbound exit ramp to USH 14 within 2 consecutive calendar days of closing the movement during Stage 4-Phase 3, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the movement remains closed beyond 2 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the left turn movement from the IH 39/90 northbound exit ramp to STH 26 within 14 consecutive calendar days of closing the left turn movement during Stage 4-Phase 3, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the movement remains closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 northbound exit ramp to STH 26 within 14 consecutive calendar days of closing the ramp during Stage 4-Phase 4, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the ramp remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the east leg of Morse Street at the STH 26 and Morse Street intersection within 14 consecutive calendar days of closing the east leg of Morse Street during Stage 4-Phase 4B, the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the east leg of Morse Street remains closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the east leg of Morse Street remains closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to shift traffic to their respective location as shown in Stage 5 prior to 12:01 AM on September 20, 2021, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, September 20, 2021. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all project work, with the exception of the native seeding and landscape planting along with their respective surveillance and care cycles, prior to 12:01 AM on October 23, 2021, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, October 23, 2021. 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.

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If the contractor fails to complete all work to reopen the USH 14 westbound right turn movement at Deerfield Drive within 14 consecutive calendar days of closing the movement during Stage 4, Phase 2 the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the ramps remain closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen all inclusive roadways to through traffic as shown in Stage 5 prior to 12:01 AM, August 23, 2022, the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the movement remains closed after 12:01 AM, August 23, 2022. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 southbound entrance ramp from USH 14 and IH 39/90 southbound exit ramp to USH 14 within 21 consecutive calendar days of closing the ramps during Stage 5, Phase 1 and 2 the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the ramps remain closed beyond 21 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all work to reopen the IH 39/90 northbound entrance ramp from USH 14 and the IH 39/90 northbound exit ramp to USH 14 within 21 consecutive calendar days of closing the ramps during Stage 5, Phase 3 and 4 the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the ramps remain closed beyond 21 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the movement remains closed beyond 12:01 AM.

If the contractor fails to complete all project work, with the exception of the native seeding along with their respective surveillance and care cycles, prior to 12:01 AM on November 4, 2022, the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, November 4, 2022. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all native seeding, prior to 12:01 AM on December 23, 2022, the department will assess the contractor $2,070 in interim liquidated damages for each calendar day the contract work remains incomplete after 12:01 AM, December 23, 2022. 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 or to the final completion date 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.

5. Lane Rental Fee Assessment.

A General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

B Lane Rental Fee Assessment

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

- $10,000 per lane, per direction of travel, per hour broken into 15 minute increments

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 15 minutes and less will be assessed as a 15-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents, or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item Failing to Open Road to Traffic. The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 15-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires before the completion of specified work in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

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6. Traffic.

A General

The following is a general overview of the traffic control and staging required throughout all stages of the project. The staging requirements are described further in the “Prosecution and Progress” article in these special provisions.

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

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

Any revisions to the traffic control plans shall adhere to the Notice to Contractor, Revisions to Traffic Control Plans article of these special provisions.

IH 39/90, STH 26, USH 14 and local roads will remain open to through traffic at all times for the duration of this project except where noted below and in the Prosecution and Progress article of these special provisions.

No lanes on IH 39/90, STH 26, USH 14 or local roads shall be closed prior to or after the specified times provided in this article and as listed in the Prosecution and Progress article. If the contractor closes lanes of IH 39/90 traffic prior to or fails to open lanes of IH 39/90 traffic by the specified times, then a fee based upon the Lane Rental Fee Assessment article of these special provisions will be assessed to the contractor. If the contractor closes lanes of STH 26, USH 14 or local road traffic prior to or fails to open lanes of STH 26, USH 14 or local road traffic by the specified times, then a fee based upon the Prosecution and Progress article of these special provisions will be assessed to the contractor.

B Traffic Operations During All Stages

- Maintain two lanes of traffic in each direction at all times on IH 39/90*.
- Maintain the existing number of lanes of traffic in each direction at all times on local roads*.
- Maintain traffic on ramps at all times**.
- Maintain mainline traffic on IH 39/90, STH 26, USH 14 and local roads on a paved concrete or hot mix asphalt surface at all times.
- Maintain a minimum lane width of 12-feet on IH 39/90 (16-foot minimum clear width when restricted to one lane) and ramps.
- Maintain a minimum lane width of 11-feet on STH 26, USH 14 and local roads and 12-feet on Deerfield Drive.

**Lane, shoulder, and rolling stop closures allowed as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article and Prosecution and Progress article.*

***Lane, shoulder, and roadway/ramp closures allowed as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article and Prosecution and Progress article.*

C Traffic Operations

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Stage 1

- o IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- o Traffic will be maintained on all existing lanes at all times along entrance and exit ramps at the USH 14 and STH 26 interchanges with IH 39/90.
- o USH 14 traffic will be maintained on all existing lanes at all times.
- o STH 26 traffic will be maintained on all existing lanes at all times.
- o Local road traffic will be maintained on all existing lanes at all times.
- o Pedestrian movements will utilize all existing crossings.

Stage 2, Phase 1

- o IH 39/90 northbound traffic will utilize an existing crossover between Mt. Zion Avenue and USH 14 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will utilize an existing crossover north of Kennedy Road to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will shift to the outside of southbound IH 39/90. Traffic will switch at the completion of Stage 1. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- o Traffic will be maintained on all existing lanes and crossovers at all times along entrance and exit ramps at the USH 14 and STH 26 interchanges with IH 39/90, except for the IH 39/90 northbound exit ramp to USH 14, northbound entrance ramp from USH 14 and northbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.
- o USH 14 and STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- o Kennedy Road will be closed as specified in the Prosecution and Progress article of these special provisions.
- o Local road traffic, except for Kennedy Road, will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- o Pedestrian movements will utilize all existing crossings, except the Ice Age trail which will be closed at the IH 39/90 crossing.

Stage 2, Phase 2

- IH 39/90 northbound traffic will utilize an existing crossover between Mt. Zion Avenue and USH 14 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will utilize an existing crossover north of Kennedy Road to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all existing lanes and crossovers at all times along entrance and exit ramps at the USH 14 and STH 26 interchanges with IH 39/90, except the IH 39/90 northbound entrance ramp from STH 26 will utilize the newly constructed entrance ramp and the IH 39/90 northbound exit ramp to USH 14 will be closed as specified in the Prosecution and Progress article of these special provisions.
- USH 14 and STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- Kennedy Road traffic will be maintained on the newly constructed roadway.
- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings, except the Ice Age trail which will be closed at the IH 39/90 crossing.

Stage 2, Phase 3

- IH 39/90 northbound traffic will utilize an existing crossover between Mt. Zion Avenue and USH 14 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will utilize an existing crossover north of Kennedy Road to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all existing lanes at all times along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges.
- Traffic will be maintained as follows along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 northbound exit ramp to USH 14 will utilize the newly constructed temporary ramp and crossover.

The IH 39/90 northbound entrance ramp from USH 14 and exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 northbound entrance ramp from STH 26 will utilize the previously constructed entrance ramp and crossover.

- USH 14 and STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- Kennedy Road traffic will be maintained on the previously constructed roadway.
- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings, except the Ice Age trail which will be closed at the IH 39/90 crossing.

Stage 2, Phase 4

- IH 39/90 northbound traffic will utilize an existing crossover between Mt. Zion Drive and USH 14 to switch to the southbound side of IH 39/90. IH 39/90 traffic will match the 1005-10-78 traffic control north of Kennedy Road. IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all existing lanes at all times along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges.
- Traffic will be maintained as follows along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 northbound exit ramp to USH 14 will utilize the newly constructed ramp and crossover.

The IH 39/90 northbound entrance ramp from USH 14 and exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 northbound entrance ramp from STH 26 will utilize the previously constructed entrance ramp and crossover and will be closed as specified in the Prosecution and Progress article of these special provisions.

- USH 14 and STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- Kennedy Road traffic will be maintained on the previously constructed roadway.
- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings, except the Ice Age trail which will be closed at the IH 39/90 crossing.

Stage 3

- IH 39/90 northbound traffic will shift to the outside of the newly constructed northbound IH 39/90. IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90. IH 39/90 traffic will match the 1005-10-78 traffic control north of Kennedy Road. Traffic will switch at the completion of Stage 2-Phase 4. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all existing lanes at all times along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges except as follows:

The IH 39/90 southbound entrance ramp from USH 14 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Traffic will be maintained as follows along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 northbound exit ramp to USH 14 will utilize the previously constructed ramp and will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 northbound entrance ramp from USH 14 and exit ramp to STH 26 will utilize the newly constructed ramps.

The IH 39/90 northbound entrance ramp from STH 26 will utilize the previously constructed entrance ramp.

- USH 14 and STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- Kennedy Road traffic will be maintained on the previously constructed roadway.

- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings, except the Ice Age trail which will be closed at the IH 39/90 crossing.

Stage 4, Phase 1

- IH 39/90 northbound traffic will remain on the outside of the previously constructed northbound IH 39/90. IH 39/90 southbound traffic will utilize a newly constructed crossover between Mt. Zion Drive and USH 14 to switch to the northbound side of IH 39/90. IH 39/90 traffic will match the 1005-10-78 traffic control north of Kennedy Road. Traffic will switch at the completion of Stage 3. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all previously constructed lanes at all times along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges.
- Traffic will be maintained as follows along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 southbound entrance ramp from USH 14 will utilize the previously constructed temporary ramp and crossover.

The IH 39/90 southbound exit ramp to USH 14 and entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will utilize the existing ramp and crossover.

- USH 14 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- See STH 26 traffic operations in this article for specific STH 26 staging.
- Kennedy Road will be closed as specified in the Prosecution and Progress article of these special provisions.
- Local road traffic, except for Kennedy Road, will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings, except the Ice Age trail which will be closed at the IH 39/90 crossing. See STH 26 traffic operations in this article for specific STH 26 staging.

Stage 4, Phase 2

- IH 39/90 northbound traffic will remain on the outside of the previously constructed northbound IH 39/90. IH 39/90 southbound traffic will utilize a previously constructed crossover between Mt. Zion Drive and USH 14 to switch to the northbound side of IH 39/90. IH 39/90 traffic will match the 1005-10-78 traffic control north of Kennedy Road. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all previously constructed lanes at all times along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges except as follows:

The IH 39/90 northbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Traffic will be maintained as follows along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 southbound entrance ramp to USH 14 will utilize the previously constructed ramp and crossover.

The IH 39/90 southbound exit ramp to USH 14 will utilize the newly constructed temporary ramp and crossover.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will utilize the newly constructed temporary ramp and crossover. The left turn movement for the IH 39/90 southbound exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- USH 14 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- See STH 26 traffic operations in this article for specific STH 26 staging.
- Kennedy Road will be closed as specified in the Prosecution and Progress article of these special provisions.
- Local road traffic, except for Kennedy Road, will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings. The Ice Age trail will be open. See STH 26 traffic operations in this article for specific STH 26 staging.

Stage 4, Phase 3

- IH 39/90 northbound traffic will remain on the outside of the previously constructed northbound IH 39/90. IH 39/90 southbound traffic will utilize a previously constructed crossover between Mt. Zion Drive and USH 14 to switch to the northbound side of IH 39/90. IH 39/90 traffic will match the 1005-10-78 traffic control north of Kennedy Road. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all previously constructed lanes at all times along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges except as follows:

The left turn movement of the IH 39/90 northbound exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Traffic will be maintained as follows along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 southbound entrance ramp from USH 14 will utilize the previously constructed ramp and crossover.

The IH 39/90 southbound exit ramp to USH 14 will utilize the previously constructed temporary ramp and crossover. The right turn movement for the IH 39/90 southbound exit ramp to USH 14 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will utilize the newly constructed ramp and crossover. The left turn movement for the IH 39/90 southbound exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- USH 14 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- See STH 26 traffic operations in this article for specific STH 26 staging.
- Kennedy Road traffic will be maintained on the newly constructed roadway.
- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all existing crossings. The Ice Age trail will be open. See STH 26 traffic operations in this article for specific STH 26 staging.

Stage 4, Phase 4

- IH 39/90 northbound traffic will remain on the outside of the previously constructed northbound IH 39/90. IH 39/90 southbound traffic will utilize a previously constructed crossover between Mt. Zion Drive and USH 14 to switch to the northbound side of IH 39/90. IH 39/90 traffic will match the 1005-10-78 traffic control north of Kennedy Road. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Traffic will be maintained on all previously constructed lanes at all times along the IH 39/90 northbound entrance and exit ramps at the USH 14 and STH 26 interchanges except as follows:

The IH 39/90 northbound exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Traffic will be maintained as follows along the IH 39/90 southbound entrance and exit ramps at the USH 14 and STH 26 interchanges:

The IH 39/90 southbound entrance ramp to USH 14 will utilize the newly constructed ramp and crossover.

The IH 39/90 southbound exit ramp to USH 14 will utilize the newly constructed ramp and crossover.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will utilize the previously constructed ramp and crossover.

- USH 14 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- See STH 26 traffic operations in this article for specific STH 26 staging.
- Kennedy Road traffic will be maintained on the newly constructed roadway.
- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Ryan Road traffic will be maintained on the newly constructed roadway.
- Pedestrian movements will utilize all existing crossings. The Ice Age trail and Ryan Road sidewalk will be open. See STH 26 traffic operations in this article for specific STH 26 staging.

Stage 5

- IH 39/90 northbound traffic will remain on the outside of the previously constructed northbound IH 39/90. IH 39/90 southbound traffic will shift to the outside of the newly constructed southbound IH 39/90. Traffic will switch at the completion of Stage 4-Phase 4. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 and STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- Kennedy Road traffic will be maintained on the previously constructed roadway.
- Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- Pedestrian movements will utilize all newly constructed crossings, sidewalks and paths.

<u>STH 26 Traffic Operations</u>

Stage 1

- STH 26 traffic will be maintained on all existing lanes at all times.
- STH 26 interchange ramps will be maintained on all existing lanes at all times.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 2, Phase 1

- STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 2, Phase 2/2A

- STH 26 traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound entrance ramp from STH 26 will be maintained on the newly constructed and temporary ramp.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 2, Phase 3

- STH 26 southbound traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 northbound traffic will be maintained on existing and temporary lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 northbound entrance ramp from STH 26 will be maintained on the newly constructed and temporary ramp.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 3

- STH 26 southbound traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 northbound traffic will be maintained on existing and temporary lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.

- STH 26 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound entrance and exit ramps at STH 26 will be maintained on the newly constructed and temporary ramps.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 4, Phase 1

- STH 26 southbound traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 northbound traffic will be maintained on existing and temporary lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound entrance and exit ramps at STH 26 will be maintained on the previously constructed and temporary ramps.

The IH 39/90 southbound entrance from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 4, Phase 2

- STH 26 southbound traffic will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 northbound traffic will be maintained on existing and temporary lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound entrance and exit ramps at STH 26 will be maintained on the previously constructed and temporary ramps.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Morse Street and Kettering Street traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 4, Phase 2A

- STH 26 southbound traffic will utilize a newly constructed crossover between USH 14 and Morse Street to switch to the northbound side of STH 26. STH 26 southbound traffic will utilize a newly constructed crossover between Kettering Street and John Paul Road to switch back to the southbound side of STH 26. Two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.

- STH 26 northbound traffic will be maintained on two lanes on the outside of the existing and temporary lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained as follows:

The IH 39/90 northbound entrance and exit ramps at STH 26 will be maintained on the previously constructed and temporary ramps.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will be maintained on the newly constructed and temporary ramps.

- Morse Street traffic will be maintained on all existing lanes at all times.
- Kettering Street traffic will be maintained as follows:

North Kettering Street will be maintained on previously constructed temporary pavement lanes on the north side of the roadway.

South Kettering Street will be maintained on existing lanes.

- Pedestrian movements at the Morse Street crossing will be detoured. Pedestrian movements at Kettering will utilize temporary access as shown on the plans.

Stage 4, Phase 2B

- STH 26 southbound traffic will utilize a previously constructed crossover between USH 14 and Morse Street to switch to the northbound side of STH 26. STH 26 southbound traffic will utilize a previously constructed crossover between Kettering Street and John Paul Road to switch back to the southbound side of STH 26. Two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- STH 26 northbound traffic will be maintained on two lanes on the outside of the existing and temporary lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained as follows:

The IH 39/90 northbound exit ramp to STH 26 will be maintained on the previously constructed and temporary ramps.

The IH 39/90 northbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will be maintained on the previously constructed and temporary ramps. The left turn movement from the exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Morse Street traffic will be maintained on all existing lanes at all times.
- Kettering Street traffic will be maintained as follows:

North Kettering Street westbound traffic will be maintained on previously constructed temporary pavement lanes on the north side of the roadway and eastbound traffic on newly constructed lanes on the south side of the roadway.

South Kettering Street will be maintained on existing lanes.

- Pedestrian movements at the Morse Street crossing will be detoured. Pedestrian movements at Kettering will utilize the newly constructed sidewalk.

Stage 4, Phase 2C

- All traffic will follow the previous stage except as follows:

North Kettering Street will be maintained on newly constructed lanes on the south side of the roadway.

Stage 4, Phase 3

- STH 26 southbound traffic will be maintained on the newly constructed and temporary southbound lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 northbound traffic will be maintained on the outside of the existing and temporary northbound lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained as follows:

The IH 39/90 northbound exit ramp to STH 26 will be maintained on the previously constructed and temporary ramps. The left turn movement from the exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 northbound entrance ramp from STH 26 will be maintained on the previously constructed and temporary ramps. The left turn movement from STH 26 northbound to the ramp will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will be maintained on the previously constructed and temporary ramps. The left turn movement from the exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Morse Street traffic will be maintained on all existing lanes at all times.
- Kettering Street traffic will be maintained as follows:

North Kettering Street traffic will be maintained on newly constructed lanes.

South Kettering Street will be maintained on existing lanes on the south side of the roadway.

Pedestrian movements at the Morse Street crossing will be on new and temporary crossings. Pedestrian movements at Kettering will utilize the newly constructed sidewalk.

Stage 4, Phase 4

- STH 26 southbound traffic will be maintained on the previously constructed and temporary southbound lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 northbound traffic will utilize a newly constructed crossover between USH 14 and Morse Street to switch to the southbound side of STH 26. STH 26 northbound traffic will utilize a newly constructed crossover between Kettering Street and John Paul Road to switch back to the northbound side of STH 26. Two lanes of traffic will be maintained in the northbound direction except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- STH 26 interchange ramps will be maintained as follows:

The IH 39/90 northbound exit ramp to STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 northbound entrance ramp from STH 26 will be maintained on the previously constructed ramp.

The IH 39/90 southbound entrance ramp from STH 26 will be closed as specified in the Prosecution and Progress article of these special provisions.

The IH 39/90 southbound exit ramp to STH 26 will be maintained on the previously constructed ramp.

- Morse Street traffic will be maintained on all existing lanes at all times.
- Kettering Street traffic will be maintained as follows:

North Kettering Street traffic will be maintained on newly constructed lanes.

South Kettering Street will be maintained on existing lanes on the south side of the roadway.

- Pedestrian movements at the Morse Street crossing will be on new and temporary crossings. Pedestrian movements at Kettering will utilize the newly constructed sidewalk.

Stage 4, Phase 4A

- All traffic will follow the previous stage except as follows:
- The IH 39/90 northbound exit ramp to STH 26 will be open on the newly constructed lanes.
- The westbound right turn lane on South Kettering Street will be maintained on the newly constructed lanes on the north side of the roadway.

Stage 4, Phase 4B

- All traffic will follow the previous stage except as follows:
- South Kettering Street eastbound traffic will be maintained on the newly constructed lanes on the north side of the roadway.

Stage 4, Phase 4C

- All traffic will follow the previous stage except as follows:

The west leg of the Morse Street intersection will be maintained on all existing lanes at all times. The east leg of the Morse Street intersection will be closed as specified in the Prosecution and Progress article of these special provisions.

South Kettering Street traffic will be maintained on the newly construct lanes on the north side of the roadway.

Pedestrian movements at the east side of the Morse Street crossing will be on temporary crossings.

Stage 5, Phase 1

- The IH 39/90 and STH 26 interchange will now be operating as a diverging diamond interchange.
- All STH 26 traffic will be maintained on the previously constructed lanes at all times except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections and the Prosecution and Progress article of these special provisions.
- STH 26 interchange ramps will be maintained on all previously constructed lanes at all times.
- Morse Street traffic will be maintained on all existing and previously constructed lanes at all times.
- Kettering Street traffic will be maintained on previously constructed lanes at all times. The inside lane of the eastbound traffic on South Kettering Street will be maintained on the inside lane on the north side of the roadway.
- Pedestrian movements at the Morse Street crossing will be on new crossings. Pedestrian movements at Kettering will utilize the newly constructed sidewalk.

Stage 5, Phase 2

- All traffic will follow the previous stage except as follows:
- All South Kettering Street eastbound traffic will be maintained on the south side of the roadway.

<u>Project 1005-10-83</u>

Local road traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

<u>Project 1005-10-87/5569-00-71</u>

Stage 1

- USH 14 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

- USH 14 interchange ramps will be maintained on all existing lanes at all times.
- Local road traffic will be maintained on all existing lanes at all times.
- Pedestrian movements will utilize all existing crossings.

Stage 2, Phase 1

- USH 14 will be closed to traffic from STH 26 to Pontiac Drive.
- USH 14 eastbound will be maintained on one lane of traffic on the inside of the existing westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections. USH 14 eastbound traffic will utilize a newly constructed crossover between Deerfield Drive and Wright Street to switch to the eastbound side of USH 14.
- USH 14 westbound will be maintained on one lane of traffic on the outside of the newly widened westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 interchange ramps will be maintained on all existing lanes at all times except as follows:

All ramps will remain open except as specified in the Prosecution and Progress article of these special provisions.

- Lexington Drive traffic will be maintained on one lane of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Pontiac Drive traffic will be maintained on one lane of traffic for each direction and one (1) southbound left turn lane on the east side of the roadway. Traffic locations will be staged as shown in the traffic control and staging plans.
- Deerfield Drive traffic will be maintained on one lane of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Pedestrian movements will utilize temporary crossings and staged as shown in the traffic control and staging plans.

Stage 2, Phase 2

- All traffic will follow the previous stage except as follows:

Southbound Pontiac Drive traffic will be maintained on one shared through and left turn lane.

Northbound Deerfield Drive right turn will be maintain on a separate lane.

Pedestrian movements will utilize temporary crossings.

Stage 2, Phase 3

- All traffic will follow the previous stage except as follows:

Southbound Pontiac Drive traffic will be maintained on one through and one left turn lane on the west side of the roadway.

Northbound Deerfield Drive through/right movement will be maintained on one shared lane on the outside of the roadway.

Pedestrian movements at Pontiac will utilize the proposed crossing on the west side of the intersection. Pedestrian movements at Deerfield will follow the previous stage.

Stage 2, Phase 3A

- All traffic will follow the previous stage except as follows:

Northbound Deerfield Drive utilize two lanes of traffic on the outside of the roadway.

Pedestrian movements will follow the previous stage.

Stage 2, Phase 4

- All traffic will follow the previous stage except as follows:

Northbound Pontiac Drive traffic will be maintained on one lane on the west side of the roadway south of USH 14.

Southbound Deerfield Drive will be maintained on one lane on the inside of the roadway south of USH 14.

Pedestrian movements will follow the previous stage.

Stage 3, Phase 1

- USH 14 will be closed to traffic from STH 26 to Pontiac Drive.
- USH 14 eastbound will be maintained on one lane of traffic on the outside of the newly constructed eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 westbound will be maintained on one lane of traffic on the outside of the widened westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 interchange ramps will be maintained on all existing lanes at all times.
- Lexington Drive traffic will be maintained on one lane of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Pontiac Drive traffic will be maintained on one lane of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Deerfield Drive traffic will be maintained on two lanes of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Pedestrian movements will utilize the new location at Pontiac Drive and existing location at Deerfield Drive.

Stage 4, Phase 1

- USH 14 will be closed to traffic from STH 26 to Pontiac Drive.
- USH 14 eastbound will be maintained on one lane of traffic on the outside of the newly constructed eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 westbound will be maintained on one lane of traffic on the inside of the newly constructed eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 interchange ramps will be maintained on all existing lanes at all times except as follows:

All ramps will remain open except as specified in the Prosecution and Progress article of these special provisions.

- Lexington Drive traffic will be maintained on one lane of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Pontiac Drive traffic will be maintained on one lane of traffic for each direction and one southbound left turn lane on the west side of the roadway. Traffic locations will be staged as shown in the traffic control and staging plans.
- Deerfield Drive traffic will be maintained on two lanes of traffic for each direction. Traffic locations will be staged as shown in the traffic control and staging plans.
- Pedestrian movements will follow the previous stage at Pontiac Drive and Deerfield Drive.

Stage 4, Phase 1A

- All traffic will follow the previous stage except as follows:

Southbound Deerfield Drive traffic will be maintained on one shared through/right lane on the west side of the roadway and one left turn lane on the inside of the roadway.

Pedestrian movements will follow the previous stage.

Stage 4, Phase 1B

- All traffic will follow the previous stage except as follows:

Southbound Deerfield Drive traffic will be maintained on one shared through/right lane and one left turn lane on the west side of the roadway.

Pedestrian movements will follow the previous stage.

Stage 4, Phase 2

- All traffic will follow the previous stage except as follows:

Southbound Pontiac Drive traffic will be maintained on one shared through and left turn lane on the west side of the roadway. Northbound Pontiac Drive will be maintained on one lane of traffic on the east side of the roadway.

Northbound Deerfield Drive traffic will be maintained on one left turn lane, one, through lane and one right turn lane. The through lane will be maintained on the inside of the roadway north of USH 14.

Pedestrian movements will follow the previous stage at Pontiac Drive and on temporary crossings at Deerfield Drive.

Stage 5, Phase 1

- USH 14 eastbound will be maintained on two lanes of traffic from STH 26 to Pontiac Drive and one lane of traffic from Pontiac Drive to east of Deerfield Drive on the outside of the eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 westbound will be maintained on two lanes of traffic from STH 26 to Pontiac Drive and one lane of traffic from Pontiac Drive to east of Deerfield Drive on the outside of the newly constructed westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 southbound exit ramp to USH 14 and IH 39/90 southbound entrance ramp form USH 14 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Lexington Drive and Pontiac Drive traffic will be maintained on all lanes at all times.
- Deerfield Drive traffic will be on one through lane, one left turn lane and one right turn lane.
- Pedestrian movements will utilize all new crossings.

Stage 5, Phase 2

- All traffic will follow the previous stage except as follows:

USH 14 eastbound will be maintained on one lane of traffic from Pontiac Drive to Deerfield Drive on the inside of the eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

USH 14 westbound will be maintained on one lane of traffic from Pontiac Drive to Deerfield Drive on the inside of the newly constructed westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

Pedestrian movements will follow the previous stage.

Stage 5, Phase 3

- USH 14 eastbound will be maintained on two lanes of traffic from STH 26 to the southbound ramp terminal and one lane of traffic from the southbound ramp terminal to east of Deerfield Drive on the outside of the eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 westbound will be maintained on two lanes of traffic from STH 26 to the southbound ramp terminal and one lane of traffic from the southbound ramp terminal to east of Deerfield Drive on the outside of the newly constructed westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.
- USH 14 interchange ramps will be maintained on all existing lanes at all times except as follows:

The IH 39/90 northbound exit ramp to USH 14 and IH 39/90 northbound entrance ramp form USH 14 will be closed as specified in the Prosecution and Progress article of these special provisions.

- Lexington Drive and Pontiac Drive traffic will be maintained on all lanes at all times.
- Deerfield Drive traffic will be on one through lane, one left turn lane and one right turn lane.
- Pedestrian movements will follow the previous stage.

Stage 5, Phase 4

- All traffic will follow the previous stage except as follows:

USH 14 eastbound will be maintained on one lane of traffic from the southbound ramp terminal to east of Deerfield Drive on the inside of the eastbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

USH 14 westbound will be maintained on one lane of traffic from the southbound ramp terminal to east of Deerfield Drive on the inside of the newly constructed westbound lanes except as specified in the Lane and Shoulder Closure and Roadway, Ramp, and Rolling Stop Closures sections.

Coordinate and stage all construction activities within the areas of local traffic routes, as required to maintain a traveled way conforming to all above requirements.

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, lighting, tubular marker posts, barricades, and traffic control drums for the stage are in place, temporary signals for the stage are in place and operational, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer.

Use drums and barricades to direct local vehicular in the work zone and to protect and delineate hazards such as open excavations, abrupt drop-offs, and exposed manholes, inlets, hydrants, etc. The use of such devices shall be incidental to the operation which creates the hazard.

Place roadway signing and roadway temporary pavement marking as detailed on the plans and in conformance to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Traffic control shall be completely in place by the end of the working day of a traffic switch.

Do not deliver or store materials and equipment within open travel lanes, open side roads or open sidewalks during any stage of construction. Temporary lane closures and/or halting of traffic within open roadways and pedestrian paths require flaggers and will not be permitted outside of the permitted closure times listed in this article.

Conduct operations in a manner that will cause the least interference to traffic and pedestrian movements. Maintain vehicle and pedestrian access at all times to buildings within the limits of construction. Access to residential parcels may be restricted for up to one calendar day in order to construct driveways in front of residential access points. Notify property owners at least two working days prior to closing their access point. Maintaining property access is included in the Traffic Control bid item.

Maintain access to all Frontage Roads and Brentwood Drive at all times.

Do not at any time conduct construction operations in the median area and adjacent outside area of IH 39/90 at the same time without the permission of the engineer.

Obtain approval from the engineer for the location of any ingress or egress access points for construction vehicles outside the allowed time periods specified in the Traffic article of these special provisions.

D Lane and Shoulder Closures

Single lane closures on IH 39/90 may be permitted during nighttime hours as defined below in this article. During the times when one lane is allowed to be closed, a minimum clear width of 16 feet, including the adjacent shoulder, shall be maintained at all times. Single lane closures on USH 14 and STH 26 may be permitted during off-peak hours as defined below in this article. During the times when one lane is allowed to be closed, a minimum clear width of 12 feet on USH 14 and 16 feet on STH 26, including the adjacent shoulder, shall be maintained at all times. Times listed for lane and shoulder closures include setup and breakdown of any equipment and traffic control devices.

Permitted IH 39/90 Lane Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

Permitted USH 14 Lane Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM

Permitted STH 26 Lane Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM

Shoulders may be closed at any time if required by the work operation, but the right and left shoulder may not be closed in the same area at the same time.

A single lane closure along Deerfield Drive will be permitted. Provide 7 calendar days advance notification to the engineer for approval of lane closure. Include justification for the lane closure and the anticipated duration in the request. A request does not constitute approval. Lane closures on Deerfield Drive will not be allowed while USH 14 or STH 26 are closed.

Request approval from the engineer for all lane closures according to the requirements of the subsection titled “Wisconsin Lane Closure System Advanced Notification” of this article. Include justification for the lane closure and the anticipated duration in the request. A request does not constitute approval. Terminate single lane closures prior to the end of the Permitted Lane Closure Times. Failure to obtain approval or reopen closed lanes at the required time shall be subject to assessments specified under the Lane Rental Fee Assessment article of these special provisions.

Maintain a 2 mile minimum spacing between simultaneous lane closures. The 2 mile spacing is measured from the end of the first lane closure to beginning of taper for the next lane closure.

Provide arrow boards for use during all single lane closures according to the MUTCD. Arrow boards for single lane closures will be paid for under the item Traffic Control Arrow Boards for each day with a single lane closure where an arrow board is in use.

Flagging operations will be allowed along all local roads, except USH 14 and STH 26, to accommodate the roadway and structure work between 1 hour after sunrise and 1 hour before sunset. Use sunset and sunrise information from the nearest National Weather Service office. Delays due to flagging may not exceed 5 minutes in any direction. The engineer will have the ability to suspend work activities in the event any undesirable traffic congestion develops that has the potential to cause lengthy motorist delay or unsafe workings conditions.

E Roadway, Ramp, and Rolling Stop Closures

Maintain full access as shown in the Construction Staging section of the plans except those defined in the Prosecution and Progress article of these special provisions.

Permitted IH 39/90 Ramp Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

Permitted IH 39/90 Rolling Stop Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM

Permitted USH 14/Lexington Drive/Deerfield Drive Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 6:00 AM 10:00 PM – 11:59 PM
Friday	12:00 AM – 6:00 AM
Sunday	10:00 PM – 11:59 PM

Permitted STH 26 Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 6:00 AM 10:00 PM – 11:59 PM
Friday	12:00 AM – 6:00 AM
Sunday	10:00 PM – 11:59 PM

Coordinate closure time of North Frontage Road from Pontiac Drive with businesses along North Frontage Road. North Frontage Road closure will not be allowed until times are approved by businesses and engineer.

Contractor operations shall not require state patrol cars to stop IH 39/90 traffic for more than 15 minutes during rolling stop closures. The necessary flag persons, advanced signing and law enforcement personnel are required to be on site prior to and during this operation. Make arrangements for implementing the rolling stops and closures on IH 39/90 through Jeff Gustafson at the Southwest Region Madison Office at (608) 516-6400, with the Southwest Region Office of the Wisconsin State Patrol, the

Rock County Sheriff's Department, and the Dane County Sheriff's Department at least 10 days prior to any stoppage.

Failure to reopen the roadway at the required times shall be subject to assessments specified under the Prosecution and Progress and Lane Rental Fee Assessment articles of these special provisions.

Place Traffic Control Signs Portable Changeable Message for all lane, roadway and ramp closures as shown on the plans at least seven days prior to the lane, roadway or ramp closure. Install all signing and devices for detour routes. Obtain approval from the department for all messages for the Traffic Control Signs Portable Changeable Message. The engineer will contact Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400. All lane closures are subject to the approval of the Region traffic engineer.

F Local Access to Project

Maintain local traffic access during the construction of STH 26, USH 14, and the local roads. Stage construction activities as required to maintain local traffic access according to the permitted closure and flagging operation times listed in this article of these special provisions.

Construct and maintain a local traffic access route on any section of roadway that will carry only local traffic conforming to the following criteria:

- Number of Lanes: One lane in each direction
- Lane Width: Minimum of 11 foot width OR one lane roadway with flagging
- Driving Surface: Acceptable driving surfaces include base aggregate dense, asphaltic surface temporary, HMA pavement, concrete pavement and milled surfaces.

G Pedestrian Access

Maintain existing sidewalk and provide pedestrian access to residents and businesses at all times, except as permitted herein. Provide and maintain existing and temporary pedestrian crosswalk access as shown in the plans and included in the article. If the engineer determines that additional crosswalk locations are needed, provide them at locations as directed by the engineer. Existing and temporary sidewalk, pedestrian access, and crosswalks shall meet the requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and shall consist of existing or finish pavement surface or Temporary Surface. Gravel or base course material is not acceptable. The contract includes work items for Temporary Pedestrian Surface, Temporary Curb Ramps, and Temporary Pedestrian Safety Fence to provide access. Use these items to maintain crosswalks as detailed in the plans or directed by the engineer.

Furnish and install Temporary Pedestrian Safety Fence along existing and temporary sidewalk surface where there are drop-offs greater than 6-inches within 1-foot of the sidewalk edge and a grass turf buffer does not exist to delineate the edge of sidewalk for vision impaired pedestrians or to deter pedestrians from entering the work zone.

Traffic Control Drums or barrels shall not be used for guidance along pedestrian access routes.

If additional special pedestrian access needs are identified along the project, provide for that access as directed by the engineer.

Close sidewalk for removal of existing and temporary sidewalk and for construction of new concrete sidewalk. Close sidewalk on only one side of the roadway and only one side of an intersecting side street at any time. Provide a sidewalk detour as detailed in the plans. Open the sidewalk to pedestrian traffic after backfilling the sidewalk and completing proposed curb ramps. The maximum closure duration for sidewalk replacement is 72 hours. Backfill along the sidewalk edges with topsoil, salvaged topsoil or other finish surfaces as detailed in the plans. A temporary material may be substituted for sidewalk backfill to the top sidewalk edge and compacted to a minimum slope of 3:1 perpendicular to the sidewalk edge.

Do not remove the Deerfield Drive sidewalk until the crossings are completed at the Mercy hospital and Ryan Road intersection.

Once the sidewalk and/or multi-use path is open maintain access at all times. The multi-use path may be reduced to 5-foot width during daytime hours for landscaping and native seed planting operations.

Maintain ADA accessible pedestrian walkways that are free from mud, sand, and construction debris.

H Property Access

Maintain access to properties along the project for local residents, businesses, and emergency vehicles. Access to all driveways and parking lots where alternative access is not available shall remain open at all times, except when it is absolutely necessary to close them for underground construction. Concrete curb and gutter, concrete driveway, and concrete sidewalk construction shall be staged to maintain driveway access. Keep business entrances open by partial driveway construction or by closing only one access at a time for properties with multiple driveways. Construct temporary commercial entrances including a crushed aggregate surface within 24 hours of removal. Combine temporary commercial entrances wherever practical to minimize the number of access locations.

Inform all adjacent property owners two working days prior to closing their access(es). Maintaining property access as described above is considered included in the Traffic Control bid item.

I Advance Notification

Notify the Town of Harmony, Riteway Bus Service, City of Janesville Police Department, Fire Department and Director of Public Works, Rock County Sheriff's Department and Highway Commissioner, Wisconsin State Patrol through Jeff Gustafson of WisDOT Southwest Region at (608) 516-6400 or jeffrey.gustafson@dot.wi.gov, Milton Post Office, Janesville Post Office, Edgerton Reporter and Janesville Gazette 48 hours in advance of the start of work, closures of existing streets, and prior to traffic control changes. Notifications must be given by 4:00 PM on Thursday for any such work to be done on the following Monday.

Notify the City of Janesville and City of Milton School Districts along with Janesville Transit two weeks prior to construction. Also notify them one week prior to traffic switches and lane closures.

Notify the Wisconsin Department of Natural Resources one week prior to closing the Ice Age Trail.

The department has the authority to disallow any requested closures or width restrictions. Advance notification as described above is included in the Traffic Control bid item.

J Clear Zone Working Restrictions

Do not leave any slopes steeper than 3:1 within the clear zone or any drop offs at the edge of the traveled way greater than 2 inches which are not protected by concrete barrier temporary precast. The construction clear zone for IH 39/90 is 20 feet. The construction clear zone for the IH 39/90 ramps is 18 feet. The construction clear zone for USH 14 is 14 feet and STH 26 is 16 feet. The construction clear zone for Deerfield Drive, Ryan Road, Kettering Street, Morse Street, Kennedy Road and Brentwood is 10 feet.

Do not perform heavy equipment work in the median or adjacent to the shoulder at any time unless protected by concrete barrier in both directions except during night work with allowed lane closures.

Store materials or park equipment a minimum of 36-feet from the edge of the IH 39/90 traveled way. Equipment may be parked in the median if it is protected by concrete barrier.

If the contractor is unsure whether an individual work operation will meet the safety requirements for working within the clear zone, review the proposed work operation with the engineer before proceeding with the work.

K Portable Changeable Message Signs – Message Prior Approval

After coordinating with department construction field staff, notify Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400, three weeks prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The department will review the proposed message and either approve the message or make necessary changes.

L Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.

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Notify the engineer and WisDOT Statewide Traffic Operations Center (STOC) at (414) 227-2142 if there are any changes in the schedule, early completions, or cancellations of scheduled work.

The department has the authority to disallow any requested closures or width restrictions.

Coordinate with the engineer prior to any traffic detour to allow at least ten working days for the review of the detour route marker signing. The engineer will contact the Southwest Region Madison Office Traffic Management Coordinator, Jeff Gustafson, (608) 516-6400.

M Portable Intelligent Transportation System

The department may be supplying and operating an intelligent transportation system during the construction of this project. The ITS system may consist of a portable video surveillance system and portable changeable message signs. These portable units may be parked inside and outside the construction limits to help assist law enforcement and the department with monitoring traffic conditions during the construction activities.

The department will coordinate the placement of these devices with the contractor. The contractor will be required to accommodate the placement of these devices within the project. The general accommodations include an area to park the devices out of the clear zone but still visible to traffic and access to and from the devices. Contact the Southwest Region Traffic Section, Graham Heitz at (608) 246-5362 for specific details regarding the intelligent transportation system.

N Protection of Structures

Bridge pier columns and sign bridge bases are to remain protected at all times throughout construction.

O Construction Access

All construction access is subject to approval of the engineer.

Construction traffic cannot travel counter-directional adjacent to IH 39/90 traffic except behind concrete barrier temporary precast.

U-Turns at existing maintenance crossovers or temporary crossovers between IH 39/90 northbound and southbound will only be allowed when lane closures are in place for inside northbound and southbound lanes.

Construction operations affecting the traveling public's safety on IH 39/90 will not be allowed during snow and ice conditions, or any other adverse weather conditions, unless approved by the engineer.

Delivery of equipment to IH 39/90 requiring the use of a semi-tractor and trailer shall only occur during those hours identified as IH 39/90 Permitted Lane Closure Times.

P Winter Maintenance

During winter months park equipment outside of the clear zone to prevent damage to equipment from snow plowing operations. Do not store equipment or materials within the work zone which may interfere with horizontal sight distances along IH 39/90.

Snow may be plowed from the traveled roadway into the work zone by the maintaining authority. The contractor is responsible for any snow removal from the work zone that may be required to continue work operations.

The contractor is responsible for plowing any areas which may need to be cleared of snow or ice to accommodate changes in traffic control and to facilitate construction staging during winter months. The local maintaining authority will not provide snow plowing operations in areas outside of the active traveled lanes.

Re-install or adjust any traffic control devices that may be damaged, removed, or shifted as part of normal winter maintenance operations. Clean and maintain traffic control devices as necessary or directed as a result of winter maintenance operations.

Anticipated locations of traffic control devices are shown in the plans. Review the work zone with the engineer for locations where additional area may be available to maximize lane and shoulder widths over winter months to aid in winter maintenance operations and to maximize snow storage area. Adjust traffic control devices in these areas.

The contractor is responsible for snow and ice removal from any temporary sidewalk placed within the project. Maintain pedestrian access during winter months except as noted in the Pedestrian Access section of this article.

Snow plowing, ice removal including any road salt which may be required, maintenance and cleaning of traffic control devices, and other winter maintenance activities are incidental other items of work under this contract.

Q Enhanced Reference Location Signing

Maintain all existing enhanced reference location signing throughout the duration of the project as shown in the plans.

R Access to sites for Native Prairie Seeding and Tree/Shrub Planting and Care

Obtain prior approval from the engineer for access location(s) to each site identified in the plans for native prairie seeding and tree/shrub installation. Contractor access to the sites shall be from side roads and interchange ramps and not from I-39/90, to the extent possible. Conduct operations in a manner that will cause the least interference to traffic.

Workers, material, and equipment should plan to access sites by traveling off-road within the highway right-of-way to the extent that the routes are navigable by vehicles.

Temporary lane closures and/or halting of traffic on live roadways is restricted to side roads only and shall be no longer than 2 hours per day for delivery of material and/or equipment. A flagging operation is required for any temporary lane closure on a side road. Temporary lane closures shall be according to SDD “Traffic Control For Lane Closure With Flagging Operation”. Flagging operations shall not delay either direction of traffic more than 15 minutes and the contractor shall allow all vehicles in the queue to clear prior to subsequent flagging operations.

Ramps shall remain open to traffic at all times. Ramp shoulder closures will not be allowed within 1000 feet of a ramp gore. Ramp shoulder closures are limited to 2 hours per day for material and/or equipment delivery.

Access to a planting site directly from I-39/90 will only be allowed from a closed shoulder that is 10-ft minimum width. The location of I-39/90 shoulder closures, if necessary for material and/or equipment delivery, must be requested and pre-approved by the department. Include written justification for the shoulder closure and the anticipated duration in the request. The shoulder closure must occur on the same side of the road as the planting work. Workers, equipment, and materials are prohibited from crossing I-39/90. A request for I-39/90 shoulder closure does not constitute approval. I-39/90 shoulder closures must be entered in the Wisconsin Lane Closure System (LCS) as specified in this article. I-39/90 shoulder closures are prohibited when traffic is in a counter-directional configuration on one side of the roadway.

Close shoulders according to the requirements of standard detail drawings 'Traffic Control, Shoulder Closure on Divided Roadway, Speeds Greater than 40 M.P.H.' and 'Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway.'

All materials and equipment may be stored at the planting sites if located outside the planting boundary and inside the highway right-of-way as shown in the plans. No materials and equipment may be stored closer than 36 feet from the edge of any traveled way.

The use of temporary construction access point(s) to I-39/90 from private property is prohibited without the prior written approval from FHWA and the department. Follow the requirements specified in article 'Notice to Contractor-New or Revised Temporary Construction Access to I-39/90' to request this type of access point. Cutting of access control fence must be repaired by the contractor at their expense.

Construction traffic cannot travel counter-directional adjacent to I-39/90 traffic except behind concrete barrier or guardrail.

U-Turns at existing maintenance crossovers or temporary crossovers between the I-39/90 northbound and southbound lanes will not be allowed.

Planting operations affecting the traveling public's safety on I-39/90 will not be allowed during snow and ice conditions, or any other adverse weather conditions, unless approved by the engineer.

If the contractor is unsure whether an individual work operation, for planting or seeding, will meet the traffic safety requirements of the department, review the proposed work operation with the engineer before proceeding with the work.

7. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 39/90, STH 26 and USH 14 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, April 19, 2019 to 6:00 AM Monday, April 22, 2019 for Easter;
- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 28, 2019 for Memorial Day;
- From noon Wednesday, July 3, 2019 to 6:00 AM Monday, July 8, 2019 for Independence Day;
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019 for Labor Day;
- From 12:00 AM Monday October 14, 2019 to 11:59 PM Monday, October 14, 2019 for Columbus Day;
- From noon Friday, November 22, 2019 to 6:00 AM Monday, November 25, 2019 for Deer Hunting;
- From noon Wednesday, November 27, 2019 to 6:00 AM Monday, December 2, 2019 for Thanksgiving;
- From noon Friday, December 20, 2019 to 6:00 AM Thursday, January 2, 2020 for Christmas and New Year's Eve;
- From noon Friday, April 10, 2020 to 6:00 AM Monday, April 13, 2020 for Easter;
- From noon Friday, May 22, 2020 to 6:00 AM Tuesday, May 26, 2020 for Memorial Day;
- From noon Friday, July 3, 2020 to 6:00 AM Monday, July 6, 2020 for Independence Day;
- From noon Friday, September 4, 2020 to 6:00 AM Tuesday, September 8, 2020 for Labor Day;
- From 12:00 AM Monday October 12, 2020 to 11:59 PM Monday, October 12, 2020 for Columbus Day;
- From noon Friday, November 20, 2020 to 6:00 AM Monday, November 23, 2020 for Deer Hunting;
- From noon Wednesday, November 25, 2020 to 6:00 AM Monday, November 30, 2020 for Thanksgiving;
- From noon Wednesday, December 23, 2020 to 6:00 AM Monday, January 4, 2021 for Christmas and New Year's Eve;
- From noon Friday, April 2, 2021 to 6:00 AM Monday, April 5, 2021 for Easter;
- From noon Friday, May 28, 2021 to 6:00 AM Tuesday, June 1, 2021 for Memorial Day;
- From noon Friday, July 2, 2021 to 6:00 AM Tuesday, July 6, 2021 for Independence Day;
- From noon Friday, September 3, 2021 to 6:00 AM Tuesday, September 7, 2021 for Labor Day;
- From 12:00 AM Monday October 11, 2021 to 11:59 PM Monday, October 11, 2021 for Columbus Day;
- From noon Friday, November 19, 2021 to 6:00 AM Monday, November 22, 2021 for Deer Hunting;
- From noon Wednesday, November 24, 2021 to 6:00 AM Monday, November 29, 2021 for Thanksgiving;
- From noon Thursday, December 23, 2021 to 6:00 AM Monday, January 3, 2022 for Christmas and New Year's Eve;
- From noon Friday, April 15, 2022 to 6:00 AM Monday, April 18, 2022 for Easter;
- From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day;
- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 for Independence Day;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day;

- From 12:00 AM Monday, October 10, 2022 to 11:59 PM Monday, October 10, 2022 for Columbus Day.
- From noon Friday, November 18, 2022 to 6:00 AM Monday, November 21, 2022 for Deer Hunting;
- From noon Wednesday, November 23, 2022 to 6:00 AM Monday, November 28, 2022 for Thanksgiving;
- From noon Friday, December 23, 2022 to 6:00 AM Monday, January 2, 2023 for Christmas and New Year's Eve;
- From noon Friday, April 7, 2023 to 6:00 AM Monday, April 10, 2023 for Easter;
- From noon Friday, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Friday, June 30, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- From 12:00 AM Monday October 9, 2023 to 11:59 PM Monday, October 9, 2023 for Columbus Day;
- From noon Friday, November 17, 2023 to 6:00 AM Monday, November 20, 2023 for Deer Hunting;
- From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023 for Thanksgiving;

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8. Railroad Insurance and Coordination - Wisconsin and Southern Railroad Company.

A Description

Comply with standard spec 107.17 for all work affecting Wisconsin and Southern Railroad Company property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Wisconsin and Southern Railroad Company.

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

Also send a copy to the following: Teri Beckman, SW Region Railroad Coordinator; 2101 Wright Street, Madison, WI 53704; Telephone (608) 516-6512; E-mail: teri.beckman@dot.wi.gov.

Include the following information on the insurance document:

- Project: 1005-10-77
- Project Location: Janesville, Wisconsin
- Route Name: IH 39/90, Rock County
- Crossing ID: 392370J
- Railroad Subdivision: Madison
- Railroad Milepost: 102.80
- Work Performed: Bridge Replacement

A.2 Train Operation

Approximately 4 through freight trains operate daily at up to 25 mph. No switching movement occur daily through the crossing.

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

Construction Contact

Roger Schaalma, Superintendent of Maintenance of Way, Wisconsin and Southern Railroad Co.; 1890 East Johnson Street, Madison, WI 53704; Telephone (608) 620-2044; E-mail rschaalma@watcocompanies.com for consultation on railroad requirements during construction.

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

Flagging Contact

See Construction Contact. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

Cable Locate Contact

In addition to contacting Diggers Hotline, contact Amanda Haggerty, Office Administrator; Telephone (608) 620-2048; E-mail ahaggerty@watcocompanies.com at least five working days before the locate is needed. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

WSOR will only locate railroad owned facilities located in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. None

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.5 Temporary Grade Crossing

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

B Railroad Flagging

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in standard spec 107.17.1 are not maintained during construction operations.

The following conditions may also warrant flagging:

1. Cranes swinging (including length of boom/outriggers and /or appurtenances) or handling materials or equipment within 25 feet of the centerline of any track.
2. Construction operations that are in proximity of power lines or railroad signal and communication lines, underground cables, fuel oil facilities or pipe lines and which might result in fire or damage to such facilities, danger to railroad operations or danger to the public in the transaction of business on railroad premises.
3. Excavation, tunneling, blasting, pile driving, placing, or removing cofferdams or sheeting, or similar activities that might cause the railroad's tracks or buildings to be undermined, heaved out of normal level, shifted out of alignment, or otherwise impaired.
4. Bridge painting activities including rigging of falsework, scaffolding or similar activities over railroad tracks.
5. Deck removal activities over railroad tracks.
6. Pouring of bridge decks in spans over an operated track.
7. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

Projects with heavy contractor activity within 25 feet of the centerline of any track or unusual or heavy impact on railroad facilities will normally require a full-time flagger.

The department and railroad will monitor operations for compliance with the above flagging requirements. Violations may result in removal from railroad property until arrangements to adhere to the flagging requirements are satisfied. If the railroad imposes additional flagging requirements beyond the above flagging requirements due to the previous violations, the contractor shall bear all costs of the additional flagging requirements.

C Flagging by Railroad– Railroad Does Not Pay Flagging Costs

C.1 General

Replace paragraph (4) of standard spec 107.17.1 with the following:

Comply with the railroad's rules and regulations regarding operations on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad. Notify the appropriate railroad representative as listed in section A.3 above, in writing, at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

Work that requires railroad flaggers to occupy the work zone for longer duration or longer than the normal work day will require 40 day written notice to the railroad.

C.2 Rates - Wisconsin and Southern Railroad Company

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

- $95 per hour for up to nine-hours at the work-site per day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- $140 per hour for all hours over nine in any week-day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- $190 per hour for up to nine hours at the work-site on Saturdays (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- $190 per hour for all hours over nine on Saturdays (including wages, labor surcharges, meal, lodging, vehicle and mileage expenses).
- $190 per hour for up to nine hours on Sundays or holidays (including wages, labor surcharges, meal, lodging, vehicle and mileage expenses).

C.2 Reimbursement Provisions

The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in section B above, the department will reimburse 50% of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event actual flagging rates exceed the rates stated above, the department will reimburse 100% of the portion of the rate that is greater than the rates stated above.

C.3 Excluded Conditions

The department will not reimburse any of the cost for additional flagging attributable to the following:

1. Additional flagging requirements imposed by the railroad beyond the flagging requirements provided in subsection B above due to violations by the contractor.
2. Temporary construction crossings arranged for by the contractor.

The contractor shall bear all costs of the additional flagging requirements for the excluded conditions.

C.4 Payment for Flagging

The department will pay for the department's portion of flagging reimbursement as specified in section C of this provision under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
801.0117	Railroad Flagging Reimbursement	DOL

The reimbursement payment, as shown on the Schedule of Items, is solely for department accounting purposes. Actual flagging costs will vary based on the contractor's means and methods.

Railroads may issue progressive invoices. Notify the railroad when the work is completed and request a final invoice from the railroad. Promptly pay railroad-flagging invoices, less any charges that may be in dispute. The department will withhold flagging reimbursement until any disputed charges are resolved and the final invoice is paid. No reimbursement for flagging will be made by the department if a violation of subsection B is documented.

D Rail Security Awareness and Contractor Orientation

Prior to entry on railroad right-of-way, the contractor shall arrange for on-line security awareness and contractor orientation training and testing, and be registered through "e-RAILSAFE" for all contractor and subcontractor employees working on railroad right-of-way. See e-railsafe.com "Information". The security awareness and contractor orientation training is shown under the railroad's name.

The department has secured right of entry to railroad property; neither the contractor nor subcontractors or their employees will be required to sign a right of entry form.

The security awareness and contractor orientation certification is valid for 2 year(s) and must be renewed for projects that will carry over beyond the 2 year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.

stp-107-034 (20170615)

9. Utilities.

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

stp-107-065 (20080501)

There are underground and overhead utility facilities located within the project limits. There are known utility adjustments required for the construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to insure the integrity of underground facilities and maintain code clearance from overhead facilities at all times.

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Alliant Energy/Wisconsin Power & Light (Electric) – There are existing underground and overhead facilities within the project limits.

The existing underground facility from 895+70, RT to 906+40, RT will be discontinued in place and a new underground facility installed further east.

The existing overhead pole at 100+74'CE', LT and 104+67'CE', LT will be relocated north beyond the sidewalk construction.

The existing overhead poles and lines from 123+67'CE', LT to 134+86'CE', LT will be removed and replaced underground.

The above work is anticipated to be completed prior to construction.

Conflicts are not anticipated with the signal and lighting bases.

The field contact is Ron Rohm, 3730 Kennedy Road, Janesville, WI 53545; (608) 757-7514; mobile: (608) 751-7935; e-mail: ronaldrohm@alliantenergy.com

Alliant Energy (Gas) – There are existing underground facilities within the project limits.

The existing 8" steel gas main from 99+40'CE' to 137+00'CE' will be discontinued in place and a new 10" steel gas main will be installed from 99+40'CE', RT to 137+00'CE' RT and a new crossing installed at 137+00'CE'.

The existing 4" plastic gas main from 49+40'DDS' to 54+00'DDS' will be relocated approximately 15 feet to the left (west) of the existing line.

All work is anticipated to be completed prior to construction.

The field contact is Kevin Doyle, 935 WBR Townline Road, Beloit, WI 53511-8823; (608) 364-6543; e-mail: kevindoyle@alliantenergy.com

ANR Pipeline Company (Gas) – The existing 10" and 12" gas mains crossing IH 39/90 at approximately Station 888+50 to Station 889+00 will be lowered. This work will be completed before construction.

The existing 30" gas main crossing IH 39/90 at approximately Station 1001+20 and existing 30" gas main crossing STH 26 at approximately Station 130+40'CE' will remain in place. The vent pipes and locators will be relocated to the new right-of-way limits.

The following procedures are to be followed:

No ground disturbance shall be made within the TransCanada right-of-way or within 25 feet, measured at right angles, of our pipeline(s) except in the presence of a company representative.

Notice of at least 72 hours in advance of construction must be provided.

TransCanada will arrange for a representative to be on site when work is occurring on or near the right-of-way area, or within 25-feet of the pipelines. After hours call 1 (800) 447-8066.

The field contact is Dick Mellom, 6827 Consolidated School Road, Janesville, WI 53545; (608) 373-6923 or (331) 256-0815; e-mail: dick_mellom@transcanada.com

ATC (Electric) – The existing overhead line along the east side of IH 39/90 will be relocated to the west side of IH 39/90. This work is anticipated to be completed prior to construction.

The field contact is Mike Olsen, 801 O'Keefe Road, P.O. Box 6113, De Pere, WI 54115-6113; (902) 338-6582: e-mail: molsen@atcllc.com

AT&T Wisconsin (Telephone) – There are existing underground facilities within the project limits.

The existing facility from 900+00, RT to 906+50, RT will be relocated to the east right-of-way.

The existing facility that crosses STH 26 at approximately 98+72'CE' will be relocated to 98+50'CE'.

The existing facility from 98+64'CE', LT to 101+12'CE', LT will be relocated to a crossing at 98+81'CE'.

The existing facility that crosses STH 26 at approximately 104+25'CE' will be relocated to 104+50'CE'.

The existing facility from 130+00'CE', LT to 134+78'CE', LT will be relocated to west.

The existing facility that crosses Kennedy Road at approximately 216+65'KY' will be relocated to 216+57'KY'.

The existing facility from 216+57'KY' to 228+43'KY' will be relocated to the east right-of-way.

The existing facility from 10+70'BR' to 13+14'BR' will be relocated to the south right-of-way.

All work is anticipated to be completed prior to construction.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703; (608) 252-2385; mobile: (608) 622-2079; e-mail: ca2624@att.com

Charter Communications (Fiber) – The existing facility along the NB IH 39/90 east right-of-way will be discontinued from approximately Station 901+00 to Station 906+00. A new line will be placed along the new right-of-way line.

The existing facilities along Kennedy Road and Brentwood Drive will be relocated to the east right-of-way of Kennedy Road to approximately Station 209+00'KY'. The facility will then extend underneath IH 39/90 at approximately Station 1013+50'SB' and then along the east right-of-way line of IH 39/90 and Kennedy Road to approximately Station 228+30'KY'.

The facility along Brentwood Drive will be relocated to the north right-of-way.

The above work is anticipated to be completed prior to construction.

Conflicts are not anticipated with the signal and lighting bases.

The field contact is Brandon Opheim, 1348 Plainfield Avenue, Janesville, WI 53546; (608) 209-3195: e-mail: brandon.opheim@charter.com

City of Janesville (Lighting) - Adjustments to lighting are included in this project.

The field contact is Matt Gosline, 18 N. Jackson Street, Janesville, WI 53548; (608) 755-3160: e-mail: goslinem@ci.janesville.wi.us

City of Janesville (Traffic Signals) - Adjustments to traffic signals are included in this project.

The field contact is Matt Gosline, 18 N. Jackson Street, Janesville, WI 53548; (608) 755-3160: e-mail: goslinem@ci.janesville.wi.us

City of Janesville (Sanitary Sewer) - Adjustments to sanitary sewer are included in this project.

The field contact for sanitary sewer and watermain is Lance Wagner, 2857 Bartells Drive, Beloit, WI 53511; (608) 365-4464 or (608) 295-7702; e-mail: lwagner@rhbatterman.com

City of Janesville (Watermain) - Adjustments to watermain are included in this project.

The field contact for sanitary sewer and watermain is Lance Wagner, 2857 Bartells Drive, Beloit, WI 53511; (608) 365-4464 or (608) 295-7702; e-mail: lwagner@rhbatterman.com

McLeod USA Telecommunications Services (Fiber) There are existing underground facilities within the project limits. No conflicts are anticipated.

The field contact is Kevin Parris, 1858 Wright St, Madison, WI 53704; (608) 819-5016, mobile: (608) 416-3291; e-mail: kevin.j.parris@windstream.com

Rock Energy Cooperative (electric) – The existing underground crossing at Station 986+00 will remain in place.

The field contact is Tony Haffelder, 2815 Kennedy road, Janesville, WI 53547; (920) 728-2379; email: Tonyh@rock.coop

WE Energies (gas) – A new gas main will be installed outside of the right-of-way along the east side of STH 26 from approximately Station 95+84'CE' to Morse Street. Continue the main along the south right-of-way of Morse Street to Ryan Road. Continue the main across Ryan Road along the west right-of-way to the east right-of-way of Deerfield Drive. Continue the main along the east right-of-way of Deerfield Drive outside of the project limits.

It is imperative that the contractor contact WE Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility

without explicit consent from WE Energies. Contractor must call the WE Energies 24 hour dispatch line at 1 (800) 261-5325 to arrange verification.

The field contact is Scott Holstein, 700 S Kane Street, Burlington, WI 53105; (262) 763-1084, mobile: (262) 949-0490.

Project 1005-10-87/5569-00-71

Alliant Energy/Wisconsin Power & Light (Electric) – There are existing underground and overhead facilities within the project limits.

The existing underground facility from 125+00'HE' to 139+50'HE' will be relocated to the south and lowered.

The field contact is Ron Rohm, 3730 Kennedy Road, Janesville, WI 53545; (608) 757-7514, mobile: (608) 751-7935; e-mail: ronaldrohm@alliantenergy.com

Alliant Energy (Gas) – The existing crossing at Station 103+60'HE' will remain in place. Contact Alliant Energy one week prior to provide a watchdog while working in the area of this crossing.

The following crossings and mains will be discontinued in place: 4-inch steel main from 104+09'HW', LT to 127+50'HW', LT, 107+08'HE', 108+88'HW', 108+93'HE', 111+75'HE', 12-inch steel main from 111+75'HW' to 155+00'HW', 12+33'HE', 121+36'HW'

A new main will be installed as follows:

12" steel main from 111+75'HE' to 118+36'HE', 6.5' south of south right-of-way

12" steel main crossing at 118+36'HE' (estimated 12' depth)

4" plastic main crossing at 120+00'HE' and 119+80'HW' (estimated 12' depth)

12" steel main from 118+36'HE' to 155+00'HE', starting 3' north of north right-of-way and extending in a ESE direction parallel to USH 14 (estimated 7'-20' depth)

4" plastic main crossing at 146+80'HE' (estimated 8' depth)

All work is anticipated to be completed prior to construction.

The field contact is Kevin Doyle, 935 WBR Townline Road, Beloit, WI 53511-8823; (608) 364-6543 or (608) 751-2294; e-mail: kevindoyle@alliantenergy.com

ANR Pipeline Company (Gas) – The existing 30" gas main crossing at Station 156+00'HE' will remain in place.

The following procedures are to be followed:

No ground disturbance shall be made within the TransCanada right-of-way or within 25 feet, measured at right angles, of our pipeline(s) except in the presence of a company representative.

Notice of at least 72 hours in advance of construction must be provided.

TransCanada will arrange for a representative to be on site when work is occurring on or near the Right of Way area, or within 25-feet of the pipelines. After hours call 1 (800) 447-8066.

The field contact is Dick Mellom, 6827 Consolidated School Road, Janesville, WI 53545; (608) 373-6923 or (331) 256-0815; e-mail: dick_mellom@transcanada.com

ATC (Electric) – The existing overhead line crossing at approximately 139+50'HE' and extending along the east side of USH 14 will remain in place.

The field contact is Mike Olsen, 801 O'Keefe Road, P.O. Box 6113, De Pere, WI 54115-6113; (902) 338-6582; e-mail: molsen@atcllc.com

AT&T Wisconsin (Telephone) – There are existing underground facilities within the project limits.

The existing manhole at 101+55, LT will be adjusted during construction to match the proposed multi-use path.

The existing underground cable from 103+00 to 104+70, RT will be lowered during construction.

The existing pedestal and underground cable from 104+70 to 105+50, RT will be raised during construction.

The existing handholes at 107+50, LT; 111+75, LT; 117+02, LT; 122+00, LT; 122+00, RT will be relocated and adjusted during construction.

The existing underground fiber optic from 107+30 to 107+70, LT; 108+75 to 108+95, LT; 119+80 to 120+00, LT; 121+00 to 121+20, LT will be exposed and adjusted during construction to avoid conflict with the proposed signal bases.

The existing underground PVC pipe from 129+87 to 130+37, RT will be exposed and adjusted during construction to avoid conflict with the proposed storm sewer.

This work will be completed during construction. Coordination with this work will be required. Contact AT&T 14 days prior to beginning work. All work is anticipated to take a total of 20 days to complete.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703; (608) 252-2385; e-mail: ca2624@att.com

Charter Communications (Fiber) – There are existing underground facilities within the project limits.

The existing facility that crosses USH 14 at 119+81'HE' will be discontinued in place and a new facility will be placed at 50+83'PN', LT and extend west to the USH 14 crossing at 118+75'HE' and extend east to 52+65'PN', LT.

This work will be completed before construction.

The field contact is Brandon Opheim, 1348 Plainfield Avenue, Janesville, WI 53546; (608) 209-3195; e-mail: brandon.opheim@charter.com

City of Janesville (Lighting) - Adjustments to lighting are included in this project.

The field contact is Matt Gosline, 18 N. Jackson Street, Janesville, WI 53548; (608) 755-3160; e-mail: goslinem@ci.janesville.wi.us

City of Janesville (Traffic Signals) - Adjustments to traffic signals are included in this project.

The field contact is Matt Gosline, 18 N. Jackson Street, Janesville, WI 53548; (608) 755-3160; e-mail: goslinem@ci.janesville.wi.us

City of Janesville (Sanitary Sewer) - Adjustments to sanitary sewer are included in this project.

The field contact for sanitary sewer and watermain is Lance Wagner, 2857 Bartells Drive, Beloit, WI 53511; (608) 365-4464 or (608) 295-7702; e-mail: lwagner@rhbatterman.com

City of Janesville (Watermain) - Adjustments to watermain are included in this project.

The field contact for sanitary sewer and watermain is Lance Wagner, 2857 Bartells Drive, Beloit, WI 53511; (608) 365-4464 or (608) 295-7702; e-mail: lwagner@rhbatterman.com

McLeod USA Telecommunications Services (Fiber) There are existing underground facilities within the project limits. No conflicts are anticipated.

The field contact is Kevin Parris, 1858 Wright St, Madison, WI 53704; (608) 819-5016, mobile: (608) 416-3291; e-mail: kevin.j.parris@windstream.com

WE Energies (gas) – A new gas main crossing will be installed at approximately Station 101+78'HE'. All work is anticipated to be completed prior to construction.

It is imperative that the contractor contact WE Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from WE Energies. Contractor must call the WE Energies 24 hour dispatch line at 1 (800) 261-5325 to arrange verification.

The field contact is Scott Holstein, 700 S Kane Street, Burlington, WI 53105; (262) 763-1084 or (262) 949-0490.

Native Prairie Seeding and Tree/Shrub Planting sites

There are underground and overhead utility facilities located within the native prairie seeding and tree/shrub planting sites limits. No utility relocations are necessary for this work. Coordinate planting activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to insure the integrity of underground facilities and maintain code clearance from overhead facilities at all times. Adjustments to the locations of the trees/shrubs may be necessary, as directed by the Corridor Vegetation Inspector, if it becomes evident that there is a utility conflict or one that could occur in the future.

The following utility companies have facilities within or near the planting sites.

Alliant Energy (WP&L) - electric

Alliant Energy (WP&L) - gas

ANR Pipeline - gas

ATC - electric

AT&T Wisconsin - telecommunications

Charter Communications - telecommunications

Consolidated Koshkonong Sanitary District - sewer

Frontier Communications - telecommunications

PaeTec Communications - telecommunications

Rock Energy Cooperative - electric

10. Referenced Construction Specifications.

Construct the work enumerated below conforming to the Standard Specification for Sewer and Water Construction in Wisconsin, latest edition. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

Sanitary Manhole Chimney Seal, Item SPV.0060.660

Construct the work enumerated below conforming to the City of Janesville Standard Specifications for Public Works Construction, latest edition. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

Remove and Salvage Hydrant, Item SPV.0060.650

Hydrant, Item SPV.0060.651

6-Inch Gate Valve With Box, Item SPV.0060.652

4-Foot Diameter Water Valve Vault, Item SPV.0060.653

12-Inch Gate Valve, Item SPV.0060.654

Water Valve Vault Casting, Item SPV.0060.655

Temporary Water Main Blowoff, Item SPV.0060.656

Water Main Cut-In Connection, Item SPV.0060.657

Water Main Offset 16-Inch, Item SPV.0060.658

Water Main Offset 12-Inch, Item SPV.0060.659

Adjusting Hydrant and Auxiliary Valve Box, Item SPV.0060.662

Adjusting Water Valve Box, Item SPV.0060.663

12-Inch Ductile Iron Water Main, Item SPV.0090.650

6-Inch Ductile Iron Water Main, Item SPV.0090.651

11. Other Contracts.

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

It is expected that routine maintenance and mowing by the county and town personnel may be required at certain times concurrently with work being done under this contract.

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

Project 1003-10-84/1005-10-76

These projects involve the reconstruction of IH 39/90 from Avalon Road to USH 14. Coordination with these projects will be required for traffic control staging.

Project 1005-10-78/1005-10-89

This project involves the reconstruction of IH 39/90 from Kennedy Road to Knutson Road. Coordination with this project will be required for traffic control staging.

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

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Emmanuel Yartey at (608) 884-7131. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

13. Environmental Protection.

Broom or brush any mud, dirt, or debris deposited on any roads, as a result of construction activity at the end of the day and as directed by the engineer.

Supplement standard spec 107.18 as follows:

All equipment to be used on the native seed and tree/shrub planting sites must be free of material that may contain weed seed upon entering or exiting the site.

Ensure that all equipment that has been in contact with areas potentially infested with invasive plant species has been decontaminated. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources) for disinfection:

- 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;
- Clean all equipment with hot water of 105°F to 110°F for a period of 30 minutes or hot water of 140°F for a period of 5 minutes. After cleaning, dry all equipment in a sunny location for at least 3 days.

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

Make equipment available for inspection by the Corridor Vegetation Inspector prior to operating within the planting site limits.

14. Erosion Control.

Supplement standard spec 107.20 with the following:

Unless otherwise directed by the engineer at the end of each day, drive a tracked vehicle up and down all untracked or newly graded slopes to reduce the erosive potential of the slopes. The tracks shall be roughly perpendicular to the direction of stormwater runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

Detail each construction phase per year; include plans for staging large fills and detailed plans for placing temporary and permanent erosion control items to provide for winterization of the project.

Delete the last sentence of standard spec 107.20(7) and replace it with the following:

Provide the permanent erosion control measures immediately after performing grading operations, unless temporary erosion control measures are specified or authorized by the engineer.

(5/14/2013)

15. 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 Jennifer Grimes at (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

stp-107-054 (20080901)

16. Coordination with Businesses and Residents.

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and hold two meetings per month thereafter. The contractor shall arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least two weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

17. Contract Award and Execution.

Supplement standard spec 103 as follows:

103.9 Mobilization Workshops

103.9.1 Workshop Schedule

After contract award, attend the following workshops. Each workshop is described below and will include but not be limited to the topics outlined below.

Workshop	Timeframe
Initial Work Plan (IWP)	Prior to Notice to Proceed (NTP)
Cost Reduction Incentive & Submittals	Prior to preconstruction meeting
Utility Coordination	Prior to preconstruction meeting
Baseline CPM Progress Schedule	After NTP & submittal of Baseline CPM Progress Schedule
Work Force Opportunities	Day of preconstruction meeting

The workshop dates will be scheduled by the engineer after contract award. The engineer may modify the original workshop schedule to ensure attendance by the necessary department and contractor personnel. Workshops may be scheduled earlier than specified if agreed to by all parties. Workshops may be deleted and/or combined depending on the complexity and requirements of the project.

103.9.2 Workshops

103.9.2.1 Initial Work Plan

103.9.2.1.1 General

The Initial Work Plan workshop will provide a forum to discuss and answer questions relative to the proposal, bid schedule, and other questions in the Project Questionnaire described in standard spec 103.9.2.1.2. The Initial Work Plan Workshop will include:

1 Contractor responses to the attached Project Questionnaire.

2 Department presentation of the use of CPM scheduling on the project.

3 Contractor presentation of the conceptual work plan for the project.

4 Department and contractor discussion of the level of detail and features in the Initial Work Plan Schedule and the Baseline CPM Progress Schedule.

103.9.2.1.2 Project Questionnaire

Provide the following information in the order shown below. This information will constitute the "Project Questionnaire."

General Information

If a Joint Venture, provide information for each member of the Joint Venture.

1. Provide the following information about the company:
    - Firm Name
    - Address
    - Telephone and facsimile numbers; e-mail address
    - Contracting Specialties
    - Years performing work in contracting specialties
    - Geographic areas served
    - Total Management Employees and years of service
        - Project Managers
        - General Superintendents
        - Craft Superintendents
        - Engineers
        - Estimators
        - CPM Schedulers

Construction Engineering

1 Provide/attach a copy of your Construction Project Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

2 Provide (if applicable) your third-party construction engineering firms.

3 Provide plan for Construction surveying.

Subcontractors

1 Attach the list of all subcontractors that are intended for this project and the items of work they shall perform.

Permanent Material Suppliers

1 Attach the list of all permanent material suppliers that are intended for the project.

Quality Control (where applicable)

1 Provide the name of your Construction Quality Control firm and qualifications indicating the firms' experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

2 Provide/attach a copy of your Construction Quality Control Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

3 List the major elements and/or Table of Contents of your Construction Quality Management Program.

4 Provide the name of your Independent Quality Control Testing firm (Construction Quality Control Lab) and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Organization Chart

1 Provide a functional and personnel Organization Chart showing the authority and responsibilities of each individual identified.

Work Rules

2 Provide the plan for hours per day, days per week, and number of shifts for key elements of work; i.e. sewer tunnels, retaining wall construction, roadway excavation, bridge structures, and roadway structural section activities.

Maintenance of Traffic

1 Provide the name of your Traffic Control Manager and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

2 Attach a copy of your Preliminary Schedule indicating your approach to achieving the substantial completion schedule.

3 Include an outline of your approach to the maintenance of traffic and how you shall stage the construction to meet the substantial completion schedule including planned locations for local street and freeway access into and out of the work zones for each stage of construction.

Construction

1 Provide the approach (resources, equipment, suppliers, number of crews, and where required ground support systems) for the following activities:

2 Retaining wall construction by type of work

3 Bridge demolition

4 Roadway structural section

5 Roadway excavation

6 Underground construction

7 Office and yard facilities

103.9.2.2 Cost Reduction Incentives & Submittals

The Cost Reduction Incentive (CRI) & Submittals workshop will have 2 primary topics outlined below:

Cost Reduction Incentives

Identify value enhancing opportunities and consider modifications to the plans and specifications that will reduce either the total cost, time of construction or traffic congestion, without impairing, in any manner, the essential functions or characteristics of the project, including, but not limited to, service life, economy of operation, ease of maintenance, benefits to the traveling public, desired appearance, or design and safety standards.

Submit recommendations resulting from the workshop for approval by the engineer as cost reduction incentive proposals in conformance with the provisions in standard spec 104.10 "Cost Reduction Incentive."

The department and the contractor may be able to complete the CRI Concept process, as specified in standard spec 104.10.2, during the CRI workshop.

Submit CRIs after the CRI workshops that were not introduced at the CRI workshop.

Submittals

The Submittals Workshop will identify the key required submittals for the project, categorize submittals into functional areas, and develop a schedule for submittals, submittal reviews, and material fabrications and deliveries. The workshop participants will at a minimum:

1. Review the project special provisions.
2. Categorize submittals into functional areas including but not limited to:
    - MSE Retaining Walls
    - Temporary Shoring
    - Falsework and Formwork
    - Girder Shop Drawings, Fabrication, and Delivery Dates
    - Steel Transportation, Delivery, and Erection
    - Structure Demolition Plans
    - Pile Hammers and High Capacity Piling

- Concrete/ Asphalt
- Materials
- ITS / Lighting
- Traffic Signals
- Sanitary Sewer and Water
- Permits

Develop a schedule for submittals. Submittal schedule data shall be incorporated into CPM progress schedule to reflect submittal preparation durations and dates, submittal approval durations and dates, and material fabrication periods with forecasted delivery dates. Reference Baseline CPM Progress Schedule in these special provisions.

103.9.2.3 Utility Coordination

The Utility Coordination Workshop will define the scope and schedule of utility relocation work and the respective roles and responsibilities of the project team.

1 At a minimum, the following key personnel will attend the Utility Coordination Meeting.

2 Department's Utility Coordinator

3 Contractor's Project Manager, Foreman, Supervisor

4 Designer Team's Utility Coordinator

5 Key Utility Company Representative(s)

6 At a minimum, the Utility Coordination Meeting will include a review of the following:

7 Summary of all required utility relocations on the project

8 Special provisions addressing utility work

9 Sharing of contact information

10 Scheduling of work for utility relocation(s) including critical milestones and staging for the work

11 Contractor's work schedule and anticipated conflicts with the utility's construction schedule.

103.9.2.4 Baseline CPM Scheduling

At the Baseline CPM Scheduling workshop, provide a presentation of the Baseline CPM Schedule. In the presentation, include a discussion of the anticipated fabrication and delivery durations for long lead material procurements, construction staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the work. Address comments raised in the engineer's review.

103.9.2.5 Work Force Opportunities

The Work Force Opportunities workshop will provide a venue for contractors to have meaningful dialogue with TrANS providers regarding the hiring of TrANS graduates. For the prime contractor and the subcontractors, provide staff with hiring authority to participate in a job-matching session during this workshop. The workshop will take place on the same day and in the same location as the pre-construction meeting. The workshop participants will at a minimum:

1. Review contractor hiring processes for general labor positions.
2. Review and listen to presentation provided by TrANS providers regarding the training program including details regarding how contractors can hire TrANS graduates.
3. Review TrANS graduate availability for working on project.
4. Meet one-on-one for at least two minutes with each TrANS graduate in attendance at the meeting.

(1/5/2017)

18. Timely Decision Making Manual.

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

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

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

stp-105-005 (20151210)

19. Municipality Acceptance of Sanitary Sewer and Water Main.

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

20. Notice to Contractor – Construction Safety.

Supplement standard spec 107 as follows:

Description

This specification describes minimum occupational safety and health requirements for the prime contractor and their subcontractors performing work on this project. The fundamental objective of these requirements is to eliminate construction related injuries and incidents so that their associated impacts to workers and the public, budgets and schedules are avoided or minimized.

Definitions

Certified Crane Operator. To be certified a crane operator one must pass both written and practical tests offered by a nationally accredited testing organization, such as the National Commission for the Certification of Crane Operators (NCCCO) or the Operating Engineers Certification Program (OECP).

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Critical Lift. A critical lift applies to, but is not limited to the following: any crane lift or hoisting operation that exceeds 75 percent of the rated capacity of the crane, requires the use of more than one crane or hoisting device, involves barge-mounted cranes, where the center of gravity could change, lifts where existing outriggers cannot be fully extended due to site constraints, lifts involving multiple lift rigging assemblies or other non-routine/difficult rigging arrangements.

Project Safety Officer (PSO). The person or persons designated by the department to coordinate implementation of a construction safety management system, including risk assessment, training, evaluating effectiveness, corrective/preventive action, and management review.

Qualified Person. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Safety Representative (SR). A person designated by the contractor to develop and implement the company's health and safety plan, assess job hazards, and identify and carry out corrective and preventive actions.

General Requirements

Notify the department immediately of any agency compliance inspections, including but not limited to the Occupational Safety and Health Administration (OSHA).

Report all project-related fatalities and OSHA-recordable injuries and illnesses that result in inpatient hospitalizations within 8 hours to the Project Safety Officer (PSO). Report all other project-related OSHA-recordable injuries and illnesses monthly to the PSO.

Safety Representative Requirements

Provide at least one Safety Representative (SR). Each SR shall perform inspections, safety observations and other safety-related duties on-site on a weekly basis, at a minimum. Provide an alternate SR in the event of illness or other unforeseen circumstances.

Each SR and alternate SR shall have training, knowledge and experience in construction safety and health, including but not limited to a current OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety and Health. Provide evidence of SR certifications, qualifications and training to the PSO.

Each SR and alternate SR shall attend a 2-hour Construction Safety Awareness Training provided by the department at the beginning of the project and at least once every two years. The SR shall communicate and distribute materials provided in the 2-hour Construction Safety Awareness Training to their site workers prior to starting site construction activities.

Requirements for Construction Health and Safety Programs

In addition to implementing programs to meet the requirements of OSHA Construction Safety and Health standards, develop a written safety plan for the work to be performed. Note: General guidance is provided in Section 1-35.1.2 of the Construction and Materials Manual.

Traffic Control and Vehicle Collision Prevention/Risk Reduction

All vehicles and mobile equipment shall use high-intensity rotating, flashing, oscillating, or strobe lights according to Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).

Provide crash cushions or truck (or trailer)-mounted attenuators (TMAs) on shadow vehicles to protect workers, vehicles, and mobile equipment from vehicle collisions according to the Manual of Uniform Traffic Control Devices (FHWA, 2009, Section 6F.86). Coordinate with the engineer at least 72 hours before placing a TMA in service.

Personal Protective Equipment (PPE)

Minimum Requirement Personal Protective Equipment (PPE) to be worn in Construction Work Areas:

ASTM F2413-11 safety-toed boots rated for impact and puncture resistance (PR) shall be worn.

ANSI Z-87+ impact-resistant safety glasses with sideshields shall be worn. Requirements for faceshields, goggles, welding shades, etc. shall be determined by the SR.

ANSI Z-89.1 Class G or E hard hats where there is potential for impact or injury to the head.

Daytime Work: ANSI/ISEA 107-2004 Class 2 or 3 high visibility vests at all times and Type E pants for flaggers and other personnel working on the traffic side of concrete barriers (yellow/lime).

Nighttime Work: ANSI/ISEA 107-2004 Class 2 or 3 retro-reflective safety vests (yellow/lime) and Type E pants (Type 3 ensemble) and a hard-hat-mounted LED light (“miner’s lamp”).

Hearing protection shall be used, if the work site noise exceeds 90 decibels (dBA), as 8-hour average exposure measurements. [29 CFR 1926.52 and .101]

Walking and Working Surfaces

Keep all accessible work areas and passageways free from debris, obstructions and other slip, trip and fall hazards.

Excessive Driving Hours/Extended Work Shifts

Distribute a one-page handout to each truck driver accessing the work zone to increase their awareness of hazards related to extended work shifts. The department will make the handout available electronically.

Cranes and Hoists.

Ensure that all crane operators have been certified by the National Commission for the Certification of Crane Operators (NCCCO) or by the Operating Engineer Certification Program (OECP) if they will be operating a 10-Ton or greater capacity crane or if they are involved in critical lifts.

Provide critical lift plans to the department at least 72 hours prior to a critical lift. The contractor is responsible for all submittals, assumptions, calculations, and conclusions. 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 design, signed and sealed by the same professional engineer verifying the design, to the engineer.

Crane operators shall safely terminate hoisting operations in the event of wind conditions that exceed the original equipment manufacturer's specifications for safe operation.

Work near American Transmission Company (ATC) 69 kV, 138 kV, and 345 kV Overhead Electric Lines

WisDOT is aware of possible induced voltage on metal objects from overhead 69 kV, 138 kV, and 345 kV electric lines. WisDOT staff are utilizing personal protective equipment (PPE) in the form of insulated gloves when inspecting or working on metal objects in the vicinity of these lines. Please use PPE according to your company policies and OSHA requirements. Consult the current version of the ATC guidance document "Induced Voltage and Nuisance Shocks" (ATC, 2013) for best practices to prevent nuisance shocks when working around these overhead lines.

Documentation and Records

Maintain documents and records and ensure that they are readily available upon request. At a minimum this includes:

a. Written Safety Plan for Work Activities to be Performed
b. Names of Safety Representatives and copies of their OSHA 10-Hour Occupational Safety and Health Training Course in Construction Safety and Health training cards.
c. Names of Competent Persons and Qualified Persons (if required by OSHA for the work performed).
d. Reports of inspections of the job sites, materials, and equipment [29 CFR 1926.20(b)(2)].
e. Documentation that the SR has communicated and distributed materials from the Construction Safety Awareness Training to their site workers. At a minimum this will include a dated sign-in sheet with the names and signatures of the workers trained. The department will provide a sign-in sheet template electronically.
f. Project site OSHA 300 Log (no worker names)[29 CFR 1904.29]
g. Project site OSHA 301 Incident Report (no worker names) [29 CFR 1904.29]
h. Hazard Communication Program [29 CFR 1926.59]
    i. Hazardous Chemical Inventory,
    ii. Location of Safety Data Sheets (SDSs)
    iii. Hazard Warning Symbols
    iv. Information and training requirements.
i. Exposure Monitoring results (if monitoring is required under a specific OSHA standard-no worker names)
j. Crane operator certifications (if applicable)
k. Fall Protection Plan (if applicable) [29 CFR 1926.500-.503 and 1926.104]
l. Confined Space Entry Procedures (if applicable). [29 CFR 1926.1200-.1213]
m. Lockout/Tagout Procedures (if applicable). [29 CFR 1926.417 and .702]
n. Respiratory Protection Program (if applicable) [29 CFR 1926.103 and 1910.134(c)]
o. Emergency Action Plan [29 CFR 1926.35]
    i. Emergency escape procedures and emergency escape route assignments
    ii. Procedures to be followed by employees who remain to operate critical equipment before they evacuate
    iii. Procedures to account for all employees after emergency evacuation has been completed
    iv. Rescue and medical duties for those employees who are to perform them;
        - First Aid and Medical Treatment Procedures [29 CFR 1926.50]
        - Equipment and Supplies
        - Names of persons certified in first aid
        - Location of the nearest medical facility.
    v. The preferred means of reporting fires and other emergencies
    vi. Prime contractor's alarm system
    vii. Names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.
p. Fire Protection Program (if applicable) [29 CFR 1926.150]
q. Fire Prevention Plan and Hot Work Permit procedures (if applicable) [29CFR 1926.352]

(2/21/17)

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

Structures B-53-65/66 (USH 14) and B-53-86 (STH 26)

John Roelke, License Number AII-119523, inspected Structure B-53-65/66/86 for asbestos on August 31, 2009. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

Structures B-53-85 (STH 26), B-53-83/84 (WSOR) and B-53-81/82 (Kennedy Road)

John Roelke, License Number AII-119523, inspected Structure B-53-85/83/84/81/82 for asbestos on June 5, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

According to NR447 and DHS159 , ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Jennifer Grimes, (608) 884-1147, Jennifer.Grimes@dot.wi.gov 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:

1005-10-77

- Site Name: Structure B-53-65, IH 39/90 southbound over USH 14
- Site Address: Latitude 42°43’02”N/Longitude 88°59’06”W, Section 17 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1961 with a concrete overall in 1987, an asphalt overlay in 2000 and widening in 2016.
- Area: 20246 SF of deck

- Site Name: Structure B-53-66, IH 39/90 northbound over USH 14
- Site Address: Latitude 42°42’59”N/Longitude 88°59’03”W, Section 17 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1961 with a widening and redeck in 1987 and asphalt overlay in 2000.
- Area: 12319 SF of deck

- Site Name: Structure B-53-81, IH 39/90 southbound over Kennedy Road
- Site Address: Latitude 42°44’14”N/Longitude 89°00’18”W, Section 7 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 56 years old. This structure was constructed in 1962 with redeck in 1987, asphalt overlay in 2000 and redeck and widening in 2003.
- Area: 19738 SF of deck

- Site Name: Structure B-53-82, IH 39/90 northbound over Kennedy Road
- Site Address: Latitude 42°44’13”N/Longitude 89°00’15”W, Section 7 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 56 years old. This structure was constructed in 1962 with redeck in 1987 and concrete overlay and widening in 2004.
- Area: 18826 SF of deck

- Site Name: Structure B-53-83, IH 39/90 southbound over WSOR
- Site Address: Latitude 42°43’46”N/Longitude 88°59’54”W, Section 7 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1961 with a concrete overlay in 1987 asphalt overlay in 2000 and redeck and widening in 2003.
- Area: 8819 SF of deck

- Site Name: Structure B-53-84, IH 39/90 northbound over WSOR
- Site Address: Latitude 42°43’46”N/Longitude 88°59’55”W, Section 7 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 57 years old. This structure was constructed in 1961 with a concrete overlay in 1987 and redeck and widening in 2004.
- Area: 8636 SF of deck

- Site Name: Structure B-53-85, IH 39/90 southbound over STH 26
- Site Address: Latitude 42°43’33”N/Longitude 88°59’36”W, Section 18 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 56 years old. This structure was constructed in 1962 with a concrete overlay in 1987, asphalt overlay in 2000 and 2010 and widening in 2016.
- Area: 13988 SF of deck

- Site Name: Structure B-53-86, IH 39/90 northbound over STH 26
- Site Address: Latitude 42°43’33”N/Longitude 88°59’33”W, Section 18 Town 3N Range 13E, City of Janesville
- Ownership Information: WisDOT Transportation Southwest Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Emmanuel Yartey
- Phone: (608) 884-7131
- Age: 56 years old. This structure was constructed in 1962 with a concrete overlay in 1987 and asphalt overlay in 2000.
- Area: 9448 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20120615)

22. Notice to Contractor – Revisions to Traffic Control Plans.

The traffic control and staging plans/details contained within the project plans have been developed from an FHWA approved Transportation Management Plan (TMP). According to TMP requirements, the department will revise the TMP during construction if conditions warrant. This specification shall be followed to obtain concurrence for implementation of any proposed changes to construction phasing/staging that will affect the traffic patterns depicted in the plans.

Submit traffic control revision(s) to the engineer a minimum of 21 calendar days prior to the anticipated implementation of the proposed change(s). Include the following:

Detail on existing or new project plan sheets that show:

The revised traffic pattern, widths, grades, temporary pavement, signs, traffic control devices, pavement marking, flaggers, time of day, width restrictions, and any other details required to convey a new or revised traffic control design.

Erosion control measures required, including the location(s) of any tracking pad(s).

Written summary of proposed traffic control change including:

- Benefits to implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the motoring public).
- Timeframe to construct, duration in place, and time to remove.

The request will be reviewed, and if warranted, concurred with designated I-39/90 Corridor Management Team (CMT) staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If the request is approved, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer will correspond with the following FHWA and department staff to obtain concurrence:

- Anna Varney, FHWA, Anna.Varney@dot.gov
- Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov
- Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

(10/3/2016)

23. Notice to Contractor – New or Revised Temporary Construction Access to I-39/90.

Traffic control and staging plans/details contained within the project plans shall be followed by the contractor. The contractor's use of any construction access point(s) to I-39/90 which is/are not shown in the plans is prohibited without the prior written approval from FHWA and the department. To obtain written approval for temporary access to I-39/90 during construction, the contractor shall provide the following:

Details on existing or new project plan sheets that show:

- The location, dimensions, grades, and slopes for any new/revised temporary construction access point(s) to I-39/90.
- Traffic control measures that are required to manage this access change.
- Traffic control measures that are required to secure/close any new/revised construction access points when not in use.
- Erosion control measures required to manage this change, including the location(s) of any tracking pad(s).

Written summary of proposed temporary construction access change including:

- Timeframe to construct, duration in place, and time to remove.
- Cost of proposed temporary access including grading, traffic control, erosion control, and all other items and incidentals to implement and remove the access.
- Benefits in implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the motoring public).
- Signed Construction Permit if temporary access traverses private property.

The above information shall be provided to the engineer a minimum of 14 calendar days prior to the contractor's anticipated implementation of the new/revised temporary construction access to I-39/90. The request will be reviewed, and if warranted, concurred with designated I-39/90 CMT Traffic and Project staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If these

parties concur with the request, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer will correspond with the following FHWA and department staff for concurrence:

- Anna Varney, FHWA, Anna.Varney@dot.gov
- Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov
- Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

In the event of an emergency situation the above review process, including the extent of information required to be submitted and approval timeframes, can be modified if agreed upon by all parties. (10/3/2016)

24. Notice to Contractor – Airport Operating Restrictions - General.

A temporary permit is not required from the Federal Aviation Administration (FAA) for the permanent or temporary installations that are included in the plans as long as the contractor uses equipment that will not exceed 200 feet above ground level. The contractor shall submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA a minimum of 45 days before beginning construction operations that propose to use equipment that will exceed 200 feet above ground level.

If required, the FAA will return FAA Form 7460-2, Notice of Actual Construction or Alteration, with a determination. The contractor shall complete and send FAA Form 7460-2, Part 1 to the FAA at least 48 hours prior to starting the actual construction or alteration of a structure. Additionally, the contractor shall submit Part 2 no later than 5 days after the structure has reached its greatest height.

Contact Justin Hetland, Airspace Safety Program Manager, Bureau of Aeronautics at (608) 267-5018 (Justin.Hetland@dot.wi.gov) with any questions. Refer to the following FAA website for instructions to complete the form and the required information.
https://oeaaa.faa.gov/oeaaa/external/portal.jsp

(1/5/2015)

25. Notice to Contractor, Subcontractor Pre-Certification.

Pre-certification is required for native prairie seeding (with follow-up surveillance and care), and tree/shrub installation (with follow-up surveillance and care).

Subcontractors from each of the pre-certified lists titled "Native Seed Installation and Restoration Management" and "Woody Vegetation Installation and Restoration Management" shall perform the work associated with the pertinent items listed further in this article. The same subcontractor is allowed if that subcontractor is on both lists.

The pre-certified lists are located on the department's Highway Construction Contract Information (HCCI) web site.

Subcontractors or entities not on the department list are not permitted to perform the work.

Native Seed Installation and Restoration Management pre-certification is required for the following pay items:

SPV.0005.501 Pre-Planting Vegetation Treatment
SPV.0005.502 Seed Bed Preparation
SPV.0060.506 Native Seed Surveillance and Care Cycles
SPV.0085.509 Seeding Native Mix N1
SPV.0085.510 Seeding Native Mix N2
SPV.0085.511 Seeding Native Mix N3
SPV.0085.512 Seeding Native Mix N4

Woody Vegetation Installation and Restoration Management pre-certification is required for the following pay items:

632.0101 Trees
632.0201 Shrubs
632.9101 Landscape Planting Surveillance and Care Cycles
SPV.0035.500 Planting Mixture
SPV.0035.501 Topsoil Special
SPV.0060.500 Perennials, Feather Reed Grass (Karl Foerster), Container #1

SPV.0060.501 Perennials, Little Bluestem (Blue Heaven), Container #1
SPV.0060.502 Perennials, Prairie Dropseed (Tara), Container #1

At the preconstruction meeting or 14 days prior to the start of construction, whichever date is earlier, submit the names, positions, experience, and qualifications of all personnel to be used on this project that were not listed in the Request for Qualifications. Any new personnel must be approved by the department before vegetation management work begins.

26. Electrical Work By Others.

Under projects 1005-10-77, 1005-10-87, and 5569-00-71, the Wisconsin Department of Transportation Southwest Region Electrical Unit will perform the following work for WisDOT maintained traffic signal and lighting systems:

- Complete and authorize electrical service installation applications.
- Furnish equipment/materials for installation including: Cat-5E and fiber optic cable, traffic signal cabinets, emergency preemption equipment, communications equipment, and adaptive signal cameras.
- Provide all permanent traffic signal timing.

27. Street Lighting, Traffic Signal and Diversion Trigger Systems – General.

Work completed under projects 1005-10-77, 1005-10-87, and 5569-00-71 includes electrical and communications systems for WisDOT and City of Janesville. The following general provisions apply when working on these systems.

Contacts and Facility Location Information

For the purposes of this contract the primary point of contact for WisDOT Southwest Region traffic signals will be Graham Heitz, graham.heitz@dot.wi.gov, (608) 246-5362, 2101 Wright Street, Madison, WI.

Provide for equipment pick-up and salvaged equipment delivery in the following location:

- Southwest Region Electrical Shop - 2101 Wright Street, Madison, WI

For the purposes of this contract the primary point of contact for City of Janesville traffic signals and street lighting will be Matt Gosline, goslinem@ci.janesville.wi.us, (608) 755-3160, 18 N Jackson St, Janesville, WI 53548.

Provide for salvaged equipment delivery to the following location:

- City of Janesville Services Center – 2200 North USH 51, Janesville, WI

WisDOT Maintained Traffic Signals

This contract includes electrical work being completed at the following intersections:

USH 14 Corridor

- Lexington Drive
- Pontiac Drive
- IH 39 Southbound Ramp
- IH 39 Northbound Ramp
- Deerfield Drive

STH 26 Corridor

- USH 14
- Morse Street
- IH 39 Southbound Ramp
- IH 39 Northbound Ramp
- Kettering Street

WisDOT Maintained Adaptive Traffic Signal System
This contract includes electrical and communications work being completed along IH 39/90 and at multiple intersections along STH 26 and USH 14 corridors. The project area includes 10 intersections within a 15-intersection adaptive traffic signal system. Work included under this contract consists of removing existing, and installing new adaptive traffic signal equipment. Work also includes relocating and operating remote wireless microwave detectors along IH 39/90, and communications and control equipment housed in traffic signal cabinets at the USH 14 interchange. System integration for this work will be paid under the Electrical Systems Integrator item.

City of Janesville Maintained Traffic Signals

This contract includes electrical work being completed at the following intersections:

- Deerfield Drive and Ryan Road
- Pontiac Drive and Pontiac Place

WisDOT Maintained Street Lighting
This contract includes electrical work being completed adjacent to and along IH 39, USH 14, and STH 26. Work included under this contract consists of installing new lighting circuits. There is currently no existing WisDOT lighting within the project limits.

City of Janesville Maintained Street Lighting
This contract includes electrical work being completed adjacent to and along USH 14, STH 26, Ryan Road, and Deerfield Drive. Work included under this contract consists of replacing and restoring segments of existing lighting circuits, and installing new lighting circuits.

Project Schedule
Compile all material submittals within 2-weeks of contract award and provide to the engineer for review and approval. Approvals must be completed as early as possible to provide adequate lead time from material suppliers.

Electrical Services
This contract includes the removal and installation of a significant number of electrical services throughout the project limits. Identify each electrical service location by customer, use, and timeframe for removal/installation. Provide written documentation of the service identification to the engineer, including updates as construction progresses.

Existing Electrical Systems
This contract includes performing retro-fit work on existing electrical systems. Anticipate the effort to perform verification of existing systems including conduit connections, cable-fill capacity, cabling patterns and circuit routing. Portions of existing electrical facilities were un-mapped and have been shown as a best fit of as-built mapping and field survey. Document discrepancies in field conditions and provide to the engineer. Consider work described above to be incidental to the work items included in this contract.

Document Existing Equipment
This contract includes salvage and reinstallation of a significant amount of existing traffic signal equipment. Document the location, condition, attachments, cable routing for all existing equipment noted for removal or salvage. Include labels to track existing equipment. Provide documentation of existing equipment to the engineer. Provide a list of any equipment noted for salvage that is in poor condition or otherwise unable to reinstall.

Salvage and deliver all City of Janesville equipment deemed of suitable condition. Confirm with WisDOT for salvaged equipment. Consider work described above to be incidental to the work items included in this contract.

28. Design Model Data.

The department will provide electronic design data for project 1005-10-77, 1005-10-87 and 5569-00-71. The data provided is for the bidder's general knowledge only and is not a part of the contract. The department assumes no responsibility for discrepancies between the data provided and the contract documents.

The department will provide the project contractor data packet before the project let date within five business days of a contractor request submitted by email to Derek Potter at Derek.Potter@dot.wi.gov.

The contractor data packet contains the following:

1. Field control data, LandXML v1.2 file
2. Existing topographic data, 2D AutoCAD DWG files
    a. Mapping
    b. Utilities
3. Reference line alignments and proposed profiles, LandXML v1.2 file(s)
4. Superelevation transition information, comma separated value (csv) text file(s)
5. Proposed roadway features, 2D AutoCAD DWG file
6. Proposed structure horizontal features, 2D in AutoCAD DWG file
7. Surface models, LandXML v1.2 files and AutoCAD DWG files containing 3D face objects representing surface TIN triangles of surface models as follows:
    a. Existing ground surface
    b. Proposed top surface
        i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts
        ii. Top of shoulder and top of pavement within the roadway subgrade
    c. Proposed datum surface
        i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts
        ii. Subgrade surface within the roadway subgrade shoulder points
8. Proposed surface model longitudinal breaklines, 3D AutoCAD DWG files
9. Surface model outer boundaries, 3D AutoCAD DWG file
10. Slope stake report, comma separated value (csv) text file
11. Earthwork data, Excel spreadsheet xlsx file(s)
12. Right of Way and easement data, LandXML v1.2 file and 2D AutoCAD DWG file
13. Metadata information

(10/31/2017)

29. Clearing and Grubbing, Items 201.0105 and 201.0205.

Supplement standard spec 201.3 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 species attacked by emerald ash borer include the following:

- 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. Blue ash twigs are 4-sided.

- White ash (F. americana) tends to occur primarily in upland forests, often with Acer saccharum.
- Includes all horticultural cultivars of these species.

(Note: blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems.)

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

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with flagging tied around the trunk perimeter (florescent lime is suggested as it isn't identified with other project activities).

Follow and obey the following DATCP order:

ATCP 21.17 Emerald Ash Borer, Import Controls and Quarantine

1. 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.

2. Regulated items.

   The following are regulated items for purposes of sub. (2):

   a) The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.

   b) Ash trees.

   c) Ash limbs, branches, and roots.

   d) Ash logs, slabs or untreated lumber with bark attached.

   e) Cut firewood of all non-coniferous species.

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

   g) 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.

Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for disposal:

Chipped ash trees

1) May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.
2) May be buried on site within the right-of-way according to standard spec 201.3 (14).
3) May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer according to standard spec 201.3 (15).

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

(8/18/2014)

30. Debris Containment Structure B-53-65, Item 203.0225.S.001; Debris Containment Structure B-53-66, Item 203.0225.S.002; Debris Containment Structure B-53-85, Item 203.0225.S.003; Debris Containment Structure B-53-86, Item 203.0225.S.004; Debris Containment Structure B-53-83, Item 203.0225.S.005; Debris Containment Structure B-53-84, Item 203.0225.S.006.

A Description

This special provision describes providing a containment system to prevent debris from structure removal, reconstruction, or other construction operations from falling onto facilities located under the structure. Using this containment system does not relieve the contractor of requirements under standard spec 107.17 and standard spec 107.19 or requirements under a US Army Corps of Engineers Section 404 Permit.

B (Vacant)

C Construction

Before starting work, submit a debris containment plan to the engineer for review. Incorporate engineer-requested modifications. Do not start work over the associated roadway or railroad until the engineer approves the debris containment plan.

Maintain adequate protection throughout construction for people and property within the potential fall zone. Ensure that a containment system capable of protecting underlying facilities from falling construction debris is in place before beginning deck repair, parapet removal, or other operations that may generate debris.

At least 15 working days before conducting potential debris generating operations, contact the following owners or lessees:

1. Construction Manager – Emmanuel Yartey; (608) 884-7314; emmanuel.yartey@dot.wi.gov
2. Construction Engineer (consultant)

D Measurement

The department will measure Debris Containment (structure) as a single lump sum unit of work for each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
203.0225.S.001	Debris Containment Structure B-53-65	LS
203.0225.S.002	Debris Containment Structure B-53-66	LS
203.0225.S.003	Debris Containment Structure B-53-85	LS
203.0225.S.004	Debris Containment Structure B-53-86	LS
203.0225.S.005	Debris Containment Structure B-53-83	LS
203.0225.S.006	Debris Containment Structure B-53-84	LS

Payment is full compensation for furnishing, installing, maintaining, and removing a debris containment system.

stp-203-010 (20080902)

31. Abandoning Sewer, Item 204.0291.S.

A Description

This special provision describes abandoning existing sewer by filling it with cellular concrete as the plans show and conforming to standard spec 204 and standard spec 501 as modified in this special provision.

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 the engineer directs. 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 as specified in standard spec 109.1.3.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

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

stp-204-050 (20080902)

32. Removing One Sided Vertical Panels, Item 204.9060.S.001.

A Description

This special provision describes removing one sided vertical panels conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing One Sided Vertical Panels as each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing One Sided Vertical Panels	EACH

stp-204-025 (20150630)

33. Removing Gates Pipe Single Leaf, Item 204.9060.S.002.

A Description

This special provision describes removing single leaf pipe gates conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing Gates Pipe Single Leaf as each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.002	Removing Gates Pipe Single Leaf	EACH

stp-204-025 (20150630)

34. Removing Discontinued Gas Main Steel Pipe 8-Inch, Item 204.9090.S.001; 12-Inch, Item 204.9090.S.002.

A Description

This special provision describes removing discontinued steel pipe gas mains conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing Discontinued Gas Main Steel Pipe (size) in linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.001	Removing Discontinued Gas Main Steel Pipe 8-Inch	LF
204.9090.S.002	Removing Discontinued Gas Main Steel Pipe 12-Inch	LF

stp-204-025 (20150630)

35. Removing Discontinued Water Main Ductile Iron 16-Inch, Item 204.9090.S.003.

A Description

This special provision describes removing discontinued ductile iron water main conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing Discontinued Water Main Ductile Iron 16-Inch by the linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.003	Removing Discontinued Water Main Ductile Iron 16-Inch	LF

stp-204-025 (20150630)

36. Removing Discontinued Sanitary Main Concrete Pipe 10-Inch, Item 204.9090.S.004.

A Description

This special provision describes removing discontinued sanitary main concrete pipe conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing Discontinued Sanitary Main Concrete Pipe 10-Inch by the linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.004	Removing Discontinued Sanitary Main Concrete Pipe 10-Inch	LF

stp-204-025 (20150630)

37. Removing Temporary Overhead Electrical Feed, Item 204.9105.S.001.

A Description

This special provision describes removing the temporary overhead electrical feed conforming to standard spec 204.

B (Vacant)

C Construction

Remove the temporary overhead electrical feed when the permanent underground electrical infrastructure is completed with construction of USH 14. Restore the site to its previous condition, including backfilling post holes and compacting every 12 inches with engineer-approved material.

D Measurement

The department will measure Removing Temporary Overhead Electrical Feed 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
204.9105.S.001	Removing Overhead Electrical Feed	LS

Payment is full compensation for removing electrical feed, temporary poles, disposal of all removed materials and for backfilling and restoring the site to match surroundings.

stp-204-025 (20150630)

38. Removing Concrete Flumes, Item 204.9180.S.001.

A Description

This special provision describes removing concrete flumes conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing Concrete Flumes by the square yard, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9180.S.001	Removing Concrete Flumes	SY

stp-204-025 (20150630)

39. Roadway Excavation.

Excavation of frozen ground directed by the engineer to maintain work as scheduled will be paid for as common excavation. Backfilling of these excavated areas will be paid for as either Roadway Embankment or Select Borrow as directed by the engineer. This does not relieve the contractor of their responsibility to protect the subgrade from further freezing of the soils prior to or after this excavation or the timely backfilling of any areas excavated due to frozen conditions.

Supplement standard spec 205.5.2(1) to include the following:

Provide the department with an earth flow diagram within 30 calendar days of receiving the contract Notice to Proceed.

Identify on the earth flow diagram, all excavation material within the project; material shrinkage and swell factors; acceptable on-site material available for use as embankment within the project; anticipated off-site material that will be required for use as embankment within the project (if applicable); and anticipated material to be disposed of off-site (if applicable). It is the sole responsibility of the contractor to prepare their individual investigation and testing program to establish material shrinkage and swell factors.

(6/29/2015)

40. Borrow.

Replace standard spec 208.1(1) with the following:

This section describes constructing embankments and other portions of the work consistent with the earthwork summary and defines the contract requirements for embankment material if required by the plans or if the contractor elects to utilize off-site material to complete the roadway embankments.

Delete standard spec 208.2.2(2).

Supplement standard spec 208.3 to include the following:

The contractor shall be responsible for complying with all permit requirements in obtaining embankment materials.

Supplement standard spec 208.4 with the following:

The department will not measure embankment material from its source.

Supplement standard spec 208.5 with the following:

The department will not pay directly for work specified under this section pertaining to Borrow. This work is included in the Roadway Embankment bid item.

(5/31/2016)

41. Select Borrow, Item 208.1100.

Conform to the requirements of standard spec 208 and as hereinafter provided.

Materials

Furnish and use material that consists of granular material meeting the following requirements: Maximum particle size of 12 inches when measured from any face. The material passing the No. 4 sieve shall have a maximum of 15% by weight passing the No. 200 sieve.

As a contractor's option, the department will allow the use of select crushed material for select borrow. The material shall conform to the requirements of standard spec 312, and will be measured and paid for as Select Borrow.

Measurement

Replace standard spec 208.4 with the following:

The department will measure select borrow by the cubic yard acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

1. The engineer and contractor mutually agree to an alternative volume calculation method;
2. The method of average end areas is not feasible.

If it is not possible to compute volumes of select borrow by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure select borrow material beyond the limits of the required slopes as shown on the plans.

(11/29/2016)

42. Base Aggregate Dense 3/4 –Inch, item 305.0110.

Revise standard spec 301.2.4.3 as follows:

Furnish aggregate classified as crushed stone, from a department-approved quarry, for 3/4-inch base when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

(1/5/2017) (SWR 305.01-09212015)

43. Base Aggregate Dense 1 1/4-Inch for Lower Base Layers.

Revise standard spec 305.2.2.1 when base is ≥ 50% crushed gravel as follows:

Use 1 1/4-inch base aggregate that conforms to the following gradation requirements.

SIEVE	PERCENT PASSING BY WEIGHT
1 1/4 inch	95 - 100
1 inch	---
3/4 inch	70 - 90
3/8 inch	45 - 75
No. 4	30 - 60
No. 10	20 - 40
No. 40	7 - 25
No. 200	3 - 10 [1]

[1] Limited to a maximum of 8.0 percent for base placed between old and new pavement.

(7/26/2017) (SWR 305.02-08032016)

44. Coloring Concrete Custom, Item 405.0200.

This special provision describes coloring concrete SWR Brown for incorporation full-depth in work constructed under other contract bid items. Conform to standard spec 405 as modified in this special provision.

Replace standard spec 405.2.1.1(1) with the following:

(1) Integrally color concrete using non-fading pigments conforming to ASTM C979.

- For SWR Brown: use the correct synthetic pigment at a loading by weight of total cementitious material in the mix to match the concrete color in reasonably close conformance with SWR Brown color, which is similar to Federal Standard 595 - FS 30140.

Replace standard spec 405.2.1.1(3) with the following:

(3) The department will accept the color based on comparison to the Federal Color Code examples. Provide samples for the department to approve 30 days prior to ordering concrete coloring.

stp-405-020 (20160607)

45. Concrete Pavement.

Supplement standard spec 415 with the following:

415.3.3 Preparing the Foundation

Add the following text:

Place multiple layers of polyethylene sheets over the entire area where concrete pavement contacts the concrete masonry associated with the MSE wall. Total thickness of the polyethylene sheets shall be at least 0.03 inches.

Modify standard spec 415.3.6 with the following:

415.3.6 Placing Concrete

Add the following as standard spec 415.3.6.4:

415.3.6.4 Concrete Protective Surface Treatment

(1) This specification applies to all sawed concrete joints on the IH 39/90 interstate mainline and ramps, also including sawed joints on concrete shoulders, and to all concrete placement methods. Treat sawed surfaces of transverse and longitudinal joints with a silane joint sealant found on the department approved products list for Concrete Protective Surface Treatments. Prepare surface by pressure washing all saw slurry from sawed joints and allow to dry thoroughly prior to application of silane sealer. Apply the product directly to the interior of the sawed joint. Do not use the broadcast spray method of application.

415.5.1 General

Add the following text:

(6) Payment for multiple layers of polyethylene sheets placed at locations where concrete pavement contacts the concrete masonry associated with the MSE wall is considered incidental to the Concrete Pavement bid items include in the contract.

(1/5/2017)

46. Rout and Seal, Item 415.6000.S.

A Description

This special provision describes routing, cleaning, drying, and sealing the longitudinal edge of pavement joints in new asphaltic pavement shoulders immediately adjacent to the edge of the concrete mainline pavement.

B Materials

Furnish material that conforms to the requirements of the Specifications for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements, ASTM Designation: D 6690, Type II, modified to require that the bond strength test be run at -20 degrees F. (The unmodified ASTM D 6690, Type II allows this test to be run at either 0 degrees F or -20 degrees F.)

Deliver each lot or batch of sealing compound to the jobsite in the manufacturer's original sealed container. Mark each container with the manufacturer's name, batch or lot number, and the safe heating temperature. Present the manufacturer's certification stating that the compound meets the requirements of this specification. Before applying the sealant, furnish to the engineer a certificate of compliance and a copy of the manufacturer's recommendations on heating and applying the sealant.

C Construction

C.1 Equipment

Heat the sealing compound to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. If and when using the heating kettle on concrete

or asphaltic pavement, properly insulate the heating kettle to ensure heat is not radiated to the pavement surface.

Make rout cuts in a single pass. Two-pass cutting will not be allowed. Use a self-propelled mechanical router capable of routing the bituminous pavement to provide a 1.0:1.0 depth to width ratio of all routed cracks. The router blade or blades shall be of such size and configuration to cut the desired joint reservoir in one pass. No spacers between blades shall be allowed unless the contractor can demonstrate to the engineer that the desired reservoir and rout cut can be obtained with them. Either wet or dry routing will be permitted provided the above conditions are met. Use a pressure distributor for applying sealing material through a hand-operated wand or nozzle according to sealant manufacturer's instructions.

C.2 Methods

Conduct the operation so that the routing, cleaning, and sealing are continuous operations. Traffic shall not be allowed to knead together or damage the routed joints. Rerout, if necessary, routed joints not sealed before traffic is allowed on the pavement when routing and sealing operations resume. Do not perform rout cutting, cleaning, and sealing, within 48 hours of the placement of the shoulder's surface course.

Rout the longitudinal joint to a minimum width of 3/4 inches and a minimum depth of 3/4 inches. Use a power vacuum or equivalent to immediately remove any routing slurry, dirt, or deleterious matter adhering to the joint walls or remaining in the joint cavity, or both. Before sealing, dry the cleaned joints either by air-drying or by using a high capacity torch. Immediately before sealing, blow out the dried crack with a blast of compressed air, 80-psi minimum. Continue cleaning until the joint is dry, and until all dirt, dust, or deleterious matter is removed from the joint and adjacent pavement to the satisfaction of the engineer. If the air compressor produces dirt or other residue in the joint cavity, the contractor shall be required to clean the joint again.

If cleaning operations could cause damage to, or interfere with, traffic in adjacent lanes, or both, provide protective screening that is subject to the approval of the engineer to the cleaning operation.

Following cleaning, dry the routed joints and warm them with a hot air lance. Take care not to burn the pavement surface. Under no circumstances shall more than two minutes elapse between the time the hot air lance is used and the sealant is placed.

Provide positive temperature control and mechanical agitation. Do not heat the sealant to more than 20 degrees F below the safe heating temperature. The safe heating temperature can be obtained from the manufacturer's shipping container. Provide a direct connecting pressure type extruding device with nozzles shaped for insertion into the joint. Immediately remove sealant spilled on the surface of the pavement.

Seal the joints when the sealant material is at the pouring temperature recommended by the manufacturer. Fill the joint such that after cooling, the sealant is flush with the adjacent pavement surface. Do not overfill the joint; the engineer may allow a very slight overband. Sand shall not be spread on the sealed joints to allow for opening to traffic. Before opening to traffic, the sealant shall be tack free.

D Measurement

The department will measure Rout and Seal in length by the linear foot, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
415.6000.S	Rout and Seal	LF

Payment is full compensation for rout cutting; cleaning the joint; and rerouting as required under C.2.

stp-415-100 (20140630)

47. HMA Pavement Modification.

A Description

This special provision describes specialized material requirements for HMA Pavements. Conform to standard spec 460 as modified in this special provision.

Replace the noted HMA mixture values in Table 460-2 under 460.2.7 with the following:

1. LA Wear (AASHTO T96) – LT, MT, HT, and SMA mixtures:
    - 100 revolutions – 13% loss maximum
    - 500 revolutions – 40% loss maximum
2. Soundness (AASHTO T104) (sodium sulfate) – LT, MT, HT, and SMA mixtures:
    - 9.0% loss maximum
3. Freeze/ Thaw (AASHTO T103) (specified counties) – LT, MT, HT, and SMA mixtures:
    - 12% loss maximum

Replace Note 3 at the end of Table 460-2 under 460.2.7 with the following:

[3] For No. 5 (9.5 mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 73 – 76%.

(07/13/2016)

48. QMP HMA Pavement Nuclear Density.

A Description

Replace standard spec 460.3.3.2 (1) and standard spec 460.3.3.2 (4) with the following:

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures.

https://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf

(4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:

http://www.atwoodsystems.com/

B Materials

B.1 Personnel

(1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.

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

B.2 Testing

(1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges from the department's approved product list at

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx

(2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.

(3) Before each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:

Materials Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: (608) 243-5998

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

(1) Select a representative section of the compacted pavement before or on the first day of paving for the comparison process. The section does not have to be the same mix design.

(2) Compare the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the comparison on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft^3. Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft^3 and repeat comparison process from B.3.2.1 (2).

(5) Furnish one of the QC gauges passing the allowable comparison tolerances to perform density testing on the project.

B.3.2.2 Comparison Monitoring

(1) After performing the gauge comparison specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform comparison monitoring of the QC, QV, and all back-up gauges at the project reference site.

(2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 of its reference value established in B.3.2.2(2).

(4) Maintain the reference site test data for each gauge at an agreed location.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

(1) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.

(2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.

(3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

(4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full sublot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate sublot for that partial quantity.

(5) Randomly select test locations for each sublot as specified in CMM 8.15 before paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests before opening the roadway to traffic.

(6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

Table 1

Lane Width	No. of Tests	Transverse Location
5 ft or less	1	Random
Greater than 5 ft to 9 ft	2	Random within 2 equal widths
Greater than 9 ft	3	Random within 3 equal widths

B.4.1.2 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

(1) A lot represents a combination of the total daily tonnage for each layer and target density.

(2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one sublot for each layer.

(3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.

(4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per sublot and perform the number of random tests as specified in Table 2.

Table 2

Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage	Minimum Number of Tests Required
25 to 100 tons	1
101 to 250 tons	3
251 to 500 tons	5
501 to 750 tons	7

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

(1) Calculate the average sublot densities using the individual test results in each sublot.

(2) If all sublot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.

(3) If any sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot is subject to disincentive pay as specified in standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

(1) Determine the pavement density as specified in B.4.2.1.

B.4.2.2.2 Width of 5 Feet or Less

(1) If all sublot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.

(2) If a sublot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

B.4.2.3 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

(1) Determine the pavement density as specified in B.4.2.1.

B.4.2.4 Documentation

(1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

(1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.

(2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted sublot. Testing in a previously accepted sublot will not be used to recalculate a new lot density.

(3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full sublot width within the traffic lanes or shoulders.

(4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.

(5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the sublot and lot densities.

(6) If 2 consecutive sublot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

(1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one sublot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.

(2) The QV tester will test each selected sublot using the same testing requirements and frequencies as the QC tester.

(3) If the verification sublot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.

(4) If the verification sublot average is more than one percent below the specified target density, compare the QC and QV sublot averages. If the QV sublot average is within 1.0 lb/ft^3 of the QC sublot average, use the QC tests for acceptance.

(5) If the first QV/QC sublot average comparison shows a difference of more than 1.0 lb/ft^3 each tester will perform an additional set of tests within that sublot. Combine the additional tests with the original set of tests to compute a new sublot average for each tester. If the new QV and QC sublot averages compare to within 1.0 lb/ft^3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft^3 after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

(1) Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program.

B.6 Dispute Resolution

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.

(2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV sublot density test results or retesting of the sublot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

(4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

(1) The department will not accept QMP HMA Pavement Nuclear Density if a non-compared gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to the 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.

E.2 Disincentive for HMA Pavement Density

(1) The department will administer density disincentives as specified in standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

(1) The department will administer density incentives as specified in standard spec 460.5.2.3.

stp-460-020 (20161130)

49. Aggregate for Concrete Pavements.

This special provision describes specialized material requirements for aggregates used in Concrete Pavements. Conform to standard spec 415 and 501, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

Replace standard spec 501.2.5.4.1 with the following:

501.2.5.4.1 General

(1) The department will sample and test aggregates as follows:

LA Wear (100 and 500 revolutions)……..…….AASHTO T 96

Sodium Sulfate Soundness (R-4, 5 cycles)…….AASHTO T 104

Freeze-Thaw Soundness……AASHTO T 103

Lightweight Pieces[1]…….AASHTO T 113

[1] Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces by dividing the weight of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

(2) Contact the engineer a minimum of 4 weeks prior to paving to collect a sample of the aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

(3) The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete pavement.

(4) Use clean, hard, durable crushed gravel or crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.

(5) Use virgin aggregates only.

Replace the first paragraph of 501.2.5.4.2 with the following:

(1) The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Lightweight Pieces	5.0

Replace the first paragraph of 501.2.5.4.3 with the following:

(1) The percent wear shall not exceed 40, the weighted soundness loss shall not exceed 9 percent, and the weighted freeze-thaw average loss shall not exceed 12 percent.

(10/26/2016)

50. Optimized Aggregate Gradation and Concrete Mixtures.

A Description

This special provision describes optimized aggregate gradation, optional optimized mixture designs, and associated additional requirements for class 1 concrete used in concrete pavements. Conform to standard specification part 7 and as follows:

Optimized Aggregate Gradation

A Job Mix Formula (JMF) contains all of the following:

1. Proportions for each aggregate fraction conforming to Table 1.
2. Individual gradations for each aggregate fraction.

3. Composite gradation of the combined aggregates including working ranges on each sieve according to Table 2.
4. Submit the target JMF and aggregate production gradation test results to the engineer for review 10 business days before initial concrete placement.

TABLE 1 TARANTULA CURVE GRADATION BAND

SIEVE SIZES	PERCENT RETAINED
2 in.	0
1 1/2 in.	≤5
1 in.	<16
3/4 in.	<20
1/2 in.	4-20
3/8 in.	4-20
No. 4	4-20
No. 8[1]	<12
No. 16[1]	<12
No. 30[1] [2]	4-20
No. 50[2]	4-20
No. 100[2]	≤10
No. 200[2]	≤2.3

*[1]*Minimum of 15% retained on the sum of the #8, #16, and #30 sieves.

*[2]*Conform to 24-34% retained of fine sand on the #30-200 sieves.

TABLE 2 JMF WORKING RANGE

SIEVE SIZES	WORKING RANGE*[1]* (PERCENT)
2 in.	±5
1 1/2 in.	±5
1 in.	±5
3/4 in.	±5
1/2 in.	±5
3/8 in.	±5
No. 4	±5
No. 8	±4
No. 16	±4
No. 30	±4
No. 50	±3
No. 100	±2
No. 200	≤ 2.3

*[1]*Working range limits of composite gradation based on moving average of 4 tests.

Test each component aggregate once per 1,500 cubic yards during concrete production. Take samples by one of the following sampling methods:

1. At the belt leading to the weigh hopper.
2. Working face of the stock piles at the concrete plant if approved by the engineer.

The department will take independent QV samples using the same sampling method the contractor uses for QC sampling. QV samples may be taken by the contractor's QC personnel if witnessed by the department's QV personnel. The department will split each QV sample and retain half for all dispute resolutions. 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.

If, during concrete production, the moving average of four for any sieve fall outside the allowable JMF working range do the following:

1. Notify the engineer of the test results within 1 business day from the time of sampling;
2. Make immediate adjustments to the JMF, within the limits specified in Table 3;
3. Review JMF adjustments with the engineer. Both the contractor and engineer will sign the adjusted JMF if the adjustments comply with Table 3.

4. If the moving average of four falls outside the adjusted allowable working range, stop production and provide a new mix design including JMF to the engineer.

TABLE 3 ALLOWABLE JMF ADJUSTMENTS

SIEVE SIZES	ALLOWABLE ADJUSTMENT (PERCENT)
≥ No. 4	±5
No. 8 – No. 30	±4
No. 50	±3
No. 100	±2

Dispute Resolution

The department will resolve disputes as specified in standard spec 106.3.4.3.5 using QV split samples.

Sublot and Lot Size

A sublot consists of up to 1,500 cubic yards. A lot consists of two sublots.

Optimized Concrete Mixtures

The contractor may use a reduced cementitious content for concrete pavement placed if the contractor does the following:

1. Use an optimized aggregate gradation as defined in this special provision.
2. Conform to the additional testing requirements for flexural strength as specified in the contract special provisions.
3. Submit aggregate gradation result records no more than 2 years old when developing the mix design.
4. Determine the volume of voids in the optimized aggregates using ASTM C29.
5. Download and follow the instructions tab of the Optimized Gradation and Mix Design Spreadsheet located at:

   https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
6. Design an appropriate paste content based upon the Performance-based PCC Mix Design Guide located at:

   https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
7. Provide a minimum Vpaste/Vvoids of 1.25. (Paste/Void ratio equals the volume of paste divided by the volume of voids.).
8. Evaluate workability of trial batches by following section 6.8 of AASHTO Draft Performance Engineered Concrete Pavement Mixtures Specifications located at:

   https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
9. Submit trial batch workability results when submitting the mix design.
10. Submit the CP Tech center computer spreadsheet concrete mix design to the engineer for review at least 3 business days before producing concrete.
11. Provide a minimum cement content of 520 pounds per cubic yard, except if using type I, IL, or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.
12. The contractor may use class C fly ash or grade 100 or 120 slag as a partial replacement for cement. For binary mixes use up to 30% fly ash or slag. For ternary mixes use up to 30% fly ash plus slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.
13. See CMM 8-70.2.2.3 for additional guidance.

B (Vacant)

C (Vacant)

D (Vacant)

E (Vacant)

(2/14/2018)

51. Ice Hot Weather Concreting, Item 501.1000.S.

Conform to standard spec 501.3.8.2 except the department will pay for ice at the contract unit price under the Ice Hot Weather Concreting bid item. This special provision only applies to work done under the following contract bid items:

Concrete Masonry Bridges
Concrete Masonry Bridges HES
Concrete Masonry Culverts
Concrete Masonry Culverts HES
High Performance Concrete (HPC) Masonry Structures
Concrete Masonry Retaining Walls
Concrete Masonry Retaining Walls HES
Concrete Masonry Endwalls
Concrete Masonry Overlay Decks

Replace standard spec 501.4 and 501.5 with the following:

501.4 Measurement

(1) The department will measure Ice Hot Weather Concreting by the pound, acceptably completed, measured only if the conditions prescribed in standard spec 501.3.8.2 are met.

501.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
501.1000.S	Ice Hot Weather Concreting	LB

(2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.

(3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; for preparing, transporting, storing, protecting and curing concrete; and for contractor requirements related to testing specified in standard spec 501.3.10.

(4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

stp-501-010 (20151210)

52. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description

This special provision describes furnishing and placing stainless steel reinforcing bars and associated stainless steel bar couplers.

Conform to standard spec 505 as modified in this special provision.

B Materials

B.1 General

Furnish stainless steel reinforcing bars conforming to ASTM A955 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. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

B.3 Control of Material

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.
2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.
3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.
4. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.
3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1 inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1 inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least 1/8 inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

C.2 Splices

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap slices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound, acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment for Bar Steel Reinforcement HS Stainless Structures is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

stp-505-005 (20141107)

53. High Performance Dowel Bars Special.

A Description

This special provision describes the optional use of high performance dowel bars for use in mainline pavement. The contractor can use dowels as defined in 505.2.6.2 or as described below.

B Materials

Replace standard spec 505.2.6.2(1) with the following when using high performance dowel bars:

- Bars with a fully bonded longitudinal glass fiber reinforced polymer (GFRP) corrosion shield conforming to the GFRP materials requirements of AASHTO LRFD Bridge Design Guide Specifications for GFRP Reinforced Concrete Bridge Decks and Traffic Railings.
- Ensure that the bars have a smooth finished GFRP surface coating 0.125 inches thick or thicker over ASTM A615 grade 60 or higher carbon steel.
- Ensure that the bars are straight, round, smooth, and free from burrs or other deformations detrimental to the free movement of the bar in the concrete.

54. Concrete Staining B-53-338, Item 517.1010.S.001; Concrete Staining B-53-339, Item 517.1010.S.002; Concrete Staining B-53-371, Item 517.1010.S.003; Concrete Staining B-53-341, Item 517.1010.S.004; Concrete Staining B-53-342, Item 517.1010.S.005; Concrete Staining B-53-343, Item 517.1010.S.006; Concrete Staining B-53-346, Item 517.1010.S.007; Concrete Staining B-53-347, Item 517.1010.S.008; Concrete Staining R-53-42, Item 517.1010.S.009; Concrete Staining R-53-43, Item 517.1010.S.010; Concrete Staining R-53-44, Item 517.1010.S.011; Concrete Staining R-53-45, Item 517.1010.S.012; Concrete Staining R-53-47, Item 517.1010.S.013; Concrete Staining R-53-48, Item 517.1010.S.014; Concrete Staining R-53-49, Item 517.1010.S.015; Concrete Staining R-53-53, Item 517.1010.S.016; Concrete Staining R-53-54, Item 517.1010.S.017; Concrete Staining R-53-55, Item 517.1010.S.018; Concrete Staining R-53-58, Item 517.1010.S.019; Concrete Staining R-53-59, Item 517.1010.S.020; Concrete Staining S-53-78, Item 517.1010.S.021; Concrete Staining S-53-79, Item 517.1010.S.022; Concrete Staining S-53-80, Item 517.1010.S.023; Concrete Staining S-53-81, Item 517.1010.S.024; Concrete Staining S-53-82, Item 517.1010.S.025; Concrete Staining S-53-83, Item 517.1010.S.026; Concrete Staining S-53-84, Item 517.1010.S.027; Concrete Staining S-53-85, Item 517.1010.S.028; Concrete Staining Northbound Gateway Sign, Item 517.1010.S.029; Concrete Staining Southbound Gateway Sign, Item 517.1010.S.030.

A Description

This special provision describes providing a two coat concrete stain on the exposed concrete surfaces of structures as the plans show.

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 according 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 Surfacer, 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 Concrete Stain Solid Color Water Based by Sherwin-Williams

C Construction

C.1 General

Furnish, prepare, apply, cure, and store all materials according 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, before staining.

C.2 Preparation of Concrete Surfaces

Provide a sack rubbed finish as specified in 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 according to the manufacturer's recommendations.

Apply the concrete stain when the temperature of the concrete surface is 45º 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

Before 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, before 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 according to the plan.

D Measurement

The department will not measure Concrete Staining (Structure). The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.001	Concrete Staining B-53-338	SF
517.1010.S.002	Concrete Staining B-53-339	SF
517.1010.S.003	Concrete Staining B-53-371	SF
517.1010.S.004	Concrete Staining B-53-341	SF
517.1010.S.005	Concrete Staining B-53-342	SF
517.1010.S.006	Concrete Staining B-53-343	SF
517.1010.S.007	Concrete Staining B-53-346	SF
517.1010.S.008	Concrete Staining B-53-347	SF
517.1010.S.009	Concrete Staining R-53-42	SF
517.1010.S.010	Concrete Staining R-53-43	SF
517.1010.S.011	Concrete Staining R-53-44	SF
517.1010.S.012	Concrete Staining R-53-45	SF
517.1010.S.013	Concrete Staining R-53-47	SF
517.1010.S.014	Concrete Staining R-53-48	SF
517.1010.S.015	Concrete Staining R-53-49	SF
517.1010.S.016	Concrete Staining R-53-53	SF
517.1010.S.017	Concrete Staining R-53-54	SF
517.1010.S.018	Concrete Staining R-53-55	SF
517.1010.S.019	Concrete Staining R-53-58	SF
517.1010.S.020	Concrete Staining R-53-59	SF
517.1010.S.021	Concrete Staining S-53-78	SF
517.1010.S.022	Concrete Staining S-53-79	SF
517.1010.S.023	Concrete Staining S-53-80	SF
517.1010.S.024	Concrete Staining S-53-81	SF
517.1010.S.025	Concrete Staining S-53-82	SF
517.1010.S.026	Concrete Staining S-53-83	SF
517.1010.S.027	Concrete Staining S-53-84	SF
517.1010.S.028	Concrete Staining S-53-85	SF
517.1010.S.029	Concrete Staining Northbound Gateway Sign	SF
517.1010.S.030	Concrete Staining Southbound Gateway Sign	SF

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

55. Architectural Surface Treatment B-53-338, Item 517.1050.S.001;Architectural Surface Treatment B-53-339, Item 517.1050.S.002;Architectural Surface Treatment B-53-371, Item 517.1050.S.003; Architectural Surface Treatment B-53-341, Item 517.1050.S.004; Architectural Surface Treatment B-53-342, Item 517.1050.S.005; Architectural Surface Treatment B-53-343, Item 517.1050.S.006; Architectural Surface Treatment B-53-346, Item 517.1050.S.007; Architectural Surface Treatment B-53-347, Item 517.1050.S.008; Architectural Surface Treatment R-53-42, Item 517.1050.S.009; Architectural Surface Treatment R-53-43, Item 517.1050.S.010; Architectural Surface Treatment R-53-44, Item 517.1050.S.011; Architectural Surface Treatment R-53-45, Item 517.1050.S.012; Architectural Surface Treatment R-53-47, Item 517.1050.S.013; Architectural Surface Treatment R-53-48, Item 517.1050.S.014; Architectural Surface Treatment R-53-49, Item 517.1050.S.015; Architectural Surface Treatment R-53-53, Item 517.1050.S.016; Architectural Surface Treatment R-53-54, Item 517.1050.S.017; Architectural Surface Treatment R-53-55, Item 517.1050.S.018; Architectural Surface Treatment R-53-58, Item 517.1050.S.019; Architectural Surface Treatment R-53-59, Item 517.1050.S.020; Architectural Surface Treatment Northbound Gateway Sign, Item 517.1050.S.021; Architectural Surface Treatment Southbound Gateway Sign, Item 517.1050.S.022.

A Description

This special provision describes providing a concrete masonry architectural surface treatment on the exposed concrete surfaces of structures as the plan details show.

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.

The ashlar formliner pattern is based on Minnesota Ashlar #1214.

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 before 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 according 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 not measure Architectural Surface Treatment (Structure). The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
517.1050.S.001	Architectural Surface Treatment B-53-338	SF
517.1050.S.002	Architectural Surface Treatment B-53-339	SF
517.1050.S.003	Architectural Surface Treatment B-53-371	SF
517.1050.S.004	Architectural Surface Treatment B-53-341	SF
517.1050.S.005	Architectural Surface Treatment B-53-342	SF
517.1050.S.006	Architectural Surface Treatment B-53-343	SF
517.1050.S.007	Architectural Surface Treatment B-53-346	SF
517.1050.S.008	Architectural Surface Treatment B-53-347	SF
517.1050.S.009	Architectural Surface Treatment R-53-42	SF
517.1050.S.010	Architectural Surface Treatment R-53-43	SF
517.1050.S.011	Architectural Surface Treatment R-53-44	SF
517.1050.S.012	Architectural Surface Treatment R-53-45	SF
517.1050.S.013	Architectural Surface Treatment R-53-47	SF
517.1050.S.014	Architectural Surface Treatment R-53-48	SF
517.1050.S.015	Architectural Surface Treatment R-53-49	SF
517.1050.S.016	Architectural Surface Treatment R-53-53	SF
517.1050.S.017	Architectural Surface Treatment R-53-54	SF
517.1050.S.018	Architectural Surface Treatment R-53-55	SF
517.1050.S.019	Architectural Surface Treatment R-53-58	SF
517.1050.S.020	Architectural Surface Treatment R-53-59	SF
517.1050.S.021	Architectural Surface Treatment Northbound Gateway Sign	SF
517.1050.S.022	Architectural Surface Treatment Southbound Gateway Sign	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.

56. Surface Drain Pipe Corrugated Metal Slotted, 18-Inch, Item 521.2005.S.001.

A Description

This special provision describes furnishing and installing slotted corrugated metal pipe surface drain as the plans show.

Conform to standard spec 521 as modified in this special provision.

B Materials

Furnish backfill material that is grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501.2 as modified in standard spec 716. Provide QMP for class III ancillary concrete as specified in standard spec 716.

C Construction

Before backfilling, plug the upper end of the slotted drain as the plans show or as approved by the engineer.

Before backfill operations adjacent to the slotted area of the slotted corrugated metal pipe surface drain pipe, install timber blocks in the slots according to the plan details. Remove any material entering the pipe at no expense to the department.

Keep the timber blocks in place until final clean up operations are completed; at which time, remove the timber blocks.

Exercise care to avoid damage to the slotted corrugated metal pipe surface drain pipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drain pipe at no expense to the department.

D Measurement

The department will measure Surface Drain Pipe Corrugated Metal Slotted (size), completed according to the contract and accepted, in place by the linear foot.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
521.2005.S	Surface Drain Pipe Corrugated Metal Slotted 18-Inch	LF

Payment is full compensation for furnishing all materials; hauling and placing the pipe, including bands; making connections to existing inlets; furnishing concrete, end plug or cap; and for cleaning out and restoring site of work.

stp-521-005 (20150630)

57. Noise Barriers Single-Sided Sound Absorptive N-53-17, Item 531.0200.S.001; Noise Barriers Single-Sided Sound Absorptive N-53-18, Item 531.0200.S.002; Noise Barriers Single-Sided Sound Absorptive N-53-19, Item 531.0200.S.003; Noise Barriers Single-Sided Sound Absorptive N-53-21, Item 531.0200.S.004.

A Description

This special provision describes designing, fabricating, transporting, and erecting composite concrete single-sided sound absorptive noise barriers as the plans show and conforming to department-approved installation specifications.

B Noise Wall System

B.1 System Pre-Qualification and Selection

The noise wall system supplied must be pre-qualified by the department. The department maintains a list of pre-qualified systems which can be viewed online at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx

Systems eligible for use on this project shall be pre-qualified before the award of this contract.

Provide the name of the selected system, and the intended fabricator to the engineer within 25 days after award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and before beginning design of the noise barrier. A representative of the fabricator of the noise barrier components shall attend this meeting.

B.2 Design

B.2.1 Structural and Foundation Design

The structural and foundation design of the noise barrier system shall conform to the current edition of "AASHTO LRFD Bridge Design Specifications" published by the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW, Suite 225, Washington, DC 20001, with the following exceptions:

Design the noise barrier to withstand wind pressure, applied perpendicular to the barrier, in each direction, of 28.5 pounds per square foot for ground mounted barriers, and 37.5 pounds per square foot for structure mounted barriers.

Design drilled shaft foundations using either the Broms Method or p-y Method. Ignore the top 1-foot of supporting soil in the design of ground-mounted barrier foundations.

In addition to wind loads, design the bottom noise barrier panel to support the dead load (weight) of the panels directly above it and its own dead load. Assume this dead load to be distributed uniformly across the bottom panel acting as a simple beam supported at the posts.

Bottom noise barrier panels shall have a minimum amount of perimeter reinforcement of a #4 bar which shall be continuous around the comers. Reinforcing steel in the concrete core of noise barrier panels shall have a minimum clear cover of 1 inch. Clear cover does not include sound absorptive material. Design the reinforced concrete core to resist the loads without considering any composite action from other material in the panel.

Provide a neoprene bearing pad or equivalent material of ¼ inch minimum thickness between the foundation and the bottom panels. The allowable bearing stress shall not exceed 900 psi. Precast concrete pedestals placed between the foundation and bottom panels shall be reinforced if over l'-0" high. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80.

B.2.2 Fire Hose Access Openings

Design fire hose access openings, at locations shown on the plans, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity. Detail drawings shall show the additional reinforcement and method for attaching the Fire Hydrant Location Signs to the barrier panel.

B.2.3 Barrier Profile

Unless the plans show or engineer approves otherwise, design the top of the noise barrier to be horizontal and at or above the acoustic elevation line the plans show. The bottom elevation of the noise barrier shall be as the plans show. Changes in elevation shall be accomplished by stepping sections at posts. Steps shall not exceed 3-feet in height. All joints shall be horizontal or vertical and shall be aligned with the adjacent panels.

B.2.4 Panel Orientation

Design the panels to prevent entrapment and ponding of water. Avoid inadvertently providing areas for perching, nesting of birds or collecting of dirt and debris in the design of the noise barrier system.

B.2.5 Sound Transmission Loss (TL)

Design the noise barrier panel material to achieve a transmission loss equal to or greater than 20 decibels in all test frequency bands, as referenced in ASTM E90.

B.2.6 Noise Reduction Coefficient (NRC)

Design the noise barrier system so that the highway sides of the noise barrier panels have a minimum NRC of 0.80, as referenced in ASTM C423.

B.2.7 Design Coordination

Design the noise barrier post spacing so as not to interfere with the existing utility and drainage facilities.

Design the noise barrier post spacing so as not to interfere with proposed utility and drainage facilities the plans show. This includes proposed roadway lighting and ITS facilities.

For noise barriers mounted behind or near proposed retaining walls, coordinate and design the noise barrier post spacing so as to not interfere with embedded portion of the proposed retaining walls, including MSE wall soil reinforcement and tieback anchors on soldier pile and timber lagging retaining walls.

For noise barriers mounted on proposed bridges and retaining walls, coordinate and design the noise barrier post spacing to coincide with noise barrier post and embedded noise barrier anchor assembly spacing the bridge and retaining wall plans show. Coordinate any required changes to the noise barrier post spacing and embedded noise barrier anchor assembly locations the bridge and retaining wall plans show, if required for the design of the noise barrier.

B.2.8 Weep Hole Openings

Design panels such that weep hole openings in noise wall to allow water to drain can be field installed per C.3 at locations the plans show.

B.2.9 Maintenance Doors

Design maintenance doors and door portals in noise walls, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity per B.2.1.

B.3 Materials

Required material certifications and testing are the responsibility of the contractor. All certifications and test reports shall carry the name and address of the fabrication facility where the specific material was produced.

B.3.1 Concrete Masonry

Provide grade A, A-2, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716 for concrete posts and the core component of composite concrete sound absorbing panels. Provide QMP for class II ancillary concrete as specified in standard spec 716.

B.3.2 Materials Testing – General

All test reports shall carry the name and address of the laboratory where testing was performed, and the name of the person in responsible charge of the specific tests for which data is presented. Materials tested shall be representative of materials manufactured for this specific contract. Panels tested or from which samples will be taken will be selected and appropriately marked by the engineer either at the manufacturer's plant or from panels delivered to the project at the engineer's option.

Testing as detailed below is required for each lot of material not to exceed 100,000 SF of noise barrier produced. Conduct testing on panels within the first 30,000 SF of production of each lot not exceeding 100,000 SF. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage. The first set of tests conducted for projects that do not exceed 100,000 SF shall be within the first third of the total square footage of the project.

Provide the shipping record of the samples to the laboratory within five days of sampling. Begin testing as soon as practicable after sampling.

Test all materials as fabricated, including any specified finishing.

B.3.2.1 Noise Reduction Coefficient (NRC)

Test noise barrier panels according to ASTM C423, and placed according to ASTM E795, mounting type A, to determine the noise reduction coefficient (NRC) of the material. Submit to the engineer an independent laboratory test report that shows that the noise barrier panels achieve an NRC as specified in B.2.6 for the highway side of the barrier.

B.3.2.2 Long-term Durability

Test all sound absorbing composite concrete and composite concrete components for long-term durability according to ASTM C672 and the following modifications and/or requirements:

B.3.2.2.1 Test Specimens

Three specimens of a full cross section of the composite panel at least 144 square inches in face area will be selected at random from the provided composite panel as defined in B.3. Sample specimens shall be representative of the manufacturer's continuous production operation, as selected and marked by the engineer. Specimens shall be 2D-symmetric and shaped according to the testing laboratory's accommodations.

Prepare the surfaces of the sample specimens for testing as follows. Brush the surfaces of the sample to remove any loose particles. Prior to testing, submerge the test specimens be submerged in water for a period of 24 hours before testing. Immediately following this, cover the specimens with the sodium chloride solution as stated below.

B.3.2.2.2 Test Procedure

Place samples in a 5 sided water tight container, fully submerged in a solution of sodium chloride (concentration 3% by mass). Maintain ¼-inch of sodium chloride solution above the top surface of the fully submerged specimen within the container.

Subject the submerged specimens to continuous freeze-thaw cycles as follows:

After each five cycles, remove the salt solution and particles of deteriorated concrete from the slab and collect in a watertight container. The operation is best accomplished by tilting the slab in a funnel approximately 20-inches in diameter and washing the surface of the slab with a 3% sodium chloride solution. Continue this washing until all loose particles are removed from the sample. Strain the solution through a filter and dry the residue at 221 degrees Fahrenheit to a constant mass condition. Cumulatively weigh the residue after each five cycles. The dry residue is defined as the loss of mass. Calculate the loss of mass to the nearest 0.01 pounds per square foot, not including the exposed surface of any core material on the cast or cut edges, or any of the conventional concrete face of single-sided panels. Visually rate the surfaces according to 10.1.5 of ASTM C672 including any delamination of the sound absorbing material from the concrete core for composite concrete materials. After each washing of each sample, re-establish the initial submerged condition with a new solution of 3% sodium chloride prior to continuing with freeze-thaw cycling.

Continue the test until 30 freeze-thaw cycles have been completed.

During the test position and support each specimen to allow free circulation of the test solution under, around, and over test pieces. Support the bottom of the specimens on blocks in a manner to facilitate movement of moisture through and around the test specimens.

B.3.2.2.3 Test Report

Submit to the engineer an independent testing laboratory test report which shows that all solid and composite concrete products meet or exceed the following criteria:

1. After 30 freeze-thaw cycles the test specimens shall not exhibit excessive deterioration in the form of cracks, spalls, aggregate disintegration, delamination or other objectionable features.
2. Compliance with the test requirements is based upon a loss of mass of not more than 0.2 pounds per square foot from the surface after 30 cycles of freezing and thawing.
3. The report shall include the following:
    - 3.1. Name of manufacturer.
    - 3.2. Location of production.
    - 3.3. Production description.
    - 3.4. Date product sample was cast.
    - 3.5. Date testing began.
    - 3.6. Specimen identification.
    - 3.7. 5x7-inch color photographs of the test specimens before and after the 30 cycles of freeze-thaw test showing both sound absorbing faces and at least one representative side view of a cut (not cast) face, and any defects.
    - 3.8. A graph of the cumulative mass loss of each specimen plotted against the number of freeze-thaw cycles for 5, 10, 15, 20, 25, and 30 freeze-thaw cycles.
    - 3.9. Visual rating according to ASTM C672 Section 10.1.5, including report of any delamination of the sound absorbing material from the concrete core for composite concrete components.

B.3.3 Materials Certification - General

Provide certification of compliance or sample fabrications as noted below. All material certifications shall reference the specific facility manufacturing the material and this contract. Certification is required for each lot of material not to exceed 100,000 SF of noise barrier produced, and shall include dates of fabrication for the lot being certified. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage.

B.3.3.1 Color and Surface Texture

Supply and deliver to the engineer a 3-foot x 5-foot minimum test panel for each panel type with the specified pattern and colors. Obtain the engineer's acceptance of the panel's pattern and color prior to production of the panels required for the contract. The accepted pattern and color test panels shall remain on the project site in a readily accessible location for the duration of the project. The accepted pattern and color sample panels will be the standard for all noise barriers on the project.

The ashlar formliner pattern is based on Minnesota Ashlar #1214.

Manufacture noise barrier posts of the same materials throughout the project. Shop apply coating and coloring of the post and panels.

Unless plans show otherwise, wall pattern shall contain textures with relief features of sufficient depth and quantity to be distinguishable at an observation distance of 500-feet. The colors and textures chosen will be within the following parameters; however, at the discretion of the engineer, a single color and/or a single texture may be selected for either side of the noise barrier.

	FREEWAY SIDE	**RESIDENTIAL SIDE**
Number of colors	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/-5%)
Number of textures	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/- 5%)

The final color of the panels, posts and grout lines shall be as shown on the plans and match the Federal Standard color system list. Coating and coloring of the post and panels shall be shop applied.

Base Color – #30372

Accent Color – #30140

All individual noise barrier panels shall be the same color on both sides, unless otherwise approved by the engineer. Noise barrier posts shall be manufactured of the same materials throughout the project.

The engineer will visually inspect panels for color consistency upon arrival at the project. The panels shall have no substantial variation in color from the accepted sample panel submitted for the project. All panels with substantial color variation will be rejected and shall be removed from the project.

B.3.3.2 Structural Steel

Submit to the engineer certification of compliance, including mill certifications and heat numbers, that structural steel conforms to the properties required on the plans and shop drawings, and is galvanized after fabrication by the hot-dip process according to ASTM A123. Galvanize all steel hardware and threaded fasteners, bolts, nuts, and washers according to ASTM A153.

Shop coat all steel galvanized surfaces exposed to view with a department-approved paint system. Clean galvanizing surfaces to be painted according to SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. Brush Blast clean the surfaces according to SSPC-SP7 to create a slight angular surface profile (1.0 - 1.5 mils suggested) for adhesion. Do not fracture the galvanized finish or remove any dry film thickness during these processes.

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 surface and prepare the surface for the top coat. Apply a top coat matching the finished color specified in B.3.2. Use a pre-approved top coat that is resistant to the effects of the sun, and is suitable for use in a marine environment. Exercise care so as not to damage the painted surfaces during shipment and erection of the noise barriers.

Use one of the qualified paint sources and products given below. An equivalent system may be used with the written approval of the engineer. Supply the engineer with the product data sheets before applying any coating. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, the minimum drying time for shop applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

Producer	Coat	Products	Dry Film Minimum Thickness (mils)	Minimum Time Between Coats (hours)
Sherwin Williams Co. (847) 330-1250	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
Carboline Co. (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
Wasser Corp. (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

B.3.3.3 Sound Transmission Loss (TL)

Submit to the engineer certification of compliance that the sound transmission loss of the panel material, when tested according to ASTM Standard E90, achieves a transmission loss as specified in B.2.5.

B.3.3.4 Accelerated Weathering

Submit to the engineer certification of compliance that all coatings on barrier components, with the exception of structural steel and wood components comply with the following requirements when tested according to ASTM Standard G155, G153, or G152 after 2400 hours of exposure on a cement based test specimens:

1. No checking when rated according to ASTM D660.
2. No cracking when rated according to ASTM D661.
3. No blistering when rated according to ASTM D714.
4. No difference in adhesion between the unexposed control sample and an exposed sample when tested according to ASTM D3359, Method A.

5. No chalking less than #7 rating when rated according to ASTM D4214.
6. No color change greater than 5 NBS units when measured according to ASTM D2244, using illuminant D65 and the 1964 10-degree standard observer.

B.3.3.5 Corrosion Resistance (Salt Fog Exposure)

Submit to the engineer certification of compliance that all coated steel components, with the exception of structural steel, has a coating system that has been tested for corrosion resistance according to ASTM B117 and comply with the following requirements:

1. No checking when rated according to ASTM D660.
2. No blistering when rated according to ASTM D714.
3. No loss of adhesion when tested according to ASTM D3359 with no evidence of corrosion along the edges of the samples or along the score lines, or both, or other defects.

B.4 Project Submittal Requirements

Furnish required submittals according to the following:

B.4.1 Pre-Construction Submittals

A minimum of 14 days before beginning any shop or field work, submit the following documents to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2.

1. Structural and foundation design calculations

   Design calculations shall be on 8 1/2 x 11-inch sheets, neatly bound with a title sheet listing the complete project identification number and sound barrier designation. Structural and foundation calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.
2. Detailed design/shop drawings

   Design/shop drawings shall conform to the contract plans and the requirements of these special provisions. The design/shop drawings shall consist of plan and profile sheets, details, explanatory notes, erection diagrams, aesthetic treatments, and other working plans. All dimensions, sizes of material, material information and other information necessary for the complete fabrication and construction of the noise barrier shall be designated on the appropriate sheets. The design/shop drawings shall be drawn to an appropriate scale on reproducible sheets 11 x 17 -inches including borders. Each sheet shall carry the complete project identification number and noise barrier designation. Design/shop drawings shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.
3. Specifications regarding installation requirements and sequence of construction, including a detailed bill of materials
4. Detailed color plan of the aesthetic treatments and finishes for the entire noise barrier.
5. Shipping, handling, and storage plan identifying methods or practices to limit post production damage

Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.

B.4.2 Pre-Installation Submittals

Supply and deliver to the engineer the sample panel required under Section B.3.3.1 at least 14 calendar days before beginning production and/or installation of job materials. Acceptance of the sample panel will be by the engineer. If the panel is not acceptable, a second panel shall be produced and submitted for acceptance. Sample panel to be representative of quality for precast panel work after acceptance. Deliver test panels to the field office, for comparison purposes during production of project panels.

B.4.3 Payment Submittals

Submit certifications and test data as required under B.3 for all materials, including trade name of the products along with the name and address of the manufacturers.

B.4.4 Submittal Review

The engineer's review and acceptance of the drawings, calculations, and related material, submitted by the contractor, is for compliance with design intent only, and does not relieve the contractor from responsibility in regard to errors or omissions on said submittals.

The final accepted design documents and/or shop drawings will become a part of the contract. Any substitution of materials or dimensions contemplated by the contractor's submitted documents, different from materials or dimensions the plans shown, shall be made only when approved by the engineer, and in such case, additional costs resulting from such substitution shall be borne by the contractor.

Ordering materials before department acceptance of submittals is at the contractor’s risk.

C Construction

C.1 General

Construct the noise barriers at the locations the plans show, according to the contract specifications and design drawings and as the engineer directs. Deliver all sound absorbing composite concrete components to the project site as a finished component. A sound absorbing composite concrete system, which has the sound absorbing material glue-laminated or alternately affixed by a secondary adhesion method on the project site, will not be allowed.

Provide a minimum 10 day notice to the engineer of the date that the fabrication of the noise barrier material will begin.

Inspect all materials delivered to the construction site for proper dimensions, honeycombing, cracks, voids, surface defects, consistency in color and texture, and any other damage or imperfections, before installation.

If any part of the noise barrier material fails to comply with any requirements of the contract specification, the component shall either be corrected, permanently marked as unacceptable and be disposed of by the contractor or accepted at a reduced price. The decision will be made by the engineer and is dependent on the severity of the specification deviation.

Erect noise barriers to avoid conflict with any existing facilities or utilities to remain in place. Any damage caused by construction activities shall be repaired by the contractor at no cost to the department.

C.2.1 Fire Hydrant Location Signs

Attach fire hydrant location signs to the noise barrier at each location the plans show by a method the department's approved drawings show. The fire hydrant location signs will display an address. The contractor shall contact the engineer for the address to display on the signs. The signs shall conform and be of the type specified in the department's sign plate book, plate D9-54.

Compensation for furnishing and placing the fire hydrant location signs shall be included in the contract price for Noise Barriers Single-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.2.2 Maintenance Door Location Signs

Furnish and install maintenance door location signs. These shall be attached to the noise barrier panels and maintenance doors at each location as shown on the plans. The method for attaching the signs to the noise barrier panels and maintenance doors shall be detailed in the shop drawings for approval by the engineer. The signs shall conform and be of the type specified in the department’s sign plate book, plate D9-54.

Compensation for designing, detailing in the shop drawings, furnishing and placing the maintenance door location signs on both the noise barrier panels and maintenance doors shall be included in the contract price for Noise Barriers Single-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.3 Weep Hole Openings

Provide weep hole openings for drainage at the locations and sized as noted on the plan. Install weep holes by drilling through the wall after erection of the noise barrier. Use 6" PVC Schedule 40 pipe sleeve conforming to ASTM D-1785. Epoxy 6" PVC Schedule 40 pipe sleeve into bored weep hole. PVC pipe sleeve shall fit snugly in cored hole through wall. Epoxy PVC pipe sleeve into bored weep hole in noise barrier. Locate and construct weep holes according to the plans and as the engineer directs. Place weep holes at locations the plans show, unless the engineer allows adjusting locations to fit field conditions. The engineer will field verify the height and location of the weep hole for positive drainage.

C.4 Name Plates

Provide name plates conforming to standard spec 506.2.4. Furnish and place one name plate on each noise barrier at the location indicated on the plans. Rigidly attach each plate to the barrier by a means approved by the engineer.

Compensation for furnishing and placing of name plates shall be included in the contract price for Noise Barriers, Single-Sided Sound Absorptive Structure and no additional compensation therefore will be allowed.

C.5 Structure Mounted Noise Barriers

Do not erect noise barriers mounted to bridge or retaining wall structures until after the concrete for bridge decks and parapets or retaining wall moment slabs and parapets have attained their specified 28-day strength.

For noise barriers mounted to moment slabs and parapets on top of MSE retaining walls, erection of the noise barrier is limited to two-thirds the height of the noise barrier acoustical line the plans show before placement of earth fill or pavement over the top of the moment slab as the plans show. Erection of the noise barrier in excess of two-thirds its height to the full height of the noise barrier acoustical line the plans show may not occur until after the earth fill or pavement structure over the top of the moment slab the plans show is complete.

C.6 Construction Tolerances

Install the posts and panels comprising the noise barrier plumb within ½-inch in 15-feet. Locate the posts to the line and grades the plans show to within +/- ¾-inch. Align horizontal joints of adjacent panels to a vertical tolerance of ¼-inch. Where vertical adjustments are required for alignment, use a mortar base or steel shims. Galvanize and prime coat steel shims according to B.3.3.2.

D Measurement

The department will measure Noise Barriers Single-Sided Sound Absorptive by the square foot acceptably completed, as the area the original plans show plus engineer-approved modifications to the plan quantity caused by plan corrections or revisions.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
531.0200.S.001	Noise Barriers Single-Sided Sound Absorptive N-53-17	SF
531.0200.S.002	Noise Barriers Single-Sided Sound Absorptive N-53-18	SF
531.0200.S.003	Noise Barriers Single-Sided Sound Absorptive N-53-19	SF
531.0200.S.004	Noise Barriers Single-Sided Sound Absorptive N-53-21	SF

Payment is full compensation for providing noise barrier including: coloring and aesthetic treatment on panels, preparing the design drawings and calculations, furnishing and delivering sample and test panels, materials testing, furnishing materials test reports and certifications, excavation, preparing the site, constructing foundations, erecting posts and panels, signing and hardware and disposing of waste materials.

stp-531-005 (20180628)

58. Storm Sewer.

This work shall be according to to the pertinent provisions of standard specification 608, as shown on the plans, and as hereinafter provided.

At locations where storm sewer pipes or endwalls extend through a retaining wall place geotextile fabric according to standard spec 645 and rubberized membrane according to standard spec 516 around the storm sewer pipe or endwall at the retaining wall.

59. Adjusting Manhole Covers.

This special provision describes adjusting manhole covers conforming to standard spec 611 as modified in this special provision.

Adjust manhole covers located in pavement areas in two separate operations. Initially, remove designated manhole covers along with sufficient pavement to permit installation of temporary cover plate over the opening. Fill the excavated area with asphaltic pavement mixture, which shall remain in place until contract milling and paving operations permit setting the manhole frames to grade. During the second phase, remove the asphaltic pavement mixture surrounding the manhole plus the temporary cover plate, and set the manhole cover to final grade. The department will measure and pay for the items of asphaltic pavement mixture, temporary cover plate, milling, and paving separately.

Revise standard spec 611.3.7 by deleting the last paragraph.

Set the manhole frames so that they comply with the surface requirements of standard spec 450.3.2.9. At the completion of the paving, a 6-foot straightedge shall be placed over the centerline of each manhole frame parallel to the direction of traffic. A measurement shall be made at each side of the frame. The two measurements shall be averaged. If this average is greater than 5/8 inches, reset the manhole frame to the correct plane and elevation. If this average is 5/8 inches or less but greater than 3/8 inches, the manhole frame shall be allowed to remain in place but shall be paid for at 50 percent of the contract unit price.

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.

stp-611-005 (20030820)

60. Cover Plates Temporary, Item 611.8120.S.

A Description

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

B Materials

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

C (Vacant)

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTIO	UNIT
611.8120.S	Cover Plates Temporary	EACH

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

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

stp-611-006 (20151210)

61. Pipe Grates 36-Inch, Item 611.9800.S.001; Pipe Grates 42-Inch, Item 611.9800.S.002; Pipe Grates 48-Inch, Item 611.9800.S.003; Pipe Grates 54-Inch, Item 611.9800.S.004; Pipe Grates 34x53-Inch, Item 611.9800.S.005.

A Description

This special provision describes providing pipe grates on the ends of pipes.

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 according to the requirements of AASHTO M36M.

D Measurement

The department will measure Pipe Grates (size) 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.001	Pipe Grates 36-inch	EACH
611.9800.S.002	Pipe Grates 42-inch	EACH
611.9800.S.003	Pipe Grates 48-inch	EACH
611.9800.S.004	Pipe Grates 54-inch	EACH
611.9800.S.005	Pipe Grates 34x53-inch	EACH

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

stp-611-010 (20030820)

62. Insulation Board Polystyrene, 2-inch, Item 612.0902.S.001.

A Description

This special provision describes furnishing and placing polystyrene insulation board as the plans show.

B Materials

Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230 as modified in this special provision.

Delete flammability requirement.

B.1 Certification

Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the engineer.

C (Vacant)

D Measurement

The department will measure Insulation Board Polystyrene (size) by area in square yards of work, 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
612.0902.S.001	Insulation Board Polystyrene 2-Inch	SY

Payment is full compensation for all excavation; and for furnishing and placing the insulation board.

stp-612-005 (20030820)

63. Gates Pipe Single Leaf, 12 Ft., Item 616.0360.S.001.

A Description

This special provision describes providing single leaf pipe gates as the plan details show.

B Materials

Furnish black, round steel pipe conforming to ASTM A53, type F.

Furnish hot-rolled round bar and miscellaneous steel plates conforming to ASTM A36.

Furnish grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501.2 as modified in standard spec 716. Provide QMP for class II ancillary concrete as specified in standard spec 716.

Furnish zinc-coated bolts, nuts, and washers.

B.1 Paint

Provide one of the following paint systems:

- Rust-Oleum 9300 System Heavy-Duty Epoxy Finish with a 9334 Zinc Rich Primer.
- Sherwin Williams Hi-Solids Catalyzed Epoxy Finish with a Zinc Rich Primer.
- Devoe Tru-Glaze-3 Epoxy Gloss Coating with a Zinc Rich Primer.

The engineer will determine the paint color.

C Construction

After fabrication of the entire pipe gate, including hinge and locking posts, abrasive blast clean the gate to the requirements of Grade SSPC-SP-10 as specified by the Steel Structures Painting Council.

Give all metal components two coats of epoxy paint over a zinc rich primer conforming to standard spec 517.

Shop apply the primer and first coat. Field apply second finish coat after erection of gate.

D Measurement

The department will measure Gates Pipe Single Leaf, (length) as each gate, 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
616.0360.S.001	Gates Pipe Single Leaf 12 FT	EACH

Payment is full compensation for providing gates; for concrete; and for painting.

stp-616-045 (20150630)

64. Fence Safety, Item 616.0700.S.

A Description

This special provision describes providing plastic fence at locations the plans show.

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
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.

stp-616-030 (20160607)

65. Landmark Reference Monuments.

Supplement standard spec 621 with the following:

Contact Rock County Surveyor, Brad Heuer at (608) 757-5658, 30 days prior to the start of construction to coordinate perpetuation of section corners that will be disturbed during construction.

66. Stone or Rock Ditch Checks, Item 628.7515.S.

A Description

This special provision describes furnishing and installing stone or rock ditch checks as the plans show or as the engineer directs.

B Materials

Provide materials conforming to size requirements for size no. 2 coarse aggregate for concrete masonry or riprap according to the standard spec 501.2.5.4.5. Railroad ballast or breaker run stone conforming to the following applicable gradations may also be used:

Railroad Ballast

Sieve Size	Percent by Weight Passing
2 Inch	100
1 Inch	20 – 55
3/8 Inch	0 -5

Breaker Run Stone

Sieve Size	Percent by Weight Passing
5 Inch	100
1½ Inch	0 – 50
3/8 Inch	0 - 5

Incorporate stone or rock in the ditch checks that is hard, sound, and durable, and meets the approval of the engineer.

C Construction

Place stone or rock ditch checks immediately after shaping of the ditches or slopes is completed. Place stone or rock ditch checks at right angles to the direction of flow and construct to the dimensions and according to the details the plans show.

Remove sediment from behind the stone or rock ditch checks when it has accumulated to one half of the original height of the dam.

D Measurement

The department will measure Stone or Rock Ditch Checks in volume by the cubic yard of material incorporated in the work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
628.7515.S	Stone or Rock Ditch Checks	CY

Payment is full compensation for furnishing, producing, crushing, loading, hauling, placing, and shaping and maintaining Stone or Rock Ditch Check.

The quantity of sediment removed shall be multiplied by a factor of ten and paid for as Common Excavation.

stp-628-050 (20170615)

67. Furnishing and Planting Plant Materials.

The work covered by this special provision is according to standard spec 632 except as hereinafter specified.

Supplement standard spec 632.2.2.1 with the following:

All plant material must conform to American Standard for Nursery Stock, ANSI Z60.1-2014 for type, shape, and height.

Provide plants 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, updated January 24, 2012.

Modify paragraph (1) of standard spec 632.2.2.2 as follows:

Collected grown stock is not allowed.

Supplement standard spec 632.2.2.4 as follows:

Requests for substitution(s) of root category (i.e. bare root vs. balled and burlapped) must be documented in writing to the Corridor Vegetation Inspector. Approval of a root category substitution is required and the department may execute a contract change order to adjust contract unit prices for the substituted materials.

Requests for substitution(s) of plant species must include written documentation from at least three nurseries stating that the plant species in unavailable. Include the nursery’s contact information with the documentation.

Supplement standard spec 632.2.2.8 with the following:

Plants with undersized, insufficient, unbalanced, damaged, or improperly stored, transported or handled root systems will be rejected.

To prevent stem-girdling roots over time, plants with encircling roots that cannot be properly repositioned during installation will be rejected.

Supplement standard spec 632.2.2.9.1 with the following:

Plants must be protected from excessive vibrations. Plants shall not be thrown or bounced off a truck or loader to the ground. Plants shall not be dragged, lifted, or pulled by the trunk or foliage parts in a manner that will loosen the roots in the ball.

Ensure there is adequate drainage in the planting holes and bed areas. If drainage is insufficient, perform a percolation test by filling a 16-inch-deep planting hole with water and measure the time it takes for the water to drain from the hole. Adequate drainage will be equal to or greater than ½ inch per hour. In the case of inadequate drainage, request approval from the Corridor Vegetation Inspector to either relocate or remove the planting location(s).

Supplement standard spec 632.2.2.9.3 with the following:

Roots cannot extend more than 4” beyond the burlap.

Numerous larger diameter root stubs must not be present.

Roots must fill the soil ball.

Plant must be no more than 10% off center in the soil ball, unless the ball is oversized allowing a centered plant within the minimum radius spread for the root type as specified in the plans.

Replace standard spec 632.2.3.4 with the following:

The planting mixture shall conform to the requirements in the article “Planting Mixture” contained in these special provisions.

Remove standard spec 632.2.4.1.

Supplement standard spec 632.2.6 with the following:

Mulch shall be shredded hardwood bark mulch or hardwood chip mulch. Specific locations are specified further in the article. Provide fibrous wood mulch not containing manufactured boards or chemically treated wood, including but not limited to wafer board, particle board, and chromated copper arsenate (CCA) or penta-treated wood. Ensure that the material does not contain bark of black walnut trees.

Provide shredded hardwood bark mulch that is finely shredded, uniformly dark brown in color, free of large wood chunks, and substantially free of mold, dirt, sawdust, and foreign material and is the product of a mechanical chipper, hammermill, or tub grinder.

Provide air dried shredded hardwood bark mulch, passing a 4-inch screen, with no more than 20 percent by mass passing a 0.10-inch sieve. Ensure that unattached bark or greenleaf composition, either singly or combined, do not exceed 20 percent each by mass. The maximum length of individual pieces cannot exceed 4 inches. Ensure that no portion of the material is in an advanced state of decomposition.

Replace standard spec 632.2.9(1) with the following:

Rodent protection consists of wire mesh material embedded and staked into the ground as shown in the construction detail in the plans.

Supplement standard spec 632.3.1 with the following:

Prior to proceeding with plant installation work and to the satisfaction of the Corridor Vegetation Inspector, schedule and perform a “Competency Test” demonstrating acceptable plant installation methods for each root category applicable to this project. The test will include handling plants, digging holes and beds, installing plants, initial watering, installing applicable protection materials, and mulching.

Supplement standard spec 632.3.2 with the following:

Store any trees or shrubs delivered before use in a way that protects them from damage by heat, moisture, rodents, or other causes. The storage locations and requirements are described elsewhere in these special provisions. Discard and replace, at no cost to the department, any previously accepted plant material that becomes damaged. Plant material should not be stored on site more than seven days.

Replace paragraph (2) of standard spec 632.3.4 with the following:

Excavate planting holes as shown in the plan details and to minimum widths shown in the plant data charts. The planting hole diameter for trees shall be at least three times the diameter of the root ball or 8-foot minimum. The soil shall be loosened beyond the edge of the planting hole. Excavation may be done by shovel, backhoe, or stump grinder, but a soil auger may not be used.

For balled and burlapped (B&B) plants, determine the depth of plant hole by measuring the distance from the point at which the trunk flare begins to the bottom of the ball and subtracting 2 inches.

Excavated planting holes that will be left open when work is not in progress or pose an immediate and considerable hazard to pedestrians or vehicles shall be adequately barricaded with appropriate warning devices.

Delete standard spec 632.3.4 (4).

Supplement standard spec 632.3.7 with the following:

For B&B plants, loosen the burlap to the top of the ball and locate the trunk flare. Remove excess soil, without damaging the plant, if the trunk flare is buried less than 4 inches in the root ball soil. If trunk flare is buried in the root ball soil more than 4 inches it will be rejected. Keep the root ball intact until it is secure in the hole.

Test the soil ball by pulling on the stem or crown of the ball. If the stem or crown moves and the ball does not, the ball is broken and will be rejected.

The soil pad on which the B&B soil ball or root ball will be placed shall be of undisturbed soil. Carefully set the plant in the hole so that the trunk flare is 2 inches above the existing grade. Once the tree or shrub is set and backfilled, any rope, string, or twine should be removed from around the trunk. If the root ball appears in danger of completely collapsing, only remove twine and burlap from the top one-third of the ball. Remove the wire basket. If the root ball appears in danger of completely collapsing, the top 8-16 inches of the wire basket will be removed once the ball is stable in the planting hole. Cut wire basket and do not leave any protruding points of wire which could cause injury. Do not remove the wire basket by pulling on the root ball. Vertically slice through any remaining burlap at 6 inch intervals around the ball in a manner that does not damage the roots.

Verify within 60 days that all ropes, strings, burlap, and other wrappings have decomposed so as not to restrict growth of trunk and roots. If this has not occurred, remove the restricting materials within one week of notification by the Corridor Vegetation Inspector.

Prior to planting balled and potted (B&P) or container grown (CG) plants, remove the plastic, metal, or biodegradable container. If roots are crowded or coiled on the bottom, sides, or surface of the root ball, gently separate from the edges or surface.

Replace paragraph (3) of standard spec 632.3.7 with the following:

Backfill the plant hole(s) as follows:

Use backfill material, Topsoil Special, for trees located along STH 26; along Deerfield Drive; the Midland Court Park & Ride lot, USH 14, and at the gateway signs as shown in the plans. Use backfill material consisting of salvaged topsoil from the plant hole excavation for all other trees.

Use backfill material, Planting Mixture, for planting beds located along STH 26, the Midland Court Park & Ride lot, USH 14, and at the gateway signs as shown in the plans. Use backfill material, Topsoil Special, for all other planting beds.

Carefully tamp the soil lightly to avoid leaving air pockets but not so firmly as to drive out all the fine air spaces needed for a well-aerated soil. Tamp each soil layer in a way that avoids injuring the roots or ball or disturbing the plant position. To avoid packing the soil too firmly, water the soil halfway through the backfill process and allow it to drain. After the water is absorbed, resume backfilling and water again thoroughly.

To complete backfilling, smooth the surface soil with a rake and check to ensure that the trunk flare is completely exposed and that the top of the rootball is not covered with soil. Build a “saucer” at the outer edge of the hole to retain water and allow it to soak down to the roots.

Any remaining burlap must be completely covered with soil. If exposed to the air, it will dry out, potentially wicking moisture from the ball and making it difficult to re-wet. If the root collar is deep in the ball and the ball planted high as a result, soil will have to be mounded above grade to assure the burlap is covered.

Supplement paragraph (5) of standard spec 632.3.7 with the following:

After planting, water the planting area deeply. Newly planted trees and shrubs must receive adequate water during the establishment period.

Supplement standard spec 632.3.9 as follows:

Use shredded hardwood bark mulch for:

- Trees located along STH 26; along Deerfield Drive; the Midland Court Park & Ride lot, USH 14, and at the gateway signs as shown in the plans.
- For planting beds located along STH 26, the Midland Court Park & Ride lot, USH 14, and at the gateway signs as shown in the plans.

Use hardwood chip mulch for all other locations.

Shovel cut an edge around the perimeter of planting beds at the locations shown on the plans. Manually, or machine cut, edge to a minimum width and depth as shown in the plan detail. Fill shovel cut edge with the appropriate mulch and finish approximately 2 inches below adjacent lawn grades. Tamp mulch lightly and add additional mulch, as necessary, so that the final level of the mulch, after compacting, is level with adjacent lawn grades.

Place the shredded hardwood bark mulch or hardwood chip mulch immediately after planting.

Replace standard spec 632.3.13(1) with the following:

Place rodent protection around deciduous, pine, and larch trees according to the detail shown in the plans.

Supplement standard spec 632.3.14 with the following:

If the root ball is not stable in the soil, at the direction of the Corridor Vegetation Inspector, brace the trunk as low as possible to keep the root ball stable while allowing the trunk to sway slightly. Only polyethylene straps are allowed for bracing. Bracing will be removed after one growing season, unless a longer period is directed by the Corridor Vegetation Inspector.

Delete standard spec 632.3.15

Supplement standard spec 632.5.1 (2) with the following:

Payment for Topsoil Special and Planting Mixture will be paid for separately under their associated bid items.

Delete standard spec 632.5.3.

68. Plant Delivery and Temporary Storage.

Supplement standard spec 632.3.2 with the following:

Determine location(s) for delivery of the trees, shrubs, and seeds, and submit the location(s) to the Corridor Vegetation Inspector for approval. The delivery location(s) may be on the public right-of-way or private property. The delivery location(s) must not directly access to/from I-39/90. The location(s) shall be secure, shaded, have water available for tree and shrub irrigation, and provide easy access for the department. The plant material must be planted within seven days of when the material is delivered to the plant material delivery location(s).

Each delivery location(s) must be approved by the Corridor Vegetation Inspector through the ECIP or an ECIP amendment.

69. Landscape Planting Surveillance and Care Cycles.

The work covered by this special provision is according to standard spec 632 except as hereinafter specified.

Replace paragraph (1) of standard spec 632.3.18.1.1 with the following:

A plant establishment period of one year shall follow the completion of planting.

Delete standard spec 632.3.18.1.2.

Supplement standard spec 632.3.19.1 with the following:

Perform a complete and thorough spring clean-out of all planting beds that contain trees, shrubs, perennials, ornamental grasses and/or bulbs. Perform spring clean-out during the first care cycle or as soon as weather and growing season conditions permit. Do not perform spring clean-out until the ground is no longer saturated from the spring thaw; walking on saturated soil will result in compaction. Ensure that Spring clean-out includes removal of past-season herbaceous material that was left standing over winter, cutting back ornamental grasses to within 3-inches of the mulched surface, removing any material damaged over the winter by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, weeding, and any and all other clean-out and maintenance operations as directed by the Corridor Vegetation Inspector.

Perform a complete and thorough fall clean-out of all planting beds that contain trees, shrubs, perennials, ornamental grasses and/or bulbs. Perform fall clean-out during the last care cycle. Do not perform fall clean-out if the soil is saturated from rain event; wait until the soil moisture levels have gone down before performing the final bed clean-out. Ensure that fall clean-out includes coordination with the Corridor Vegetation Inspector and the City of Janesville Forestry Department to determine which herbaceous perennial and ornamental grass material to leave standing through the winter and which to cut back to the ground, removing any material damaged during the growing season by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, weeding, and any and all other clean-out and maintenance operations as directed by the Corridor Vegetation Inspector.

Top dress all mulched areas with 1”-2” of specified mulch material immediately prior to the end of the surveillance and care period.

Mow a 5-ft. band of turf around the shrub bed limits. Mow to a 4-inch height when the turf height exceeds 9-inches. This requirement applies to standard turf grass only. Native prairie mowing specifications are described elsewhere.

Replace paragraph (1) of standard spec 632.3.19.1 with the following:

Properly care for trees, shrubs, and perennials from the time of planting and during the period of establishment until final acceptance of the work.

At least 14 days prior to planting, submit a care cycle schedule to the Corridor Vegetation Inspector. Use a department provided template. Provide schedule updates to the Corridor Vegetation Inspector as necessary.

Replace item 3. of paragraph (10) of standard spec 632.3.19.1 with the following:

Following the completion of each care cycle, fill out the department provided worksheet “Tree and Shrub Scouting Report”. Complete one worksheet per site, sign the worksheet, and submit to the Corridor Vegetation Inspector.

Supplement standard spec 632.3.19.2 with the following:

The department will assess daily damages in the amount of $1,000.

Replace paragraph (2) of standard spec 632.3.20 with the following:

Remove and replace plants, as ordered by the Corridor Vegetation Inspector, that are not conforming to the above requirements, with satisfactory plants. Use the same materials and methods for replacement planting as specified for the original planting.

Replace paragraph (2) of standard spec 632.4 with the following:

The department will measure Landscape Planting Surveillance and Care Cycles as each individual care cycle acceptably completed. Care Cycles for each of the planting phase years, described elsewhere in these provisions, have been included. All tree, shrub, and perennial planting sites, within an individual phase, are included in the work for each care cycle.

70. Blue Specific Service Signs.

Add the following to standard spec 638.3.4:

Do not remove or move blue specific service signs or their associated posts. Specific service signs are signs with logos that identify commercial entities providing gas, food, lodging, camping, or attractions. A separate contractor, Interstate Logos - Wisconsin, is responsible for these signs. Contact Interstate Logos - Wisconsin at (844) 496-9163 a minimum of 14 calendar days in advance to coordinate removing, moving, or re-installation of these signs.

The contractor is responsible for damage done to these signs due to contractor operations.

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71. Removing Signs.

Add the following to standard spec 638.3.4:

Separate and stockpile all folding stop signs, street name signs and any signs with a City of Janesville identifier for pick up by the City of Janesville. Contact Bill Brandl, City of Janesville (608) 247-9514 a minimum of 3 calendar days in advance to coordinate stockpile location and pick up.

72. Traffic Signal TIming.

Traffic signals at 12 intersections as shown on the plans shall be fully operational, as shown in the “Sequence of Operations” diagrams. The permanent and temporary traffic signals shall be operated according to traffic signal timing parameters provided by WisDOT Southwest Region prior to construction.

All work required to install signal timing, perform test operations and make updates shall be considered incidental to the bid item “Electrical Systems Integrator" for the traffic signals listed. The number of deployments listed below should be considered approximate and may vary depending upon traffic conditions and construction staging. This work shall include performing signal timing updates as directed by WisDOT throughout the duration of the project, and will be considered incidental to the “Integrator” bid item regardless of the total number of signal timing deployments.

The following list includes anticipated traffic signal timing implementations throughout the project:

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STH 26 & Morse Street – Temporary Signals (3 timing deployments)

- Stage 4 Phase 2 through Stage 4 Phase 4/4A/4B
- Stage 4 Phase 4C
- Stage 5 Phase 1

STH 26 & Southbound Ramps – Temporary Signals (4 timing deployments)

- Stage 2 Phase 1
- Stage 4 Phase 2B
- Stage 4 Phase 4
- Stage 5 Phase 1

STH 26 & Northbound Ramps – Temporary Signals (9 timing deployments)

- Stage 2 Phase 1
- Stage 2 Phase 3
- Stage 3
- Stage 4 Phase 2A
- Stage 4 Phase 2B
- Stage 4 Phase 3
- Stage 4 Phase 4
- Stage 4 Phase 4A
- Stage 5 Phase 1

STH 26 & Kettering Street – Temporary Signals (3 timing deployments)

- Stage 4 Phase 2
- Stage 4 Phase 2A
- Stage 4 Phase 4B

Deerfield Drive & Ryan Road – Permanent Signals (1 timing deployment)

- Permanent signal timing

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USH 14 & Pontiac Drive – Temporary Signals (4 timing deployments)

- Stage 1 Phase 1
- Stage 2 Phase 1
- Stage 5 Phase 1
- Stage 5 Phase 3 to Post Stage

USH 14 & Southbound Ramps – Temporary Signals (5 timing deployments)

- Stage 1 Phase 1
- Stage 2 Phase 1
- Stage 3 Phase 1
- Stage 4 Phase 1
- Stage 5 Phase 3

USH 14 & Northbound Ramps – Temporary Signals (4 timing deployments)

- Stage 1 Phase 1
- Stage 2 Phase 1
- Stage 3 Phase 1
- Stage 5 Phase 1

USH 14 & Deerfield Drive – Temporary Signals (2 timing deployments)

- Stage 1 Phase 1
- Stage 2 Phase 1

Morse Street & Ryan Road (1 timing deployment)

- Temporary signal during detour

Lexington Drive & Holiday Drive (1 timing deployment)

- Temporary signal during detour

Pontiac Drive & Pontiac Place (4 timing deployments)

- Temporary signal during detour, operated in coordination with temporary signal at USH 14 & Pontiac Drive

73. Field Facilities.

Replace standard spec 642.2.1 (4) with the following:

Provide and maintain suitable interior sanitary facilities conforming to State and local health requirements, in clean and good working condition, provide a weekly cleaning service, and stock with sanitary supplies for the duration of the contract.

Supplement standard spec 642.2.2.1 (4) with the following:

Provide and maintain a plan-paper photocopier with scanner with the following characteristics:

- Uses toner, not ink.
- Has auto-feed capability.
- Can output a PDF of a copied or scanned document.

Replenish paper, toner cartridges, and other supplies before fully expended.

Add standard spec 642.2.2.1 (6) as follows:

Provide a field office having an adjacent hard surface parking facility with a minimum capacity of 16 passenger vehicles.

Replace standard spec 642.2.2.4 with the following:

Under bid item Field Office Type D, furnish a facility with a minimum interior space of 1,500 square feet including a meeting room that is at least 20 feet by 20 feet; furnish indoor sanitary facilities that are housed within, or directly adjacent to, the filed office; clean, maintain, and supply the field office and sanitary facilitates weekly; and equip with the following:

- Ten suitable office desks with drawers and locks.
- Ten ergonomically correct office chairs in working condition according to standard spec 642.2.2.1 (5).
- Two four-drawer file cabinets.
- Two four-shelf bookcases.
- Four 2.5 x 5 foot (minimum) tables.
- Four 4 x 8 foot (minimum) tables for the meeting room.
- Twenty, or more folding chairs.

Add standard spec 642.3 (7) as follows:

(7) Locate the field office to be within 3 miles of the IH 39-STH 26 interchange.

Add standard spec 642.5 (4) as follows:

(4) Payment of the field office is full compensation for providing a weekly cleaning service for the field office and sanitary facilities, for providing sanitary supplies as necessary, for replenishing paper, toner cartridges, and other supplies before fully expended, and for maintaining the photocopier/scanner in working order at all times.

(9/10/2018)

74. Nighttime Work Lighting-Stationary.

A Description

This special provision describes furnishing portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days before the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.
3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

C.3 Light Level and Uniformity

Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

C.4 Glare Control

Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

C.5 Continuous Operation

Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment

Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.

stp-643-010 (20100709)

75. Traffic Control Signs.

This special provision describes mounting height requirements and sign support requirements. Conform to standard spec 643, as modified in this special provision.

Supplement standard spec 643.2.9.1(5) as follows:

Provide associated advanced signing, including portable traffic control signing, according to the MUTCD. Mount all portable traffic control sign at a minimum height of 5 feet, measured from the bottom of the sign, above the edge of pavement.

(7/6/2014)

76. Traffic Control

Supplement standard spec 643.3.1 with the following:

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

Provide the State Patrol, Rock County Sheriff's Departments, and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Do not permit equipment or vehicles to directly cross the live traffic lanes of the highway. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic. Equip all contractor's vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing amber signal light). Operate the flashing amber beam only when merging or exiting live traffic lanes or when parked or operating on shoulders.

All construction vehicles and equipment operating on or near roadways open or closed to traffic, shall be equipped with at least one flashing amber light. The flashing amber light shall be activated when vehicles or equipment are operated on the roadway, parked in close proximity to the roadway, and when entering or exiting live lanes of traffic. The flashing amber light shall be mounted approximately midway between the transverse extremities of the vehicles or machinery and at the highest practical point that provides visibility from all directions. The light shall be of the flashing strobe or revolving type meeting the following minimum requirements:

Flashing Strobe Type Light	Revolving Type Light
360-degree lens	360-degree lens
60 to 90 flashes per minute	45 to 90 flashes per minute
5-inch minimum height	4-5/8 inch minimum height
3-3/4 inch minimum diameter	3-3/4 inch minimum diameter

The light shall be equipped with bulbs of 50 candlepower minimum. Mounting shall be either magnetic or permanent. No compensation for furnishing and installing the flashing amber light to contractor owned construction equipment or vehicles will be provided for in the contract.

The contractor shall not disturb, remove or obliterate any traffic control signs, advisory signs, shoulder delineators, sand barrel array or guardrail in place along the traveled roadways not shown on the plans without the approval of the engineer.

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

Cover existing signs which conflict with traffic control as directed by the engineer. The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

Replace standard spec 643.3.1(6) with the following:

Provide 24-hour a day availability of equipment, forces and materials to promptly restore barricades, lights, or other traffic control devices that are damaged or disturbed. Restore any barricade, light, or other traffic control so that the device is not out of service for more than two hours.

Supplement standard spec 643.3.6(3) with the following:

Place one flashing arrow board in advance of each lane closure taper and place one flashing arrow board within each lane closure taper at locations directed by the engineer.

77. Temporary Pedestrian Surface Asphalt, Item 644.1410.S; Temporary Pedestrian Surface Plywood, Item 644.1420.S;Temporary Pedestrian Surface Plate, Item 644.1430.S.

A Description

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

B Materials

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

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

C Construction

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

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

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1410.S	Temporary Pedestrian Surface Asphalt	SF
644.1420.S	Temporary Pedestrian Surface Plywood	SF
644.1430.S	Temporary Pedestrian Surface Plate	SF

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

stp-644-010 (20150630)

78. Temporary Curb Ramp, Item 644.1601.S.

A Description

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

B Materials

Furnish materials as follows:

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

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

C Construction

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

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

D Measurement

The department will measure temporary curb ramps by each individual ramp, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1601.S	Temporary Curb Ramp	EACH

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

stp-644-020 (20150630)

79. Temporary Pedestrian Safety Fence, Item 644.1616.S.

A Description

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

B Materials

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

Furnish select 2x4 dimensional lumber.

Furnish fence fabric meeting the following requirements.

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

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

C Construction

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

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

D Measurement

The department will measure Temporary Pedestrian Safety Fence by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1616.S	Temporary Pedestrian Safety Fence	LF

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

stp-644-025 (20150630)

80. General Requirements for Electrical Work.

Amend standard spec 651.2, Materials, by adding the following paragraphs:

(7) The approved products list is located at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/prods/qpl.aspx

Replace standard spec 651.3.2 (1) with the following:

Perform all electrical work using a journey worker electrician. Before performing electrical work, provide the documentation specified in standard spec 651.3.2(3) to the engineer proving that the electrician's performing the work have attained status as journey worker.

81. Install Conduit Into Existing Item, Item 652.0700.S.

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Use the type, size and number of conduits as shown in the plans and as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the standard spec.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for entering conduits at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

The department will measure Install Conduit Into Existing System by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	EACH

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.

stp-652-070 (20100709)

82. Electrical Service Meter Breaker Pedestal USH 14, Item 656.0200.003; Electrical Service Meter Breaker Pedestal STH 26, Item 656.0200.004.

Replace standard spec 656.2.3, Meter Breaker Pedestal Service, paragraph (1) with the following:

(1) 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. Furnish a pedestal capable of providing service to WisDOT lighting systems in conjunction with ITS as shown in the plans. When the meter breaker pedestal is energized, install an approved meter seal at all access points on the meter trough. Meter shall be time of use type.

Replace standard spec 656.3.2, Service Lateral, paragraph (1) with the following:

(1) The local utility shall furnish and install a 200 A, 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.

Ensure that electrical service is installed and energized according to lighting system, and ITS system activation deadlines.

Provide for an underground conduit connection to lighting cabinets. Do not pierce or otherwise compromise the integrity of the cabinet enclosure.

83. Electrical Service Meter Breaker Pedestal (Ryan Rd & Deerfield Dr), Item 656.0200.007.

Replace standard spec 656.2.3, Meter Breaker Pedestal Service, paragraph (1) with the following:

Obtain a City of Janesville Electrical Permit from the Housing, Building, and Neighborhood Services Department prior to performing any work. Pay all permit fees.

Ensure that electrical service is installed and energized a minimum of one week prior to the system activation deadline.

84. Intelligent Transportation Systems - General Requirements.

A Description

A.1 General

This special provision describes providing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as the plans show.

Unusual aspects of this project include:

1. The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment before installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16 inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. **Electrical Power:**
    - 4.1. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
    - 4.2. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
    - 4.3. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
5. **Temperature and Humidity:**
    - 5.1. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
    - 5.2. **Equipment in Controlled Environments:** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage, and clamp the voltage between each wire and ground at 50 volts.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for labeling methods before use.

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Statewide Traffic Operations Center or in communication hubs, which are not contained within a single cabinet, shall have at least 10 feet of slack.

C.4 System Operations

If the contractor’s operations unexpectedly interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

C.5 Surge Protection

Arrange the equipment and cabinet wiring to minimize the distance between each conductor’s point of entry and its protector. Locate the protector as far as possible from electronic equipment. Ensure that all wiring between the surge protectors and the point of entry is free from sharp bends.

D Measurement

The department will not measure the work performed under this special provision.

E Payment

The department will pay for the work performed under this special provision under the contract ITS bid items.

stp-670-010 (20100709)

85. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality

Add the following to standard spec 106.2:

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items

1005-10-77

(2) IP Camera
(1) Wood Pole Camera Bracket
(13) Microwave Detector
(1) Pole-Mounted Cabinet
(10) Ethernet Switch
(20) SFS
(9,817 LF) Fiber Optic Cable 12 Count
(67,396 LF) Fiber Optic Cable 72 Count
(2) Terminal Server
(8) Termination Panel 12 Count
(3) Termination Panel 72 Count
(1) Communication Hut Building

1005-10-87/5569-00-71

(3,530 LF) Fiber Optic Cable – 24 Count

Contact Dean Beekman, State Traffic Operations Center (STOC), at (414) 227-2154 to obtain a copy of the manufacturer list and contact names for department-furnished equipment.

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Large department-furnished equipment, such as camera poles will be delivered by the supplier to a contractor-controlled site within Rock County. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract's Notice to Proceed.

Transportation of the equipment between the electric shop and the field or interim locations are the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials

Add the following to standard spec 106.3:

Design/Shop Drawings

Before the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.

stp-670-005 (20150630)

86. Poles Type 6-Steel, Item 657.0326.

Replace standard spec 657.2.2.1.1, General, paragraph (3) with the following:

(1) Furnish type 6 steel poles conforming to standard spec 657 and with dimensions for acceptable installation of the ramp gate hardware as shown on the detail. Ensure a contiguous pole by eliminating the hand hole near base of pole, thus allowing uninhibited mounting of the gate pivot assembly.

87. Ramp Closure Gates 26-FT, Item 662.1026.S; Ramp Closure Gates 28-FT, Item 662.1028.S; Ramp Closure Gates 30-FT, Item 662.1030.S; Ramp Closure Gates 32-FT, Item 662.1032.S; Ramp Closure Gates 40-FT, Item 662.1040.S.

A Description

This special provision describes providing freeway on-ramp closure gates on Type 6 steel luminaire poles. This special provision also describes furnishing and delivering spare gate arms.

B Materials

B.1 General

Provide five user manuals and a listing of vendors and contact information for each manufactured component.

The engineer may allow alternates equal to specified manufactured components. The engineer may require plan detail modifications to accommodate alternates. The engineer may accept alternate arms or mounting adaptors only if the contractor can demonstrate that the department can easily remove and replace the arms.

B.2 Components

Furnish type 6 steel poles designed to carry twin 15-foot luminaire arms and conforming to standard spec 657 and with dimensions for acceptable installation of the ramp gate hardware as shown on the detail. Ensure a contiguous pole by eliminating the hand hole near base of pole, thus allowing uninhibited mounting of the gate pivot assembly.

Furnish galvanized steel nuts and bolts conforming to ASTM A307 except where designated as high strength (HS), conform to ASTM F3125. For the ramp closure gate locking mechanism, furnish a 3/4-inch handle nut.

Furnish grade A36 steel for the gate supports, gate pivot assembly, and associated hardware galvanized after fabrication by either a mechanical or hot-dip process. Grind welded connections, rough edges, and burrs smooth before galvanizing to ensure a finished appearance. Ensure that the galvanized coating conforms to ASTM A 153.

Provide aluminum/fiberglass gate arms of the nominal length the bid item indicates and conforming to plan dimensions. Cover gate arms on two sides with alternating red and white shop-applied type H reflective from the department's approved products list. Also provide a shear pin base that is the manufacturer’s "permanent pivot" style. Obtain components from:

B&B Roadway
15191 Hwy 243
Russellville, AL 35654
Tel: (888) 560-2060
Gate arm: model MU605

Furnish a worm gear winch with a single line vertical lift capacity of 2000 lbs. Ensure that the winch has hardened steel gears, a handgrip, permanently lubricated bearings, a reinforced arc-welded reel assembly, and mounting plate. Ensure that the winch can be mounted to the winch mount plate shown on the construction details and the handgrip can be operated without conflict with the pole or ramp gate assembly. Furnish a 2-inch outdoor rated, rot resistant polyester strap for the connection between the worm gear winch and the gate arm pivot assembly.

C Construction

C.1 Ramp Closure Gates

Under the Ramp Closure Gates bid items, provide ramp closure gate at the locations the plans show. Apply marine grade anti seize compound compound to all bolt threads and to the interface between the aluminum base and steel pole. The engineer may direct adjustment of the gate arm assembly to ensure the correct vertical and angular orientation of the completed closure gate.

Install structure identification plaques in the location the plan details show.

Contact WisDOT to confirm identification plaque numbering, refer to the “Street Lighting, Traffic Signal and Diversion Trigger Systems – General” article for contact information.

C.2 Furnishing Gate Arms

Under the Ramp Closure Gate Arms Stockpile bid items, furnish and deliver spare arms of the nominal length the bid item indicates conforming to B.2. Deliver spare gate arms to an address provided by WisDOT.

Contact WisDOT to confirm expectations for material delivery locations, refer to the “Street Lighting, Traffic Signal and Diversion Trigger Systems – General” article for contact information.

D Measurement

The department will measure the Ramp Closure Gates bid items as each individual installation acceptably completed.

The department will measure the Ramp Closure Gate Arms Stockpile bid items as each individual unit, acceptably furnished and delivered.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
662.1026.S	Ramp Closure Gates 26-FT	EACH
662.1028.S	Ramp Closure Gates 28-FT	EACH
662.1030.S	Ramp Closure Gates 30-FT	EACH
662.1032.S	Ramp Closure Gates 32-FT	EACH
662.1040.S	Ramp Closure Gates 40-FT	EACH

Payment for the Ramp Closure Gate bid items is full compensation for providing ramp closure gates including support poles; for gate arm assemblies including guides, collars, and gate arms; and for structure identification plaques. Payment for the Ramp Closure Gate Arms Stockpile is full compensation for furnishing and delivering spare ramp closure gate arms.

stp-662-005 (20180628)

88. Intelligent Transportation Systems – Conduit.

Add the following to standard spec 671.2:

671.2.4 Locate Wire

Provide a No. 14 AWG stranded copper wire for future locate purposes through each conduit run. Connect the locate wire by using a wire nut at each pull box, manhole, or other access point.

Alternatively, use a single wire through the access points. All material furnished under this item shall meet the requirements of standard spec 655.

stp-671-005 (20150630)

89. Install Pole Mounted Cabinet, Item 673.0225.S.

A Description

This special provision describes installing aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

Some of the pole mounted cabinets will be salvaged from the project. These cabinets include a fiber optic termination panel, attached plaques sequence identification, and attached electrical service breaker disconnect box.

Use stainless steel bolts, nuts, and washers unless otherwise specified.

All conductors, terminals, and parts that could be hazardous to maintenance personnel shall be protected with suitable insulating material.

The cabinet will be equipped with service panels. Two panels shall be provided and mounted on the cabinet sidewalls. The left side panel shall be designated as "Input/Communications," and the right side panel shall be designated as the "Service Panel."

The service panel will be equipped with a four-outlet handi-box. Wire the handi-box to the series portion of the filtering surge protector.

Use metallic conduit, fittings, and adapters required from the underground conduit transition point to the cabinet as part of this item. A typical installation requires on 2-inch conduit. Use metallic conduit conforming to standard spec 652.

C Construction

Fasten the field cabinet securely onto a pole. Provide bolted stainless-steel connections with lock washers, locking nuts, or other engineer-approved means to prevent the connection nuts from backing off. Isolate dissimilar materials from one another using stainless steel fittings. Make all power connections to the cabinet as specified in standard spec 656.

Drill and tap the cabinet, as necessary, to mount the terminal blocks and other attachments to the service panel, to provide an entrance on the back of the cabinet for cable from the pole mounted intelligent transportation systems equipment, and to mount the service panel to the cabinet as shown in the details. Remove all sharp edges or burrs, or both, caused by the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

Install metallic conduit on the exterior of the pole (for entrance to the cabinet from the ground) as the plans show, and according to the applicable requirements of standard spec 652.

D Measurement

The department will measure Install Pole Mounted Cabinet as each individual 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
673.0225.S	Install Pole Mounted Cabinet	EACH

Payment is full compensation for installing the pole mounted cabinet, including the fiber termination panel, attached plaques sequence identification, and attached electrical service breaker disconnect box; for making all connections and conduit/wire entrances; and for all testing.

90. Removing 50-Foot Camera Pole, Item 677.9051.S.

A Description

This special provision describes removing existing camera poles.

B (Vacant)

C Construction

Disconnect all cables, wiring and equipment that are mounted on or in the poles, and remove the pole from the concrete footing.

D Measurement

The department will measure Removing (Height) Camera Pole by each unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9051.S	Removing 50-Foot Camera Pole	EACH

Payment is full compensation for removing and disposing of the existing camera pole; disconnecting any necessary wiring; removing the equipment mounted on the poles; disposing of cabling and wiring; and transportation.

91. Concrete Pavement Flexural Strength.

This special provision describes accepting concrete pavement based on flexural strength. Conform to standard spec part 7 as modified in this special provision.

Add the following to standard spec table 701-2:

TEST	TEST STANDARD
Flexural Strength of Concrete	AASHTO T97

Replace standard spec 710.5.5 with the following:

710.5.5 Strength

(1) Cast all 6-inch by 12-inch cylinders or 6-inch x 6-inch x 21-inch beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and sublot or location on the project it represents.

(2) Provide facilities for initial curing. For up to 48 hours after casting, maintain the temperature adjacent to the specimens in the range of 60 to 80 F and prevent moisture loss. Between 24 and 48 hours after casting, transport the specimens to a department-qualified laboratory for standard curing until testing at 28 days.

(3) Determine the 28-day strength of each specimen in psi. Test each specimen to failure. Use a testing machine that automatically records the date, time, rate of loading, and maximum load of each specimen. Provide a printout of this information for each specimen tested.

Replace standard spec 715.2.1(2) *with the following:*

(2) The contractor need not provide separate laboratory mix designs for high early strength concrete nor provide routine 28-day strength tests during placement for high early strength concrete.

Replace standard spec 715.2.3.1(1) *with the following:*

(1) Use at least 5 pairs of beams to demonstrate the flexural strength of a mix design. Use either laboratory strength data for new mixes or field strength data for established mixes. Demonstrate that the 28-day flexural strength of the proposed mix will equal or exceed the 85 percent within limits criterion specified in standard spec 715.5.2.

Replace standard spec 715.3.1.1(1) *with the following:*

(1) Provide slump, air content, concrete temperature, and strength test results as specified in 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each sublot. Cast 3 specimens for strength evaluation.

Replace standard spec 715.3.1.3(1) *with the following:*

(1) The department will perform verification testing for air content, slump, temperature, and strength at a minimum of 1 verification test per lot.

Replace standard spec 715.3.2.1 with the following:

715.3.2.1 General

(1) The department will make pay adjustments for strength on a lot-by-lot basis using the strength of contractor QC specimens. The department will use flexural strength for pavements and compressive strength for structures. The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer approved non-shrink grout, and provide traffic control during coring.

(2) Randomly select 2 QC strength specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
- If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

Replace standard spec 715.3.2.2.1 with the following:

715.3.2.2.1 Pavement

(1) If a sublot strength is less than 500 psi, the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal. Cut and test cores according to AASHTO T24 as and where the engineer directs. Have an HTCP-certified PCC technician I perform or observe the coring.

(2) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi or greater or the engineer does not require coring.

(3) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

Replace standard spec 715.5.1 with the following:

715.5.1 General

(1) The department will pay incentive for strength under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
715.0415	Incentive Strength Concrete Pavement	DOL
715.0502	Incentive Strength Concrete Structures	DOL

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Pavement and Disincentive Strength Concrete Structures administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to the lower specification limit of 650 psi for pavements and 4000 psi for structures. The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under standard spec 715.3.1.2.1.

(5) Submit strength results to the department electronically using the MRS software. The department will validate contractor data before determining pay adjustments.

(6) All coring and testing costs under standard spec 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

Replace standard spec 715.5.2 with the following:

715.5.2 Pavements

(1) The department will adjust pay for each lot using equation "QMP 6.01" as follows:

Percent within Limits (PWL)	Pay adjustment (dollars per square yard)
≥ 95 to 100	(0.2 x PWL) - 19
≥ 85 to < 95	0
≥ 50 to <85	(2.0/35 x PWL) - 170/35
<50	-2

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 600 psi by $2 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

92. Seismograph, Item 999.1000.S.

A Description

This special provision describes furnishing seismographs and employing trained operators to monitor construction-induced vibrations on buildings/structures, and submittal of all required documentation.

B Material

Use seismographs conforming to Wisconsin Department of Safety and Professional Services (SPS) 307.43, Wisconsin Administrative Code that are continuous data recorders supplied with all the accessories necessary for making vibration and noise monitoring observations.

C Construction

Conduct monitoring procedures conforming to SPS 307.44 and as follows: Take seismograph readings before construction activities to establish an ambient or background index.

During construction, place seismographs to monitor all vibration-inducing construction activities or as the engineer directs. At a minimum utilize one seismograph. If more than one major construction activity per day is taking place, multiple seismographs may be required. Place seismographs on a stable surface within 3 feet of the building/structure nearest to the construction operation. Provide data recorded for each vibration occurrence to the engineer which includes the following:

1. Identification of vibration monitoring instrument used.
2. Description of equipment used by the contractor.
3. Name of qualified observer and interpreter.
4. Distance and direction of recording station from the vibration area.
5. Type of ground at recording station and material on which the instrument is sitting.
6. Peak particle velocity and principal frequency in each component.
7. A dated and signed copy of records of seismograph readings.
8. A comparison of measured seismograph readings to maximum allowable readings identified in SPS 307.43 or as specified in this special provision.

If construction activities generate ground vibration in excess of the peak particle velocity limits as shown in SPS 307.44, stop the construction operation in progress and implement alternate construction methods to produce results within the allowable peak particle velocity limits.

D Measurement

The department will measure Seismograph 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
999.1000.S	Seismograph	LS

Payment is full compensation for furnishing and operating seismographs, operators, and for producing documentation reports.

stp-999-005 (20161130)

93. 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 3519 Ryan Road (Janesville Subaru).

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

B (Vacant)

C Construction

Before any construction activities, thoroughly inspect the building structures for existing defects, including interior and exterior walls. Electronically submit a written report with the inspector's name, date of inspection, descriptions and locations of defects, and digital images. The intent of the written report and digital images is to procure a record of the general physical condition of the building's interior and exterior walls and foundation.

Use a digital camera capable of producing sharp, grain free, high-contrast colored digital images with good shadow details. Label each digital image with the following information:

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

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

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

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

D Measurement

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

E Payment

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

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

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

stp-999-010 (20170615)

94. Subsoiling, Item SPV.0005.500.

A Description

This special provision describes subsoiling designated areas as shown on the plans or as directed by the engineer or Corridor Vegetation Inspector, and as hereinafter provided.

B (Vacant)

C Construction

Subsoil the designated area as shown in the plans or as directed by the Corridor Vegetation Inspector after topsoil or compost placement. Schedule a 500-square-foot test area and demonstrate competence to the Corridor Vegetation Inspector for either swale and slope subsoiling, or basin subsoiling, prior to continuing operations. The Corridor Vegetation Inspector shall identify the test area. Subsoiling shall consist of two operations: deep tilling passes and a surface mixing pass. For the deep tilling passes, loosen subsoiled areas to a depth of 20 inches of the in-place material and placed topsoil or compost. For the surface mixing pass, loosen the subsoiled areas to a depth of 6 to 8 inches. After obtaining approval by the Corridor Vegetation Inspector that the equipment and methods are sufficient to perform the work, complete the subsoiling operation for the designated areas within the project. Work done without the Corridor Vegetation Inspector's approval will be considered as unauthorized work.

For the deep tilling passes, create subsoiling channels with a commercially available, multi-shanked implement attached to track-type equipment. There shall be a minimum of two shanks on the equipment, with each shank located behind a track so that the soil is loosened after it is tracked. Do not pull the shanks through previous channels, but instead create multiple channels. 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. Space the grid channels 24 to 30 inches apart, depending on equipment, site conditions, and the plan. The channel depth shall be to a minimum of 20 inches.

For the surface mixing pass, use a disk chisel or coulter chisel plow with twisted points, or other approved implement, to mix the top 6 to 8 inches of the soil. Do the operation in one pass with a commercially available implement attached to track-type equipment applying no more than 5 psi of pressure or to a tractor with a minimum of two tires per axle. The equipment shall be capable of exerting a penetration force necessary for the site.

If soils are saturated, delay operations until the soil dries to field capacity or less. Field capacity is the amount of water retained in the soil after it has been saturated and allowed to drain freely.

C.1 Swale and Slope Subsoiling

Complete the deep tilling operation in three passes for each ten feet of swale width. On erodible slopes steeper than 6 horizontal to 1 vertical (6:1), work at right angles to the direction of surface drainage whenever practical. Follow this with a surface mixing pass parallel to the direction of ditch flow.

C.2 Basin Subsoiling

Perform the deep tilling operation in two sets of passes to form a two-directional (90°) grid. Follow this with a surface mixing pass completed in either direction.

C.3 Exceptions

Area exceptions to subsoiling include areas within the drip line of any existing trees, over utility installations within 30 inches of the surface, when trenching/drainage lines are installed, where compaction is by design (abutments, footings or inslopes steeper than 4:1), and inaccessible slopes, as approved by the Corridor Vegetation Inspector. In cases where exceptions occur, observe a minimum setback as directed by the Corridor Vegetation Inspector.

C.4 Finish Grading

Upon completion of the subsoiled area, finish grade the area as described in standard spec 625.3.3, except that only light-weight equipment as approved by the Corridor Vegetation Inspector may be used. Drive no other equipment over the subsoiled area after the area has been finish-graded. Any subsoiled areas that are re-compacted shall be subsoiled and finish-graded at no expense to the department.

D Measurement

The department will measure Subsoiling by the acre of area, 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.0005.500	Subsoiling	ACRE

Payment is full compensation for subsoiling designated areas shown on the plans or as directed by the Corridor Vegetation Inspector; and performing finished grading operations of these subsoiled areas.

(1/23/2018)

95. Pre-Planting Vegetation Treatment, Item SPV.0005.501.

A Description

This special provision describes applying pre-seeding broadcast herbicides onto the Invasive Species and Weed Management Areas (including native seed planting areas) shown in the plans.

B Materials

B.1 Herbicides

Provide manufacturers labels with appropriate application rates to the Corridor Vegetation Inspector.

The selection of herbicide(s) to be used for controlling each target weed species shall be based upon the guidelines of the Midwest Invasive Plant Network's Invasive Plant Control Database (http://mipncontroldatabase.wisc.edu/). This site provides broadleaf herbicides recommendations for controlling broadleaf weeds, as well as grass-selective herbicides for controlling non-native cool season perennial grasses in early spring or late fall when warm season native grasses are dormant.

If the following broadleaf weeds are present, mix the low residual broadleaf herbicide 2, 4-Dichlorophenoxyacetic acid (2, 4-D) with glyphosate herbicide to ensure control:

Field Bindweed (Convolvulus arvensis)

Canada Thistle (Cirsium arvense)

Crown Vetch (Securigera varia)

Many broadleaf herbicides have extended periods of activity in the soil and can retard the germination and survival of many wildflower seedlings. The use of any broadleaf herbicide other than 2, 4-D must be approved by the Corridor Vegetation Inspector prior to application. Do not apply any herbicides to the seeding site that will adversely affect the germination and growth of native prairie seedlings.

Use one of the following grass-selective herbicides to control unwanted cool season grasses in native prairies:

Poast (Sethoxydim)

Fusilade (Fluazifop-p-butyl)

Clethodim

Each species of non-native cool season grass is more susceptible to damage by one of the above herbicides. Select the most effective herbicide for use on each target weedy grass species. Follow manufacturer's directions when mixing and applying herbicides. The addition of crop oil concentrate to the herbicide mix may be required to ensure successful control.

B.2 Herbicide Applicator Certification

Provide a DATCP-certified and -licensed applicator to apply herbicides. Provide copies of certification paperwork to the Corridor Vegetation Inspector prior to herbicide treatment.

C Construction

C.1 Pre-Seeding Treatment

Apply herbicide to the areas delineated in the plans as Invasive Species and Weed Management Areas and Shrub Bed Limits. All existing weeds, grasses, and other vegetation must be eliminated prior to

seeding or planting without disturbing the soil except for hand pulling individual weeds or woody vegetation.

After each herbicide application, fill out the department provided worksheet “Herbicide Treatment Summary”. Complete one worksheet per site per application, sign the worksheet, and submit to the Corridor Vegetation Inspector.

Herbicides used to control weeds prior to seeding or planting must be selected to ensure that post-application carry over in the soil will not affect germination of native seeds or shrubs. Apply herbicide at appropriate concentration.

Existing vegetation shall be treated with herbicide at least once prior to seeding or planting to kill all existing vegetation. The treatment of the vegetation shall be timed to ensure optimal weed control. Follow the suggested eradication sequence described below or obtain approval for other methods from the Corridor Vegetation Inspector.

1. If vegetation to be sprayed is taller than 12 inches, mow vegetation to 4 inches or less in height, 4 to 6 weeks before the first application of herbicide.
2. Apply the appropriate herbicide(s) when vegetation is at 12 inches in height, or has regrown to a height of at least 12 inches following mowing.
3. Re-treat undesirable vegetation after allowing it to regrow to a height of 12 inches. Do not mow, till, drive vehicles over, or disturb the vegetation in any way between herbicide applications.
4. After the final herbicide application, the area may be seeded with the native seed mixtures or planted with the shrubbery. The timing of the planting shall be according to the herbicide manufacturer’s instructions.

Prevent herbicide drift onto adjacent trees and shrubs. Plants damaged due to herbicide drift will be replaced at the expense of the contractor.

D Measurement

The department will measure Pre-Planting Vegetation Treatment by the acre, 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.0005.501	Pre-Planting Vegetation Treatment	ACRE

Payment is full compensation for furnishing and applying herbicide; re-applying herbicide as needed; documenting herbicide applications; and for mowing.

96. Seed Bed Preparation, Item SPV.0005.502.

A Description

This special provision defines the work needed for the native seeding areas that require seed bed preparation.

B (Vacant)

C Construction

C.1 Inspection and Approval

The native seeding areas have been finished with topsoil installed by others under a highway construction contract. Verify, with approval from the Corridor Vegetation Inspector, that the existing topsoil does or does not provide a suitable native seed planting bed that meets the following criteria: for the upper 2 inches of the topsoil, 100 percent of the material must pass a 1-inch sieve and at least 90 percent must pass the No. 10 sieve.

C.2 Surface Treatment

For those areas identified by the Corridor Vegetation Inspector that do not meet the topsoil requirements listed above, break down all clods and lumps using the appropriate pulverizing equipment to meet the specified gradation. Remove rocks, twigs, foreign material, and clods that cannot be broken down. Dress the entire surface to present a uniform appearance.

Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, stones larger than 1” in diameter, and/or any other construction refuse has been deposited within area(s) to be seeded. Remove any non-hazardous materials from the seed bed and inform the Corridor Vegetation Inspector of any hazardous materials.

D Measurement

The department will measure Seed Bed Preparation by the acre, 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.0005.502	Seed Bed Preparation	ACRE

Payment is full compensation for providing the equipment and labor needed to prepare the seed beds, as approved by the Corridor Vegetation Inspector, to a uniform appearance, and for removing and disposing of unsuitable or foreign material.

97. Roadway Embankment, Item SPV.0035.001.

Conform to standard spec 207 unless modified by this special provision.

A Description

Replace standard spec 207.1(1) with the following:

This section describes providing and placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation, or excavation for structure sections; or material obtained under Borrow as specified in standard spec 208 and modified under these special provisions.

B Materials

Conform to standard spec 207.2 except as follows:

The contractor may not place excess topsoil or other unstable material in embankments when the embankment fill height exceeds 10 feet.

C Construction

Conform to standard spec 207.3.

D Measurement

Replace standard spec 207.4(1) with the following:

The department will measure Roadway Embankment by the cubic yard acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

1. The engineer and contractor mutually agree to an alternative volume calculation method;
2. The method of average end areas is not feasible.

If it is not possible to compute volumes of the various classes of roadway and drainage embankment by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure embankment material beyond the limits of the required slopes as shown on the plans.

E Payment

Replace standard spec 207.5(1) with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	Roadway Embankment	CY

Payment is full compensation for providing material from roadway excavation or borrow material; and for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments and incidentals necessary to complete the contract work.

The department will pay for all work associated with select borrow material separately as specified under the Select Borrow bid item.

The department will pay for erosion control, fertilizing, and seeding of borrow sites and associated areas separately as specified for borrow sites and material disposal sites in standard spec 628.5.1.

(10/31/2016)

ASP-5 will be applied to this item. The Fuel Usage Factor for this item is 0.23.

98. Planting Mixture, Item SPV.0035.500.

A Description

This special provision describes furnishing and installing Planting Mixture at the planting bed locations shown in the plans.

B Materials

B.1 Planting Mixture

Provide Planting Mixture consisting of the following blend by volume:

- parts topsoil conforming to standard spec 625.
- 1 part sand conforming to the gradation in standard spec 209.2.2.
- 1 part compost. Provide compost that is either well-rotted shredded leaf mulch, free of disease; or well-rotted, unleached, stable or cattle manure containing no more than 25 percent by volume of straw, sawdust, or other bedding materials and free of toxic substances. Provide compost free of stones, sticks, soil, weed seeds, debris, and other material harmful to plant growth.
- 1 part peat moss conforming to standard spec 632.

Obtain review and approval of Planting Mixture by the Corridor Vegetation Inspector before use on project. The engineer reserves the right to reject planting mixture that does not conform to the specifications and/or does not come with the appropriate material certificates. The engineer may require samples (for USDA soil texture classification, pH, % organic matter, nutrient content, caution exchange capacity, soluble salts, and the presence of any materials deleterious to plant growth). Provide testing through a qualified testing laboratory approved by the State of Wisconsin to confirm that topsoil meets the requirements outlined in standard spec 625

C Construction

C.1 Coordination

Deliver Planting Mixture to project site and install within seven days of delivery. Coordinate and schedule the delivery and installation of the Planting Mixture with the delivery and installation of all landscape plant materials.

C.2 Planting Mixture Preparation and Placement

Provide a list of all materials used in Planting Mixture including manufacturers or suppliers (source) and quantities to the Corridor Vegetation Inspector.

Remove construction materials, stone, or other debris larger than 2” in length or diameter, debris, slag piles and trash from areas receiving Planting Mixture.

Till, disc, or hoe subgrade to loosen and de-compact. Obtain the engineer’s approval of subgrade preparation including depth excavated, removal of trash materials, and loosening of subgrades before placing any Planting Mixture.

Provide Planting Mixture over entire planting bed area and fine grade to match grades as indicated on plans or to adjacent back of curb or other hardscape surface as indicated on plans, accounting for settling. Place Planting Mixture in 6-inch to 8-inch lifts, watering or tamping to reduce settling potential. Place Planting Mixture to depths indicated in plans.

D Measurement

The department will measure Planting Mixture in volume 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.0035.500	Planting Mixture	CY

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials.

99. Topsoil Special, Item SPV.0035.501.

A Description

This special provision describes furnishing and installing Topsoil Special at planting bed locations and tree planting locations shown in the plans.

B Materials

Furnish topsoil materials according to standard spec 625.

C Construction

Remove construction materials, stone, or other debris larger than 2” in length or diameter, debris, slag piles and trash from area receiving Topsoil Special.

Till, disc, or hoe to loosen and de-compact. Obtain the Corridor Vegetation Inspector’s approval of subgrade preparation including depth excavated, removal of trash materials, and loosening of subgrades before placing any Topsoil Special.

Provide Topsoil Special to extents and depth indicated on the plans. Fine grade to match adjacent grades, accounting for settling. Place Topsoil Special in 6-inch to 8-inch lifts, watering or tamping to reduce settling potential.

D Measurement

The department will measure Topsoil Special in volume 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.0035.501	Topsoil Special	CY

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials.

100. High Performance Concrete (HPC) Masonry Structures, Item SPV.0035.700.

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502, and 509, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

MODIFY STANDARD SPECIFICATIONS AS FOLLOWS:

501.2.5.4.1 General

(1) The department will sample and test aggregates as follows:

LA Wear (100 and 500 revolutions)……..…….AASHTO T 96

Sodium Sulfate Soundness (R-4, 5 cycles)……AASHTO T 104

Freeze-Thaw Soundness…….. AASHTO T 103

Lightweight Pieces[1]…….. AASHTO T 113

[1]Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces by dividing the weight of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

(2) Contact the engineer a minimum of 4 weeks prior to placing concrete to collect a sample of aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

(3) The department will randomly sample coarse aggregate for lightweight pieces testing at least once at least once per 10,000 cubic yards during HPC structure concrete production.

(4) Use clean, hard, durable crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.

(5) Use virgin aggregates only.

501.2.5.4.2 Deleterious Substances

Replace paragraph one with the following:

The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Lightweight Pieces	2.0

501.2.5.4.3 Physical Properties

Replace paragraph one with the following:

The percent wear must not exceed 35, the weighted soundness loss must not exceed 6 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

501.3.2.4.3.3 Extended Delivery Time

Delete paragraph one.

501.3.5.1 General

Replace paragraph one with the following:

Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work under this special provision.

501.3.5.2 Delivery

Replace paragraph three with the following:

Deliver and completely discharge concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60° F or the use of department-approved retarders does not increase the discharge time.

501.3.7.1 Slump

Replace the entire text with the following:

Use a 2-inch to 4-inch slump.

Perform the slump tests for concrete according to AASHTO T 119.

501.3.8.2.1 General

Replace the entire text with the following:

The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions the contractor will take to control concrete temperature if the concrete temperature at the point of placement exceeds

80° F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 80° F, do not place concrete for items covered in this special provision.

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80° F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

The department will pay $0.75 per pound for the quantity of ice required to reach a target temperature of 75° F if the following conditions are met:

The un-iced concrete temperature exceeds 80° F.

The contractor has performed the actions outlined in the contractor’s accepted temperature control plan.

The contractor elects to use ice.

501.3.8.2.2 Bridge Decks and Structural Approach Slabs

Replace the entire text with the following:

(1) Do not place concrete for bridge decks or structural approach slabs when the ambient air temperature is above 80° F.

(2) For concrete placed in bridge decks and structural approach slabs, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions the contractor will take to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks or structural approach slabs without the engineer’s written acceptance of that evaporation control plan. Perform the work as outlined in the evaporation control plan.

(3) If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks or structural approach slabs.

(4) Provide evaporation rate predictions to the engineer 24 hours prior to each bridge deck or structural approach slab pour.

(5) Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in CMM 5.25, figure 1. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.

(6) At least 8 hours before each pour, the engineer will inform the contractor in writing whether or not to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the sole discretion of the engineer, the contractor may be allowed to implement immediate corrective action and complete the pour.

502.3.5.4 Superstructures

Delete paragraph five.

502.3.7.8 Floors

Delete paragraphs 13, 14 and 15.

Add the following to the end as paragraphs 19, 20 and 21:

(19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.

(20) Hand finishing, except for the edge of deck, must be kept to a minimum. The finishing machine must be equipped with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck immediately following the micro texture.

(21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

502.3.8.1 General

Replace paragraph one with the following:

Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

502.3.8.2.1 General

Replace the entire text with the following:

Wet cure the concrete for bridge decks, sidewalks and raised medians for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently so as to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is completely covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.

Do not uncover any portion of the deck at any time for any reason during the first 7 days of the curing period.

Set up and test the fogging system before each bridge deck, raised median and sidewalk pour. The fogging system must remain set up and in operating condition for the duration of the pour.

502.3.8.2.3 Decks

Delete the entire text.

502.3.8.2.4 Parapets

Replace the entire text with the following:

Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least 7 days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.9.

Secure coverings along all edges to prevent moisture loss.

502.3.9.6 Bridge Decks

Replace paragraph two with the following:

Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32° F during the cold weather protection period. Maintain a minimum temperature of 40° F in the enclosed area under the deck for the entire 14-day curing period.

502.5.1 General

Replace paragraph one with the following:

The department will pay for plan quantities according to standard spec 109.1.1.2 at the contract unit price and incidentals necessary to complete the work under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.700	High Performance Concrete (HPC) Masonry Structures	CY

710.5 Sampling and Testing

Add the following:

710.5.7 Chloride Penetration Resistance

(1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T 277 (Rapid Chloride Permeability Test) at a frequency of 1 test per 3 months (quarterly) of production.

(2) Permeability samples for AASHTO T 277 testing must be stripped of their molds and wet cured to an age of 7 days in a standard moist room or water tank. After 7 days, submerge the samples in water heated to 100° F until an age of 28 days. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T 277.

(3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on the AASHTO T 277 Rapid Chloride Permeability test. Chloride resistance testing conducted quarterly using AASHTO T 277 Rapid Chloride. Permeability Test during production will not be used for acceptance of previously accepted mixes and concrete masonry mixed and placed according to the contract requirements. For quarterly chloride resistance test results exceeding 1500 coulombs, the department may require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

715.2.3.2 Structures

Replace paragraph one with the following:

(1A) Develop and test each mix to be used for HPC Masonry Structures. Produce a laboratory trial mix for each mix, as well as a trial mix from each plant used to supply the project. Test all mixes at a department-qualified laboratory.

(1B) The laboratory trial mix data must include the results of the following tests:

1. AASHTO T 119 Slump of Hydraulic Cement Concrete.
2. AASHTO T 121 Mass per Cubic Foot, Yield.
3. AASHTO T 152 Air Content.
4. AASHTO T 22 Compressive Strength.
5. AASHTO T 277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to standard spec 710.5.7. (2) herein.
6. AASHTO T 309 Temperature.
7. Water Cement Ratio.

(1C) The 28-day compressive strength must be greater than or equal to 4000 psi. The 28-day results of the permeability test must be less than or equal to 1500 coulombs.

Replace paragraph two with the following:

(2) Provide a minimum cementitious content of 470 pounds per cubic yard and a maximum cementitious content of 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, conform to one of the following:

1. Use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes use 15% to 30% fly ash or 20% to 30% slag. For ternary mixes use 15% to 30% fly ash plus slag in combination. Percentages are stated as percent by weight of the total cementitious material in the mix.

Use a type IP or IS blended cement.

(10/26/2016)

101. Baseline CPM Progress Schedule, Item SPV.0060.001; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.002.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule

108.4.1 Software

Use the latest version of Oracle (Primavera) Project Manager (P6) version 7.0 or newer to prepare the Initial Work Plan Schedule, Baseline CPM Progress Schedule, and all Monthly CPM Updates.

108.4.2 Personnel

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for department approval a professional resume describing a minimum of three years of developing and

managing specific CPM scheduling experience on major (interstate) highway reconstruction projects or projects of similar size and complexity. This includes recent experience using Oracle P6 software.

108.4.3 Definitions

The department defines terms used in standard spec 108.4 as follows:

Activity

A task, event or other project element on the schedule, during the course of the project that contributes to completing the project. Activities have a description, scheduled (or actual) start and finish dates, duration and one or more logic ties.

Critical Path

The longest continuous path of activities through the project that has the least amount of total float. In general, a delay on the critical path will extend the scheduled completion date.

Critical Path Method (CPM)

A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

Construction Activity

Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

CPM Progress Schedule

A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

Data Date

The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned."

Department’s Preliminary Construction Schedule (PCS)

The department’s schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

Float

Float, as used herein, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

Forecast Completion Date

The completion date(s) predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date(s), depending on progress.

Fragnet

A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order or delay impact.

Initial Work Plan Schedule

The Initial Work Plan (IWP) Schedule is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

Intermediate Milestone Date

A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.

Master Program Schedule

The department’s schedule for the overall I-39/90 Corridor Management Program, including intermediate milestone dates contract completion dates and codes.

Procurement Activity

Procurement activities are activities of duration reflecting contractor preparation and submittal of material submittals, department approval of material submittals, material fabrication durations, and material delivery durations.

Work Breakdown Structure (WBS)

A framework for organizing the activities that makes up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

108.4.4 Department's Preliminary Construction Schedule

The department's Preliminary Construction Schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's Preliminary Construction Schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Construction Schedule reflects one possible approach to completing the work, consistent with the traffic phasing requirements and the interim/final completion date(s) contained in the contract. The logic contained in the Preliminary Construction Schedule is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's Preliminary Construction Schedule is at the sole risk of the contractor.

108.4.5 Contractor's Scheduling Responsibilities

The CPM Schedule shall be a tool capable of forward planning and monitoring the Project. The schedule will further be used as a communication tool between the contractor and the department. It will be used to illustrate the plan, develop what-if scenarios, and analyze impacts. The accuracy and completeness of the CPM Schedule will benefit both the contractor and the department. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines.

The contractor shall submit to the department initial and monthly update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule. Schedules shall show the order in which the contractor proposes to carry out the work with logical links between activities, and calculations made using the critical path method to determine the controlling operation or operations. The contractor is responsible for assuring that each schedule shows a coordinated plan for complete performance of the work. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Contactor project management personnel shall actively participate in the schedule development, the monthly updating of progress, and all schedule revisions throughout the entire duration of the contract. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate schedule.

108.4.6 Submittals

108.4.6.1 Initial Work Plan Schedule

Submit an Initial Work Plan (IWP) Schedule consisting of the following:

1. Provide a detailed plan of activities to be performed during the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
2. Provide activities as necessary to depict administrative work, including submittals, reviews, material procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).
3. Provide activities as necessary to depict third-party work related to the contract.
4. Provide summary activities for the balance of the project beyond the first 90 calendar days of the project. Summary activities may have durations greater than 28 calendar days (20 business days).

5. Submit the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following DOT email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

6. Following department receipt of the IWP Schedule, allow ten business days for department review and return of comments. Within five business days of receiving the IWP Schedule, the department will schedule a workshop for the contractor to present the IWP Schedule and to answer questions raised during the department's review. Provide formal responses to the comments and resubmit the IWP Schedule as necessary. A notice to proceed will not be issued until the engineer accepts the IWP Schedule. The department will use the IWP Schedule to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.

7. Submit an updated version of the IWP Schedule on a bi-monthly basis (every other week) until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

108.4.6.2 Baseline CPM Progress Schedule

Within ten business days of receiving an approved IWP Schedule, as required in the contract, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM schedule. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:

    1.1 Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.

    1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, material procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).

    1.3 Provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to Railroads, Utilities, Real Estate and local government agencies.

    1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and potential or approved weather delays; reflect involvement and reviews by the department; and coordination efforts with adjacent contractors, utility owners, and other third parties.

    1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. Predecessors and successors shall not be linked to the same activity with different relationship types. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish- to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag or overlap unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.

    1.6 Schedule activities shall include the following:

        a. A clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.

b. Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.

c. Activities shall carry a single Responsibility assignment.

1.7 Schedule all intermediate milestones in the proper sequence and input as either a "Start on or After" or "Finish on or Before" date. Do not use other constraint types, within the software, without prior approval by the engineer. Do not apply date constraints on any work tasks without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule shall encompass all the time in the contract period between the starting date and the specified completion date.

1.8 Develop and submit an anticipated cash-flow curve for the project within the P6 application, based on the Baseline CPM schedule by assigning cost values to selective work tasks within the CPM schedule that total the value of the contract.

1.9 Provide budgeted quantities consistent with the bid quantities on selective construction tasks within the CPM schedule. The engineer will provide a summarized list of 30 generalized quantity items that will be identified and applied by the contractor using the P6 software application.

2. Provide an electronic PDF of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

3. Provide a written narrative with the Baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:

   3.1 The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.

   3.2 Use of constraints.

   3.3 Use of calendars.

   3.4 Estimated number of adverse weather days on a monthly-basis.

   3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

4. Submit the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

Within ten business days of receiving the Baseline CPM schedule, the department will schedule a workshop, review the submittal, and return review comments.

Within five business days after the Baseline CPM scheduling workshop, the department will either accept the contractor's Baseline CPM schedule or provide additional comments. Within five business days, address the department's comments and resubmit a revised Baseline CPM, including formal responses to the department's review comments. If the engineer requests justifications for activity durations provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer's acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements.

The department will not consider requests for contract time extensions as specified in 108.10 or additional compensation for delay specified in standard spec 109.4.7 until the department accepts the Baseline CPM schedule.

108.4.6.3 Monthly CPM Schedule Updates

Submit CPM Schedule updates on a monthly basis after acceptance of the Baseline CPM Schedule. With each CPM Schedule update, include the following:

1. Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities, through the final acceptance of the project.
2. Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of potential delay, work planned for the next 30 calendar days, and all changes to the CPM Schedule. Changes to the CPM Schedule include the addition or deletion of activities, changes to activity descriptions, original durations, relationships, overlap (lag/lead), constraints, calendars, or previously recorded actual dates. Justify changes to the CPM Schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
4. Submit each CPM Schedule update; including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's. Submit the P6 native data file (XER), the electronic file (PDF), responses to the DOT review comments, and the progress schedule update narrative to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov
5. Within ten business days of receiving each CPM Schedule update, the engineer will provide formal review comments and schedule a meeting, if necessary, to address comments raised in the department's review. Address the department's comments and resubmit a revised CPM Schedule update within five business days after the department's request.

108.4.6.4 Three-Week Look-Ahead Schedules

Submit Three-Week Look-Ahead Schedules on a weekly basis after NTP. The schedule shall be prepared by computer. Provide three hard copies (11" x 17") to the engineer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Actual as-built dates for completed activities through final acceptance of the project.
3. Planned work for the upcoming three-week period.
4. The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.
5. On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look- Ahead schedules for the month when updating the CPM schedule.

108.4.6.5 Weekly Production Data

Provide estimated and actual weekly production curves for items of work on a weekly basis for applicable items of work as requested by the department including but not limited to the following:

1. Provide data on the following items by the units specified:

    1.1 Underground Facilities – LF per week

    1.2 Retaining Walls – SF per week

        MSE Walls

        Other Wall Types

1.3 Bridge Construction

Foundation Pile – EACH per week

Foundation/Substructure Concrete – CY per week

Structural Steel Girders – EACH per week

Prestressed Concrete Girders – EACH per week

Deck Formwork – SF per week

1.4 Roadway Excavation – CY per week

1.5 Roadway Embankment – CY per week

1.6 Roadway Structural Section

Grading/Subgrade Preparation – SY per week

Base Material Placement – TON per week

Base Material Subgrade Preparation – SY per week

Asphaltic Base – TON per week

Asphaltic and HMA Pavements – TON per week

Concrete Pavement – SY per week

Concrete Pavement – CY per week

1.7 Finishing Items – SY per week

Note: Base material shall include all breaker run, base aggregate, subbase items or other base items included in the contract. Provide production information for each individual base material item.

2. For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week. Also include cumulative production curves showing the production information for each item to date.
3. Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

108.4.7 Progress Review Meetings

After completing the weekly submittal of the Three-Week Look-Ahead Schedules and production data, attend a weekly progress review meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

After submitting the monthly update and receiving the engineer's comments, attend a job-site meeting, as scheduled by the engineer, to review the progress of the schedule. At that meeting, address comments as necessary, and document agreement or disagreement with the department. The monthly meeting will be coordinated to take place on the same day and immediately before or after a weekly meeting, whenever possible.

108.4.8 CPM Progress Schedule Revisions

A CPM Progress Schedule Revision may be submitted, prior to the next CPM Monthly Update, if necessary due to changes in the Work or project conditions as authorized by the engineer. Prepare the CPM Revision in the same format as required for CPM Monthly Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
2. An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
3. The engineer determines that the progress of the work differs significantly from the current schedule.
4. A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

108.4.9 Documentation Required for Time Extension Requests

The information below is to be applied in compliance with standard spec 108.9 and 108.10 and does not replace the above mentioned specifications. To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative document separate from the monthly schedule update narrative document that specifically details the work added or deleted and the other activities affected and or impacted based on the latest accepted CPM Monthly Update. For added work including impact delay activities, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Monthly Update. Requests for time extensions due to delays shall meet the following criteria:

1. For requests to extend the contract completion date, include a detailed description of how the delay, or additional work, affected the project's critical path, based on the latest accepted CPM Monthly Update.
2. For requests to extend an intermediate milestone date, include a description of how the delay, or additional work, affected the controlling (longest) path to the milestone, based on the latest accepted CPM Monthly Update.
3. The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

108.4.10 Measurement for CPM Progress Schedule

The department will measure Baseline CPM Progress Schedule for each required submittal, acceptably completed.

The department will measure CPM Progress Schedule Updates and Accepted Revisions for each required submittal, acceptably completed.

108.4.11 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.001	Baseline CPM Progress Schedule	EACH
SPV.0060.002	CPM Progress Schedule Updates and Accepted Revisions	EACH

Payment is full compensation for furnishing all work required under these bid items. The department will pay the contract unit price for the Baseline CPM Progress Schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Progress Schedule update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

Failure to provide satisfactory schedule submittals within the times specified will result in liquidated damages being assessed and may result in the department managing to the contractor's latest accepted schedule until such time as the contractor submits an updated or revised schedule.

If the contractor does not provide satisfactory progress schedule submittals, updates and revisions, within the time specified by these specifications, the department will assess liquidated damages. The department will deduct the amount of $500 per calendar day due to the contractor for every calendar day that the submission of the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule is delinquent.

If the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule update submittals are not received by the department within 10 business days after the submittal time specified, and, within 10 days of the submittal date, the engineer finds the schedule submittal unacceptable, the department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the schedule is submitted and found acceptable.

(10/25/2017)

102. Cover Plates Permanent, Item SPV.0060.003.

A Description

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

B Materials

Provide a 0.50-inch minimum thickness steel plate that extends, at a minimum, to the outside edge of the existing concrete structure.

C Construction

Install the cover plate to the structure securely using stainless steel anchors. Do not cover the plate until the engineer examines the installation.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.003	Cover Plates Permanent	EACH

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

The steel plate will become the property of the department when no longer needed in the contract work.

103. Access Gate 3-Foot Polymer-Coated, Item SPV.0060.004.

A Description

This special provision describes furnishing and erecting polymer-coated access gates per the plan detail at locations shown on the plans or as directed by the engineer, and as hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials

Furnish all fence and gate materials according to standard spec 616 and according to the details shown in the plan. Gates and fence materials shall be chain link and according to standard spec 616.2.1 and 616.2.3 and polymer-coated. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

Overall dimensions shall be a minimum of 72-inches tall and a minimum of 30-inches wide. Dimensions between overall vertical height and overall horizontal width can vary slightly from the plan detail if approved by the engineer.

Latch chains shall be ASTM A413/A413M, Grade 30. The chain shall be galvanized, 2’-0” in length, and have size requirements consistent with 3/8” regular link. All latch chains used on keeper posts shall have an attached ‘S’ link attached to the end of the chain as shown in the plans.

Keeper posts shall be furnished according to standard spec 634.

Provide polymer-coating over zinc-coating on all components that conforms to ASTM F626 and F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction

Construct the gate as shown in the plan and according to standard spec 616.3.1 and 616.3.3.

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 condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

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

Install the gate according to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement

The department will measure Access Gate 3-Foot Polymer Coated as each individual unit, acceptably installed and completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.004	Access Gate 3-Foot Polymer Coated	EACH

Payment is full compensation for furnishing and installing all materials including polymer-coating, excavation and removing all excess excavation; for setting posts including placing concrete; for erecting and tensioning all fencing components; for providing the gate; for completing any touch-up and repairs; for signs; for keeper posts; for latch chains and 'S' hooks; and for all bolts, hardware, and other connection pieces found in the plan.

104. Access Gate 6-Foot, Item SPV.0060.005.

A Description

This special provision describes furnishing and erecting access gates per the plan detail at locations shown on the plans or as directed by the engineer, and as hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials

Furnish a round steel pipe tubing gate that has a minimum of 6 horizontal rails. Overall dimensions shall be a minimum of 48-inches tall and a minimum of 66-inches wide. Dimensions between overall vertical height and overall horizontal width can vary slightly from the plan detail if approved by the engineer.

Gate will have round, heavy steel pipe tubing with a minimum outside diameter of 1-3/4 -inches constructed of a minimum 20 gauge thickness. Steel pipe tubing shall be painted. The paint color shall be either green or gray.

Provide Grade "A" Concrete Masonry according to standard spec 501 to set 6-inch diameter x 8-foot treated wood gate posts.

Provide zinc-coated bolts, nuts and washers that are according to ASTM Designation A325.

C Construction

All field welded surfaces shall have all paint removed and be properly cleaned prior to welding. After welding is complete, surface shall be primed with premixed rustproof paint followed by two field coats of enamel paint.

D Measurement

The department will measure Access Gate 6-Foot as each individual unit acceptably installed and completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.005	Access Gate 6-Foot	EACH

Payment is full compensation for furnishing and installing all materials including the gate, welding, hardware, latch chain, gate posts, and concrete masonry. The department will supply the keyed lock.

(8/12/2014)

105. Access Gate 20-Foot Polymer-Coated, Item SPV.0060.006.

A Description

This special provision describes furnishing and erecting polymer-coated access gates per the plan detail at locations shown on the plans or as directed by the engineer, and hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials

Furnish all fence and gate materials according to standard spec 616 and according to the details shown in the plan. Gates and fence materials shall be chain link and according to standard spec 616.2.1 and 616.2.3 and polymer-coated. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

Latch chains shall be ASTM A413/A413M, Grade 30. The chain shall be galvanized, 2'-0" in length, and have size requirements consistent with 3/8" regular link. All latch chains used on keeper posts shall have an attached 'S' link attached to the end of the chain as shown in the plans.

Keeper posts shall be furnished according to standard spec 634.

Furnish new signs as shown in the plan and according to standard spec section 637. Furnish and install sign connections as shown in the plans.

Provide polymer-coating over zinc-coating on all components that conforms to ASTM F626 and F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction

Construct the gate as shown in the plan and according to standard spec 616.3.1 and 616.3.3.

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 condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

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

The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

Attach each sign to the face of the gate as shown in the plan.

D Measurement

The department will measure Access Gate 20-Foot Polymer-Coated by each unit for each access gate, acceptably installed and completed. Each Access Gate 20-Foot Polymer-Coated consists of the 8 feet of fencing on each side of the gate area, the gate, signs, latch chains, and keeper posts.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.006	Access Gate 20-Foot Polymer-Coated	EACH

Payment is full compensation for furnishing and installing all materials including polymer-coating, excavation and removing all excess excavation; for setting posts including placing concrete; for erecting and tensioning all fencing components; for providing the gate; for completing any touch-up and repairs; for signs; for keeper posts; for latch chains and 'S' hooks; and for all bolts, hardware, and other connection pieces found in the plan.

106. Access Gate 20-Foot, Item SPV.0060.007.

A Description

This special provision describes furnishing and erecting access gates per the plan detail at locations shown on the plans or as directed by the engineer, and hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials

Furnish all fence and gate materials according to standard spec 616 and according to the details shown in the plan. Gates and fence materials shall be chain link and according to standard spec 616.2.1 and 616.2.3.

Latch chains shall be ASTM A413/A413M, Grade 30. The chain shall be galvanized, 2'-0" in length, and have size requirements consistent with 3/8" regular link. All latch chains used on keeper posts shall have an attached 'S' link attached to the end of the chain as shown in the plans.

Keeper posts shall be furnished according to standard spec 634.

Furnish new signs as shown in the plan and according to standard spec 637. Furnish and install sign connections as shown in the plans.

C Construction

Construct the gate as shown in the plan and according to standard spec 616.3.1 and 616.3.3.

Attach each sign to the face of the chain link gate as shown in the plan.

D Measurement

The department will measure Access Gate, 20-Foot by each unit for each access gate, acceptably installed and completed. Each Access Gate, 20-Foot consists of the 8 feet of fencing on each side of the gate area, the gate, signs, latch chains, and keeper posts.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.007	Access Gate 20-Foot	EACH

Payment is full compensation for furnishing and installing all materials including excavation and removing all excess excavation; for setting posts including placing concrete; for erecting and tensioning all fencing components; for providing the gate; for signs; for keeper posts; for latch chains and 'S' hooks; and for all bolts, hardware, and other connection pieces found in the plan.

(4/6/2015)

107. Concrete Barrier Transition Type S56 to Sign Bridge, Item SPV.0060.008.

A Description

This item shall be according to the pertinent requirements of standard spec 603 and shall conform to the construction details shown in the plans.

B Materials

The concrete barrier transition shall be according to the pertinent materials of standard spec 603.2.

C Construction

Perform work according to standard spec 603.3.

D Measurement

The department will measure Concrete Barrier Transition Type S56 to Sign Bridge as each individual transition, 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.0060.008	Concrete Barrier Transition Type S56 to Sign Bridge	EACH

Payment is full compensation according to the standard spec 603.5.2.

108. Test Pits, Item SPV.0060.009.

A Description

This special provision describes excavating test pits and backfilling as directed by the engineer and geotechnical engineer and as hereinafter provided. Test pits are for the purpose of locating and relieving trapped water within the existing roadway embankments.

B Materials

Construct test pits conforming to standard spec 205.2 for Roadway Excavation.

Provide materials to conform to standard spec 312.2 for Select Crushed Material.

C Construction

All excavation of test pits shall be performed during daytime hours. The engineer and geotechnical engineer (Hassen A. Hassen, hassen.hassen@dot.wi.gov) must be present during excavation.

The location of test pits will be determined by the engineer and geotechnical engineer. Contact the engineer at least 4 weeks prior to earthwork operations. Test pits shall be excavated at least 2 weeks prior to roadway excavation operations. Different timelines, to meet particular project needs, may be required by the engineer and geotechnical engineer.

Excavate the foreslope of the existing roadway embankment beginning at the edge of the existing subgrade shoulder point at a slope of 1:1 down to the elevation of the toe of existing slope, but no lower than 1 foot above the ditch flow line if a ditch is present. Excavations shall be 10 feet wide measured parallel to the roadway shoulder. The bottom of the test pit shall be sloped to drain away from the roadway.

If water is present or seeping from the embankment, backfill with select crushed where the test pit is located on an embankment that is supporting live traffic. Place select crushed to stabilize the test pit and allow water to seep out. If the embankment is not supporting live traffic, then the test pit shall remain open and maintained until seeping stops or as approved by the engineer and geotechnical engineer.

If water is not present or seeping from the embankment, backfill the test pit with roadway embankment or a material approved by the engineer and geotechnical engineer.

D Measurement

The department will measure Test Pits by each unit, acceptably installed.

The department will measure Select Crushed Material as specified in standard spec 312.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.009	Test Pits	EACH

Payment is full compensation for all engineer approved work specified including excavating, sloping, shaping, stockpiling, backfilling with roadway embankment, compacting, and maintaining.

If select crushed material is required for backfilling, the department will pay for select crushed under the select crushed item 312.0110. The department will pay for erosion control, if required, under the erosion control bid items.

(5/22/2017)

109. Uncovering Signs, Item SPV.0060.010.

A Description

This special provision describes uncovering signs previously covered in another project as shown in the plans.

B (Vacant)

C Construction

Remove existing covering from signs without damaging sign.

D Measurement

The department will measure Uncovering Signs as each individual sign uncovered, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.010	Uncovering Signs	EACH

Payment is full compensation for removing covers; disposing of materials; and for repairing or replacing damaged signs.

110. Remove and Salvage Bus Shelter, Item SPV.0060.011.

A Description

This special provision describes removing and salvaging existing bus shelters as shown in the plans.

B (Vacant)

C Construction

Remove and salvage the existing bus shelters as specified in the plans. Store the bus shelter off the project site for City of Janesville pickup. Contact Kamron Nash, City of Janesville (608) 755-3102 three calendar days prior to removing the bus shelter. Any damage to the bus shelter during the salvaging and storage will be repaired or replaced at the expense of the contractor.

D Measurement

The department will measure Remove and Salvage Bus Shelter 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.0060.011	Remove and Salvage Bus Shelter	EACH

Payment is full compensation for removing and storing bus shelter; and for disposing of materials.

111. Removing Billboard Sign and Sign Structure, Item SPV.0060.012.

A Description

This special provision describes removing existing billboards and supports according to the applicable sections of standard spec 638 and as hereinafter provided.

B (Vacant)

C Construction

Remove the complete billboard unit including signs, supports, footings, ladders, walkways, electrical systems and all appurtenances from the locations designated on the plans. Excavate to remove the footings 2 feet below the existing ground surface and provide adequate backfill and compaction of the removal area to eliminate settling. Restore the surface around the location to the same condition as surrounding area and as directed by the engineer. Billboards with multiple supports and signs at the same location, but not necessarily connected, will be considered one complete unit.

The contractor shall coordinate with electric utility owner for disconnection of the power service prior to removal of the billboard and billboard supports, if applicable. The power supply shall be removed to a location that allows safe termination and burying.

D Measurement

The department will measure Removing Billboard Sign and Sign Structure as each individual complete billboard unit removed, 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.0060.012	Removing Billboard Sign and Sign Structure	EACH

Payment is full compensation for removing the signs, supports, footings, ladders, walkways, electrical systems and all appurtenances associated with the billboard; for removal from the project site; for backfilling any necessary areas; for restoring the surface; and coordination with utilities and following utility and OSHA removal requirements. Removed items are property of the contractor.

112. Catch Basins 2x2-FT, Item SPV.0060.100; Catch Basins 2x2.5-FT, Item SPV.0060.101; Catch Basins 6x6-FT, Item SPV.0060.102; Catch Basins 8-FT Diameter, Item SPV.0060.103.

A Description

This item shall be according to the pertinent requirements of standard spec 611 and shall conform to the construction details shown in the plans.

B Materials

The catch basins shall be according to the pertinent materials of standard spec 611.

C Construction

Perform work according to standard spec 611.

D Measurement

The department will measure Catch Basins (dimensions) 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.0060.100	Catch Basins 2x2-FT	EACH
SPV.0060.101	Catch Basins 2x2.5-FT	EACH
SPV.0060.102	Catch Basins 6x6-FT	EACH
SPV.0060.103	Catch Basins 8-FT Diameter	EACH

Payment shall be according to standard spec 611.5.2.

113. Securing Structure Covers, Item SPV.0060.104.

A Description

This special provision describes providing a fastening device on any drainage structure that is within the travel lanes or shoulders during staged construction and hereinafter described.

B (Vacant)

C Construction

Prior to any traffic shift where inlets or manholes will be within the travel lanes or shoulders, secure the drainage cover to the frame by weld, bolt or other engineer approved method. Prior to fastening cover, place any required inlet protection. Minor cutting of inlet protection fabric is required to allow for an edge to weld between the grate and frame.

Maintain the cover and ensure it remains secured to the frame until no longer within the travel lanes or shoulders.

D Measurement

The department will measure Securing Structure Covers as each individual unit acceptably completed. Locations that require reinstallation of the fastening device are incidental to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.104	Securing Structure Covers	EACH

Payment is full compensation for securing drainage covers, maintenance of the fastening device, and removal of fastening device upon completion of the work. The department will pay for covers (including frames, grates and lids) separately if damaged due to traffic loading.

114. Sediment Level Monitoring Post, Item SPV.0060.105.

A Description

This special provision describes furnishing, assembling and installing Sediment Level Monitoring Posts at the locations shown on the plans or as directed by the engineer.

B Materials

Furnish post material according to standard spec 634.2.5.

Furnish a staff gauge with a porcelain enamel finish to resist rust and discoloration and features graduation marks every inch.

Submit shop drawings showing the details of sediment level monitoring post construction. Show the post height, staff gauge height, width, material and all dimensions necessary for the construction of the post.

C Construction

Install post according to standard spec 634.3.

Fasten staff gauge to post according to manufacturer’s recommendations.

D Measurement

The department will measure Sediment Level Monitoring Post 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.0060.105	Sediment Level Monitoring Post	EACH

Payment is full compensation for furnishing, hauling and placing the posts; providing and placing staff gauge; and for providing all hardware and anchors.

115. Monitoring Well, Item SPV.0060.106.

A Description

This special provision describes furnishing, assembling, and installing monitoring wells at the locations shown on the plans or as directed by the engineer. This work shall be according to the requirements of the plans and standard specifications and Section NR 141 of the Wisconsin Administrative Code.

B Materials

Materials incorporated into the work shall meet the requirements of materials named and as herein specified.

Provide well casing and cap composed of polyvinyl chloride (PVC) pipe conforming to the requirements of subsection NR 141.07 of the Wisconsin Administrative Code.

Provide well screen that is fabricated from polyvinyl chloride (PVC) pipe and conforms to the requirements of subsection NR 141.09 of the Wisconsin Administrative Code.

Provide concrete according to standard specification 501.

Provide filter sand that is clean, well-graded, fine silica sand visibly free of clay, dust, micaceous matter, and organic matter; has a specific gravity of not less than 2.50; and is not more than 5% by weight of its content soluble in a 10% hydrochloric acid solution. Sand produced by crushing limestone dolomite, or other materials containing clay and/or materials that may adversely impact the performance of the head monitoring well shall not be used as filter sand. Provide filter sand that has a Uniformity Coefficient (Cu) of not more than 1.5, and meets the following gradation requirements:

Sieve Size	Percent Passing
No. 40	96 – 100
No. 60	0 - 5

C Construction

Install monitoring wells at the locations shown on the plans or as directed by the engineer and in compliance with the details and dimensions shown on the plans.

Use only hollow stem augers, solid stem augers, or air rotary method drill techniques for installation of monitoring wells. The drilling method selected shall permit the proper construction of the required diameter well. Do not use a drilling method that introduces oils, lubricants, or other contaminants into the borehole.

Join all well casing and well screen sections with flush threaded joints. Use casings, screen, and fittings that are free of deformation, damage, or flaws, or any other defect that may impact the performance of the completed well.

Place and center the well screen and well casing in the prepared borehole. Evenly place the filter sand to surround the well screen to the depth shown on the plans. Use a measuring device during filter sand placement to ensure that the material is evenly placed and that bridging does not occur. If bridging is detected, tamp the filter sand into place to eliminate such bridging.

After satisfactory installation of the monitoring well, clean and restore the site to meet the approval of the engineer. Do not leave excess drill cuttings at the site unless approved by the engineer.

D Measurement

The department will measure Monitoring Well as each unit, and the quantity measured for payment will be the number of individual monitoring wells constructed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.106	Monitoring Well	EACH

Payment is full compensation for furnishing all materials and components; all drilling and drilling procedures necessary for well installation; installing all well components and materials; installing all protective devices and components; removing all excess drill cuttings and fluids; disposing of all surplus materials; cleaning and restoring the embankment and/or roadway surface after well completion; and completing and submitting all required forms and documentation.

116. Covering Storm Sewer, Item SPV.0060.107.

A Description

This special provision describes how various sized storm sewer pipe stubs and storm sewer structure pipe cutouts will be covered to prevent sediment from infiltrating into the storm sewer system. The locations of covering storm sewer are shown on the plans.

B Materials

Furnish storm sewer stub covers made of a polyethylene film and plywood. Provide a polyethylene film meeting the following requirements:

Property Requirements	Vaule	Test Method
Tensile Strength, min.	40 lbf	ASTM D7003
Grab tensile strength, min.	50 lbf	ASTM D7004
Elongation at Breat, min.	400%	ASTM D7003
Hydrostatic Resistance	32 psi	ASTM D751
Permeability	0.058 g/100in ^{2}/day	ASTM E96 Pro. B

Provide plywood with a minimum thickness of 3/4-inch at storm sewer pipe stub locations.

C Construction

Completely cover the storm sewer openings with one continuous piece of polyethylene film. Cover a minimum of one foot of the stub length or one foot of the structure height with the polyethylene film and secure the polyethylene film to the storm sewer pipe stub or storm sewer structure.

Place a sheet of plywood to cover the opening of the storm sewer stub. Provide one continuous sheet and extend the plywood sheet a minimum of 2 inches beyond the outside diameter of the pipe on all sides.

Place the plywood tight to the polyethylene film and the storm sewer stub and secure the plywood as necessary to prevent movement or separation from the pipe while backfilling the trench.

D Measurement

The department will measure Covering Storm Sewer by each individual covering storm sewer, 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.0060.107	Covering Storm Sewer	EACH

Payment is full compensation for furnishing all specified materials; and for delivering and assembling.

117. Inlet Cover Driveway Special, Item SPV.0060.108.

A Description

This item shall be according to the pertinent requirements of standard spec 611 and shall conform to the construction details shown in the plans.

B Materials

Furnish the inlet cover according to the pertinent materials of standard spec 611.

C Construction

Perform work according to standard spec 611.

D Measurement

The department will measure Inlet Cover Driveway Special by each individual cover 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.0060.108	Inlet Cover Driveway Special	Each

Payment shall be according to standard spec 611.5.

118. Fixed Message Sign Portable Support, Item SPV.0060.201.

A Description

This special provision describes the construction of portable sign supports for fixed message signs as shown on the plans.

B Materials

Use lumber and hardware conforming to standard spec 634.

C Construction

Construct the fixed message sign portable support according to the detail on the plans. Grade pad surrounding location of portable support such that the support can be located on a level surface.

D Measurement

The department will measure Fixed Message Sign Portable Support as each location acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.201	Fixed Message Sign Portable Support	EACH

Payment is full compensation for furnishing and installing fixed message sign portable supports; for preparing a level location for sign support; and for removing the portable supports at the completion of the work. Signs will be paid for separately under the Traffic Control Signs Fixed Message bid item.

119. Crash Cushion Temporary Low Maintenance, Item SPV.0060.203.

A Description

This special provision describes providing and installing a temporary low maintenance crash cushion according to standard spec 614, as directed by the engineer, and as hereinafter provided.

B Materials

Replace the first sentence of standard spec 614.2.7(1) with the following:

Use Model SCI 100GM Crash Attenuator from Smart Cushion Innovations (SCI) Products for crash cushion temporary low maintenance.

C Construction

Conform to standard spec 614.

D Measurement

The department will measure Crash Cushion Temporary Low Maintenance, 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.0060.203	Crash Cushion Temporary Low Maintenance	Each

Payment is full compensation for providing, installing, maintaining, and removing of low maintenance crash cushions at temporary locations as designated in the plans.

(8/1/2017)

120. Install Department Furnished Crash Cushion Low Maintenance, Item SPV.0060.205.

A Description

This special provision describes transporting, installing, and salvaging a department-furnished low maintenance crash cushion at a location as directed by the engineer according to standard spec 614, and as hereinafter provided. Maintenance/repair of a department-furnished low maintenance crash cushion is covered under a separate bid item.

B Materials

Replace the first sentence of standard spec 614.2.7(1) with the following:

The department will furnish the low maintenance crash cushion (Model SCI 100GM Crash Attenuator from Smart Cushion Innovations (SCI) Products).

Pick-up and transport the department-furnished low maintenance crash cushion from the department's designated storage site to the project's installation site upon coordination and approval from the engineer.

C Construction

Replace the first sentence of standard spec 614.3.4(1) with the following:

Install a department-furnished low maintenance crash cushion at locations directed by the engineer within three (3) days of receiving notification from the engineer.

When its use is no longer needed, the department-furnished low maintenance crash cushion shall be salvaged and returned to the department's storage site.

D Measurement

The department will measure Install Department Furnished Crash Cushion Low Maintenance, 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.0060.205	Install Department Furnished Crash Cushion Low Maintenance	EACH

Payment is full compensation for pick-up and transport from the department's designated storage site to the project, installation, salvaging and transport back to the department's storage site of a department-furnished low maintenance crash cushion as described in this article.

(10/11/2017)

121. Emergency Response to Traffic Incident Involving Conc Barrier Temp Precast, Item SPV.0060.206.

A Description

This special provision describes providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier located on IH 39 or an IH 39 ramp that is damaged or displaced due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide staff, equipment, and materials to the incident site within 45 minutes of receiving a repair request from the responding agency. The contractor shall consult with the department's representative on potential repair or replacement options to restore the temporary concrete barrier to proper working condition. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started. Repair work shall be completed off the traveled way to the maximum extent allowable. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff and equipment within 45 minutes of receiving a repair request, the department will assess the contractor $2,500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted 45-minute response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

For contractor owned temporary barrier, repair work shall be completed according to standard spec 603 and 643, and as directed by the engineer. For state-owned temporary barrier, repair work is covered under article Repair State Owned Concrete Barrier Temporary Precast of these special provisions.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Concrete Barrier Temporary Precast as each individual response, 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.0060.206	Emergency Response to Traffic Incident Involving Concrete Barrier Temporary Precast	EACH

Payment is full compensation for providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier located within the project limits.

The cost of providing the appropriate level of on-call staff, equipment, and materials for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(11/29/2017)

122. Emergency Response to Traffic Incident Involving Crash Cushion, Item SPV.0060.207.

A Description

This special provision describes providing prompt response to an emergency repair request involving a damaged crash cushion device on IH 39 or an IH 39 ramp that is displaced or damaged due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide appropriate staff to the incident site within 45 minutes of receiving a repair request from the responding agency. Staff deployed shall be capable of immediately assessing the severity of the damage to the device and consult with the department's representative on potential repair or replacement options and the projected timeline to restore the roadside device to its proper working condition. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff within 45 minutes of receiving a repair request, the department will assess the contractor $2,500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted 45-minute response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

For contractor owned devices, repair work shall be completed according to standard spec 614, and as directed by the engineer. For state-owned devices, repair work is covered under articles Repair State Owned Crash Cushion or Repair State Owned Crash Cushion Low Maintenance of these special provisions. In either case, once repair work has been started, work shall continue until completion. Repair work shall be completed off the traveled way to the maximum extent allowable.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Crash Cushion as each individual response, 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.0060.207	Emergency Response to Traffic Incident Involving Crash Cushion	Each

Payment is full compensation for providing a prompt staff response to an emergency repair request for a damaged crash cushion device located within the project limits.

The cost of providing the appropriate level of on-call staff for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(11/29/2017)

123. Emergency Response to Traffic Incident Involving Guardrail or EAT, Item SPV.0060.208.

A Description

This special provision describes providing prompt response to an emergency repair request involving a damaged guardrail or an Energy Absorbing Terminal (EAT) device on IH 39 or an IH 39 ramp that is damaged due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide appropriate staff to the incident site within 45 minutes of receiving a repair request from the responding agency. Staff deployed shall be capable of immediately assessing the severity of the damage to the device and consult with the department's representative on potential repair or replacement options and the projected timeline to restore the roadside device to its proper working condition. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff within 45 minutes of receiving a repair request, the department will assess the contractor $2500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted 45-minute response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

For contractor owned devices, repair work shall be completed according to standard spec 614, and as directed by the engineer. For state-owned devices, repair work is covered under articles Repair State Owned Guardrail and Repair State Owned EAT of these special provisions. In either case, once repair work has been started, work shall continue until completion. Repair work shall be completed off the traveled way to the maximum extent allowable.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Guardrail or EAT as each individual response, 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.0060.208	Emergency Response to Traffic Incident Involving Guardrail or EAT	EACH

Payment is full compensation for providing a prompt staff response to an emergency repair request for a damaged guardrail or an EAT located within the project limits.

The cost of providing the appropriate level of on-call staff for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(11/29/2017)

124. Repair State Owned Crash Cushion, Item SPV.0060.209.

A Description

This special provision describes providing emergency repair services, including the replacement of unusable components or hardware, for state owned crash cushions located on IH 39 or an IH 39 ramp that are damaged due to a vehicular collision during the time this contract is in effect. This work shall be according to standard spec 614, as directed by the engineer, and as hereinafter provided. Repair of a state owned low maintenance crash cushion is covered under a separate bid item. Responding to the incident site with the appropriate staff, equipment and materials is covered under a separate bid item.

B Materials

Conform to standard spec 614.

C Construction

Repairs shall be completed as quickly as possible once repair work is started. Repair work shall be completed off of the traveled way to the maximum extent possible.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the engineer.

D Measurement

The department will measure Repair State Owned Crash Cushion by the each individual unit, acceptably repaired.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.209	Repair State Owned Crash Cushion	EACH

Payment is full compensation for completing the necessary repair work to restore the state owned crash cushion to a safe and operational condition, including replacement of damaged, unusable components.

The department will pay for additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(10/24/2017)

125. Repair State Owned Crash Cushion Low Maintenance, Item SPV.0060.210.

A Description

This special provision describes providing emergency repair services to a state owned low maintenance crash cushion located on IH 39 or an IH 39 ramp that becomes compressed/damaged due to a vehicular collision during the time this contract is in effect. This work shall be according to standard spec 614, as

directed by the engineer, and as hereinafter provided. Responding to the incident site with the appropriate staff, equipment and materials is covered under a separate bid item.

B Materials

Conform to standard spec 614.

C Construction

Repairs shall be completed as quickly as possible once repair work is started. Repair work shall be completed off of the traveled way to the maximum extent possible.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the engineer.

D Measurement

The department will measure Repair State Owned Crash Cushion Low Maintenance by the each individual unit, acceptably repaired.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.210	Repair State Owned Crash Cushion Low Maintenance	EACH

Payment is full compensation for completing the necessary repair work to restore the state owned low maintenance crash cushion to a safe and operational condition.

The department will pay for additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(10/24/2017)

126. Repair State Owned Energy Absorbing Terminal (EAT), Item SPV.0060.211; Repair State Owned Guardrail, Item SPV.0090.208.

A Description

This special provision describes providing emergency repair services, including the replacement of unusable components or hardware, for state owned energy absorbing terminals or guardrail located on IH 39 or an IH 39 ramp that is damaged due to a vehicular collision during the time this contract is in effect. This work shall be according to standard spec 614, as directed by the engineer, and as hereinafter provided. Responding to the incident site with the appropriate staff, equipment and materials is covered under a separate bid item.

B Materials

Conform to standard spec 614.

C Construction

Repairs shall be completed as quickly as possible once repair work is started. Repair work shall be completed off of the traveled way to the maximum extent possible.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the engineer.

D Measurement

The department will measure Repair State Owned Energy Absorbing Terminal (EAT) as each individual unit, acceptably repaired. The department will measure Repair State Owned Guardrail by the linear foot, acceptably repaired.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.211	Repair State Owned Energy Absorbing Terminal (EAT)	EACH
SPV.0090.208	Repair State Owned Guardrail	LF

Payment is full compensation for completing the necessary repair work to restore the state owned semi-rigid barrier system to a safe and operational condition, including replacement of damaged, unusable hardware.

The department will pay for additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(10/24/2017)

127. Roadway Cleanup, Item SPV.0060.212.

A Description

This special provision describes removing trash, tires and other debris from the IH 39 roadway during bi-directional traffic operations.

B (Vacant)

C Construction

Roadway cleanup will be scheduled by the department to occur on a once per month basis. For months with holiday work restrictions, the cleanup will be scheduled to occur immediately prior to the holiday break. The cleanup will occur on a weeknight, Tuesday through Thursday, during the time from 12:00 AM to 5:00 AM.

Traffic control for roadway cleanup will be provided by the department with the assistance of the Wisconsin State Patrol. A rolling slowdown will be used for traffic control. The necessary advanced signing and law enforcement personnel will be required to be on site prior to and during the rolling slowdown operation. Arrangements for implementing a rolling slowdown on IH 39 will be made by Jeff Gustafson at the Southwest Region Madison Office. (608) 516-6400. A rolling slowdown will only be allowed in one direction (northbound or southbound) at a time. Concurrent northbound and southbound rolling slowdowns will not be allowed. A northbound rolling slowdown will occur immediately following a southbound rolling slowdown, or vice versa, to complete the roadway cleanup loop (both northbound and southbound) for the project length.

Provide personnel and equipment capable of retrieving and transporting all types of roadway debris from the travel lanes and shoulders. Temporary precast concrete barrier will be present on the left side and may be present on the right side (outside). All debris shall be removed from the roadway and shoulder areas within the concrete barriers. If no concrete barrier is located on the outside, the debris removal area shall be extended to include the construction clear zone.

D Measurement

The department will measure Roadway Cleanup as each individual unit, acceptably completed, which includes both directions of the roadway (northbound and southbound) for the project's length of bi-directional traffic.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.212	Roadway Cleanup	EACH

Payment is full compensation for Payment is full compensation for providing personnel and equipment to remove debris from the traffic lanes and shoulders for both directions (northbound and southbound) of IH 39, and disposal of collected debris.

(10/16/2017)

128. Remove Existing Lighting Control, Item SPV.0060.350.

A Description

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

B (Vacant)

C Construction

Contact Matt Gosline at (608) 755-3160 at the City of Janesville Public Works Engineering Department 14 days prior to removing existing control cabinets.

Arrange with the utility for a disconnection of the existing electrical service lateral and removal of the meter housing. Removal of electrical services shall be paid for under a separate bid item.

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

D Measurement

The department will measure Remove Existing Lighting Control 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.0060.350	Removing Existing Lighting Control	EACH

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

129. Salvage Street Light, Item SPV.0060.351.

A Description

This special provision describes removing and salvaging a base mounted light pole, transformer bases, arm(s) and luminaire(s).

B (Vacant)

C Construction

Contact the appropriate personnel (as noted in *Street Lighting and Traffic Signal Systems – General Provisions* article) at least 7 days prior to removing any street lights on City of Janesville lighting systems. Coordinate with city staff to identify the following information:

- Identify all items to be salvaged or disposed.
- Identify existing feed-point locations and circuit breaks.

When removing existing street lights, carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. Protect luminaires from moisture. Make equipment available for pick up. Properly dispose of any equipment that is not salvaged.

Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged piece. Removal of existing luminaires and internal wiring shall be considered incidental to this item when the plans and quantities indicate replacement.

D Measurement

The department will measure Salvage Street Light 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.0060.351	Salvage Street Light	EACH

Payment is full compensation for removals, salvage, stockpile and/or disposal as required above.

130. Removing Anchor Bolt Cover Shrouds, Item SPV.0060.352.

A Description

This special provision describes removing anchor bolt cover shrouds from existing concrete bases.

B (Vacant)

C Construction

Remove and dispose of anchor bolt cover shrouds from existing concrete bases, prior to installing light poles.

D Measurement

The department will measure Removing Anchor Bolt Cover Shrouds by each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.352	Removing Anchor Bolt Cover Shrouds	EACH

Payment is full compensation for removing cover shrouds and disposing of all materials.

131. Double Lighting Cabinet Base, Item SPV.0060.353.

A Description

This special provision describes construction of a concrete base for use as a foundation for two lighting control cabinets.

B Materials

According to the plans and standard spec 654.2.

C Construction

According to the plans and standard spec 654.3 and as hereinafter provided.

This item includes measuring the cabinets to ensure proper sizing and location of electrical conduit stubs. Provide verification and obtain approval from the engineer prior to pouring the base.

D Measurement

The department will measure Double Lighting 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:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.353	Double Lighting Cabinet Base	EACH

Payment is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts and washers; for bar steel reinforcement.

132. Remove Poles Wood, Item SPV.0060.401.

A Description

This special provision describes removing an existing wood pole and all attached equipment (that is not being salvaged or relocated by the project).

B Materials

Provide all tools and equipment necessary to remove the existing wood pole and all attached equipment (that is not being salvaged or relocated by the project).

C Construction

Carefully remove the existing wood pole and all attached equipment (that is not being salvaged or relocated by the project) at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement

The department will measure Remove Poles Wood as each individual wood pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.401	Remove Poles Wood	EACH

Payment is full compensation for removing the wood pole and all attached equipment (that is not being salvaged or relocated by the project).

133. Remove Poles Type 5, Item SPV.0060.402.

A Description

This special provision describes removing an existing type 5 pole and all attached equipment (that is not being salvaged or relocated by the project).

B Materials

Provide all tools and equipment necessary to remove the existing type 5 pole and all attached equipment (that is not being salvaged or relocated by the project).

C Construction

Carefully remove the existing type 5 pole and all attached equipment (that is not being salvaged or relocated by the project) at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement

The department will measure Remove Poles Type 5 as each individual type 5 pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.402	Remove Poles Type 5	EACH

Payment is full compensation for removing the type 5 pole and all attached equipment (that is not being salvaged or relocated by the project).

134. Remove ITS Cabinet, Item SPV.0060.403.

A Description

This special provision describes removing an existing ITS cabinet and all attached equipment (that is not being salvaged or relocated by the project).

B Materials

Provide all tools and equipment necessary to remove the existing ITS cabinet and all attached equipment (that is not being salvaged or relocated by the project).

C Construction

Carefully remove the existing ITS cabinet and all attached equipment (that is not being salvaged or relocated by the project) at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement

The department will measure Remove ITS Cabinet as each individual ITS 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.0060.403	Remove ITS Cabinet	EACH

Payment is full compensation for removing the ITS cabinet and all attached equipment (that is not being salvaged or relocated by the project).

135. Remove Communication Vault, Item SPV.0060.404.

A Description

This special provision describes removing an existing communication vault and all attached equipment (that is not being salvaged or relocated by the project).

B Materials

Provide all tools and equipment necessary to remove the existing communication vault and all attached equipment (that is not being salvaged or relocated by the project).

C Construction

Carefully remove the existing communication vault and all attached equipment (that is not being salvaged or relocated by the project) at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement

The department will measure Remove Communication Vault as each individual communication vault, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.404	Remove Communication Vault	EACH

Payment is full compensation for removing the communication vault and all attached equipment (that is not being salvaged or relocated by the project).

136. Remove Electrical Service Meter Breaker Pedestal, Item SPV.0060.405.

A Description

This special provision describes removing an existing street lighting or traffic signal electrical service meter breaker pedestal, wiring, and all attached equipment, and restoring the site to match the surroundings.

B Materials

Provide all tools and equipment necessary to remove the existing electrical service meter breaker pedestal and all attached equipment (that is not being salvaged or relocated by the project).

C Construction

Coordinate with the local utility in advance of de-energizing the system. Carefully remove the existing electrical service meter breaker pedestal and all attached equipment (that is not being salvaged or relocated by the project) at the location indicated on the plans.

Dispose of removed materials off of department right-of-way.

D Measurement

The department will measure Remove Electrical Service Meter Breaker Pedestal as each individual electrical service meter breaker pedestal 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.0060.405	Remove Electrical Service Meter Breaker Pedestal	EACH

Payment is full compensation for removing the electrical service meter breaker pedestal and all attached equipment (that is not being salvaged or relocated by the project).

137. Install Wireless Mesh Radio Assembly, Item SPV.0060.406.

A Description

This special provision describes installing a wireless mesh radio assembly salvaged from the project.

B Materials

The wireless mesh radio assembly will be salvaged from the project.

Provide all necessary cables and connectors between the wireless mesh radio assembly and other devices.

C Construction

Install the wireless mesh radio assembly as shown in the plan. Configure and integrate the wireless mesh radio assembly to function as intended.

D Measurement

The department will measure Install Wireless Mesh Radio Assembly as each individual wireless mesh radio 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.0060.406	Install Wireless Mesh Radio Assembly	EACH

Payment is full compensation for salvaging, storing, installing a wireless mesh radio assembly; furnishing all necessary incidental hardware.

138. Poles Wood 65-FT, Item SPV.0060.407.

A Description

This special provision describes furnishing and installing a 65-foot wood pole.

B Materials

Furnish a Class II wood pole conforming to the American Standard Specifications and Dimensions for Wood Poles (ANSI 2051), unless otherwise specified by the engineer.

Treat the wood pole according to the requirements and recommendations of AWPA Standard C1 and the applicable AWPA Commodity Standards. Do not use Creosote for treatment.

C Construction

Install the wood pole with 13 feet of the pole length below ground or deeper as required by soil conditions.

Install all hardware according to the plans. Furnish and install ground rods, wiring, and other components per National Electric Code. Furnish and install all riser conduit and mounting hardware according to the plans.

D Measurement

The department will measure Poles Wood 65-FT as each individual 65-foot wood pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.407	Poles Wood 65-FT	EACH

Payment is full compensation furnishing and installing the wood pole, furnishing and installing all necessary hardware, and making all necessary connections.

139. ITS Communication Hub Building Concrete Base, Item SPV.0060.408.

A Description

This special provision includes construction of a concrete slab base for use as a foundation for the ITS communication hub building.

B Materials

All materials must meet the requirements of standard spec 654.

C Construction

Place 6 inches of 1 1/4-inch base aggregate as shown in the plans to fit the ITS communication hub building.

Construct the concrete slab base, including necessary hardware, as shown in the plans to fit the ITS communication hub building.

Mounting hardware shall be stainless steel and sized as shown in the details in the plans.

D Measurement

The department will measure ITS Communication Hub Building Concrete Base by the unit, acceptably constructed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.408	ITS Communication Hub Building Concrete Base	EACH

Payment is full compensation for constructing a new foundation including base aggregate, concrete, reinforcing steel, and mounting hardware; and for all labor, tools, and incidentals necessary to complete the work.

140. Install ITS Communication Hub Building, Item SPV.0060.409.

A Description

This special provision describes installing a department-furnished pre-manufactured communication hub building. This will include off-loading the building and storage of the building between delivery and installation; mounting the building on a concrete base (paid for separately); coring walls and/or ceiling for conduit installation, connecting to power source; and checking building systems for functionality.

B Materials

ITS Communication Hub Building will be built by Thermobond Buildings of Elk Point, South Dakota, furnished by the department and will be nominally 12-feet wide by 16-feet long by 10-feet high.

C Construction

Coordinate with the engineer to schedule a delivery date and location for the ITS Communication Hub Building. Within 2 months of notice to proceed with the contract, notify the engineer of the anticipated desired delivery date and the address for delivery. Once the initial schedule and location is submitted to the engineer, the engineer will provide contact information to the vendor and more detailed delivery arrangements may be coordinated with the vendor.

Upon delivery of the building, the contractor may request an inspection with the engineer to document any damage to the building prior to accepting it for installation. Once the building is delivered and accepted, any damage discovered will be the contractor's responsibility and must be repaired at no expense to the department. The security of the building will also be the responsibility of the contractor while it is being stored prior to installation, and until the work has been formally accepted by the engineer.

Install the building on the concrete base (paid for separately) using hardware as shown in the manufacturer's instruction and as shown in the plans.

Connect the building to utility power and the generator (paid for separately) through the automatic transfer switch (paid for separately) following the manufacturer's instructions and meeting all applicable electrical codes and building codes.

Install two concrete bollards outside of the door to the ITS Communication Hub Building, 4-feet from the face of the building and spaced 4-feet apart.

Integration of the ITS Communication Hub Building will be performed by others.

D Measurement

The department will measure Install ITS Communication Hub Building by the unit, acceptably installed, connected, and with all systems functional.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.409	Install ITS Communication Hub Building	EACH

Payment is full compensation for installing the building on the new foundation; for connecting to power; for coring into the floor and/or walls for conduit installation; for concrete bollards; and for completing all work necessary to make the hub building functional.

141. 19-Inch Equipment Rack, Item SPV.0060.410.

A Description

This special provision describes furnishing, installing, and connecting a 19-inch communications equipment rack in the ITS Communication Hub Building, as shown on the plans, or as directed by the engineer.

B Materials

Furnish 19" EIA equipment rack meeting or exceeding the following minimum requirements:

- Made to accommodate standard 19-inch rack mount equipment
- 45 rack spaces
- Dimensions of 84-inches high, 20.3-inches wide, and 6-inches deep
- UL listed for 1,000 lbs load
- Double-sided #12-24 EIA universal mounting hole spacing
- Must include (24) #12-24 mounting screws for future use
- Must include paint piercing washers intended to electrically bond equipment to the rack for simplified grounding.

C Construction

Install the equipment rack in the ITS Communication Hub Building as shown in the plans and as directed by the engineer. Follow all manufacturer's instructions for installation.

Thread the furnished mounting screws in the holes in the rack and leave them for future use.

D Measurement

The department will measure 19-Inch Equipment Rack as each unit, acceptably delivered and 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.0060.410	19-Inch Equipment Rack	EACH

Payment is full compensation for furnishing, delivering, installing, and connecting a 19-inch communications equipment rack.

142. 19-Inch Server Rack, Item SPV.0060.411.

A Description

This special provision describes furnishing, installing, and connecting a 19-inch communications equipment rack in the ITS Communication Hub Building, as shown on the plans, or as directed by the engineer.

B Materials

Furnish 19-inch server style rack meeting or exceeding the following minimum requirements:

- Made to accommodate standard 19-inch rack mount servers and equipment
- 42 rack spaces
- Dimensions of no more than 80-inches high, 48-inches deep, and 24-inches wide
- Static loading capacity of at least 2000 lbs

- Must include removable lockable side panels
- Front and rear doors must be perforated and lockable
- Must include top and bottom cable exits
- Must include side and front stabilizers
- Must include baying kit hardware to bay multiple racks together

C Construction

Install the server rack in the ITS Communication Hub Building as shown in the plans and as directed by the engineer. Follow all manufacturer's instructions for installation.

D Measurement

The department will measure 19-Inch Server Rack as each unit, acceptably delivered, installed, and connected.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.411	19-Inch Server Rack	EACH

Payment is full compensation for furnishing, delivering, installing, and connecting a 19-inch server rack.

143. Cable Organizer Rack, Item SPV.0060.412.

A Description

This special provision describes furnishing, installing, and connecting a cable management rack in the ITS Communication Hub Building, as shown on the plans, or as directed by the engineer.

B Materials

Furnish a cable organizer rack capable of mounting to EIA racks to manage cables on the front and rear of the rack.

Organizer rack shall be molded plastic and consist of cable management fingers, or similar system, and pass through holes. The fingers shall be spaced so that the gaps between the fingers align with EIA rack spaces. The pass-through holes shall provide bend radius control and slots that can be used for securing of cable straps. The organizer shall include a dual hinged cover that can be opened to the left or right 110 degrees.

Cable organizer rack must be long enough to cover the entire height of the respective equipment rack.

C Construction

Mount the cable organizer racks to respective equipment racks following all manufacturer's instructions.

D Measurement

The department will measure Cable Organizer Rack as each unit, acceptably delivered, installed, and connected.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.412	Cable Organizer Rack	EACH

Payment is full compensation for furnishing, delivering, installing, and connecting a cable management rack.

144. Server Rack Uninterruptable Power Supply, Item SPV.0060.413.

A Description

This special provision describes furnishing, installing, connecting, and making operational a rack mounted Uninterruptable Power Supply (UPS) for ITS communications equipment.

B Materials

Furnish a UPS meeting or exceeding the following minimum requirements:

Power inputs and outputs:

- Minimum Configurable Power Capacity: 1980W / 2200 VA
- Output Voltage: 120 V
- Output Voltage Distortion: Less than 5% at full load
- Output frequency: 57 – 63 Hz for 60 Hz nominal
- Topology: Line Interactive
- Waveform Type: Sine wave
- Output Connections: (6) NEMA 5-15R and (2) NEMA 5-20R
- Input voltage: 120 V
- Input frequency: 50/60 Hz +/- 3 Hz (auto sensing)
- Input Connections: NEMA 5-20P
- Cord length: Minimum of 8-Feet
- Input voltage range for main operations: 82 – 143 V
- Input voltage adjustable range for mains operation: 75-154 V
- Battery: Leakproof, maintenance-free sealed lead-acid battery with suspended electrolyte
- Typical recharge time: 3 hours
- At 2000 W load, runtime shall be a minimum of 4 minutes

Communications and Management:

- Interface Port(s): USB and 10BASE-T Web/SNMP Management
- Multi-function LCD status and control console control panel
- Audible alarm indicating when running on battery power

Surge Protection and Filtering:

- 530 Joules surge energy rating
- Full time multi-pole noise filtering: 0.3% IEEE surge let-through: zero clamping response time: meets UL 1449

Physical:

- Maximum Height: 3.50 inches
- Maximum Width: 18.90 inches
- Maximum Depth: 26.89 inches
- 2U rack height
- Not to exceed 100.00 lbs

Environmental:

- Operating temperature between 32 and 104º F
- Operating relative humidity of 0–95%
- Audible noise at 3 feet from surface of unit not to exceed 45.00 dB

Regulatory Conformance:

- CSA, FCC Part 15 Class A, UL 1449, UL 1778

Manufacturer Warranty:

- 3 years repair or replace (excluding battery) and 2 years for battery

C Construction

Install one UPS in each of the server racks (paid for separately) in the ITS Communication Hub Building as shown in the plans or as directed by the engineer. Follow all manufacturer's instructions for installation.

D Measurement

The department will measure Server Rack Uninterruptable Power Supply as each unit, acceptably delivered, installed, connected and made operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.413	Server Rack Uninterruptable Power Supply	EACH

Payment is full compensation for furnishing, delivering, installing, connecting, and making operational a UPS for ITS communications equipment.

145. Equipment Rack Uninterruptable Power Supply, Item SPV.0060.414.

A Description

This special provision describes furnishing, installing, connecting, and making operational a rack mounted Uninterruptable Power Supply (UPS) for ITS communications gear.

B Materials

Furnish a UPS meeting or exceeding the following minimum requirements:

Power inputs and outputs:

- Minimum Configurable Power Capacity: 500W / 750 VA
- Output Voltage: 120 V
- Output Voltage Distortion: Less than 5% at full load
- Output frequency: 57 – 63 Hz for 60 Hz nominal
- Topology: Line Interactive
- Waveform Type: Sine wave
- Output Connections: (6) NEMA 5-15R
- Input voltage: 120 V
- Input frequency: 50/60 Hz +/- 3 Hz (auto sensing)
- Input Connections: NEMA 5-15P
- Cord length: Minimum of 8-Feet
- Input voltage range for main operations: 82 – 144 V
- Input voltage adjustable range for mains operation: 75-154 V
- Battery: Leakproof, maintenance-free sealed Lead-Acid battery with suspended electrolyte
- Typical recharge time: 3 hours
- At 500 W load, runtime shall be a minimum of 4 minutes

Communications and Management:

- Interface Port(s): USB and 10BASE-T Web/SNMP Management
- Multi-function LCD status and control console control panel
- Audible alarm indicating when running on battery power

Surge Protection and Filtering:

- 530 Joules surge energy rating
- Full time multi-pole noise filtering: 0.3% IEEE surge let-through: zero clamping response time: meets UL 1449

Physical:

- Maximum Height: 3.50 inches
- Maximum Width: 17.00 inches
- Maximum Depth: 16.00 inches
- 2U rack height
- Not to exceed 40.00 lbs

Environmental:

- Operating temperature between 32 and 104º F
- Operating relative humidity of 0 – 95%
- Audible noise at 3-feet from surface of unit not to exceed 45.00 dB

Regulatory Conformance:

- CSA, FCC Part 15 Class A, UL 1449, UL 1778

Manufacturer Warranty:

- 3 years repair or replace (excluding battery) and 2 years for battery

C Construction

Install one UPS in each of the equipment racks (paid for separately) in the ITS Communication Hub Building as shown in the plans or as directed by the engineer. Follow all manufacturer's instructions for installation.

D Measurement

The department will measure Server Rack Uninterruptable Power Supply as each unit, acceptably delivered, installed, connected and made operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.414	Equipment Rack Uninterruptable Power Supply	EACH

Payment is full compensation for furnishing, delivering, installing, connecting, and making operational a UPS for ITS communications equipment.

146. Electrical Power Transfer Switch, Item SPV.0060.415.

A Description

This special provision describes furnishing, installing, connecting, and making operational an Electrical Power Transfer Switch to automatically switch the power source of the ITS Communication Hub Building from utility power to generator power.

B Materials

Furnish automatic electrical power transfer switch meeting or exceeding the following minimum requirements:

- Must be rated for a 200-A 120 / 240 V single phase utility service.
- Must be a service entrance style transfer switch with a disconnect circuit breaker on the utility side.
- Must be fully interoperable with the ITS Communication Hub Building Generator (paid for separately).
- Fully automatic selection of power source (utility or generator) and automatic start-up of generator.
- UL listed.
- CSA certified.
- Must meet all applicable electrical codes.
- Must meet NEMA standard IC10-1993 for Automatic Transfer Switches.
- Enclosure must be corrosion resistant NEMA 3R enclosure approved for indoor or outdoor installation.
- Must include a status indicator for source availability and contactor position viewable without removing enclosure cover.
- Must include the ability to delay startup of selected loads to facilitate staggering start-ups of larger draw equipment such as air-conditioners.

Furnish any necessary conductors between the transfer switch and the generator and transfer switch and utility power source.

Furnish any necessary conduit and conduit fittings to facilitate connection of the transfer switch. Conduit and fittings shall be metallic and must meet the requirements of standard spec 652.

C Construction

Follow all manufacturer's instructions for installation of the transfer switch.

Mount the transfer switch in the ITS Communication Hub Building as shown in the plans or as directed by the engineer.

Connect the transfer switch to the generator and to the utility power per manufacturer's instructions.

D Measurement

The department will measure Electrical Power Transfer Switch as each unit, acceptably delivered, installed, connected and made operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.415	Electrical Power Transfer Switch	EACH

Payment is full compensation for furnishing, delivering, installing, connecting, and making operational an electrical power transfer switch.

147. ITS Communication Hub Building Generator, Item SPV.0060.416.

A Description

This special provision describes furnishing, installing, connecting, and making operational a natural gas powered generator for back-up power supply for the ITS Communication Hub Building.

B Materials

Furnish a natural gas powered electric power generator meeting the following minimum requirements:

- 1204/240 VAC single phase 60 Hz power output
- Minimum of 10 kW / kVA standby rating
- Must include a smart-battery charger to maintain proper battery charge while not in use

Generator must be fully interoperable with automatic transfer switch and other materials furnished with this contract to make a fully functional automatic back-up power system for the ITS Communication Hub Building.

Furnish and construct a pad or base for the generator. The pad or base may be pre-manufactured purpose built for the generator or it may be a cast in place concrete pad.

C Construction

Excavate an area of appropriate size to place the pre-manufactured pad or to pour the cast in place base and place the pad or pace such that it is level.

Bolt the generator to the pad or base following manufacturer’s instructions.

Coordinate a natural gas connection to the site.

Connect the generator to the ITS Communication Hub Building automatic transfer switch using appropriate sized conductors to meet all applicable electrical codes and generator manufacturer requirements.

Test the generator functionality and automatic starting on utility power failure and demonstrate proper functionality to the engineer.

D Measurement

The department will measure ITS Communication Hub Building Generator as each unit, acceptably delivered, installed, connected and made operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.416	ITS Communication Hub Building Generator	EACH

Payment is full compensation for furnishing, delivering, installing, connecting, and making operational a generator to serve as a back-up power supply for the ITS Communication Hub Building; and for coordinating a natural gas connection.

148. Salvage Radio, Item SPV.0060.417.

A Description

This special provision describes salvaging existing radios as indicated on the plans.

B Materials

Provide all tools and equipment necessary to salvage the existing ITS equipment.

C Construction

Prior to salvaging, the Field System Integrator must determine if the ITS equipment is fully functional. If any part of the ITS equipment is found to not meet original manufacturer's specifications, contact Kyle Hemp of the WisDOT SW Region at (608) 246-5367.

Carefully salvage the existing ITS equipment at the location indicated on the plans. Salvage all mounting hardware and cables/wires associated with the ITS equipment.

Reinstallation of the ITS equipment, as indicated on the plans or as directed by the engineer, including any new materials required (cables or mounting hardware for example) will be paid for under other bid items.

Deliver ITS equipment that will not be reinstalled to Dale Roth at the WisDOT SW Region, 2101 Wright Street, Madison, WI 53704 at a mutually agreed upon time during normal state office hours. Contact Dale Roth at (608) 516-6435 to coordinate delivery of equipment.

Storage of materials prior to reinstallation and/or delivery is the responsibility of the contractor and is incidental to this item.

Any materials which are damaged during the salvaging, delivery, or reinstallation process will be repaired or replaced at the expense of the contractor.

D Measurement

The department will measure Salvage Radio as each individual radio 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.0060.417	Salvage Radio	EACH

Payment is full compensation for salvaging the ITS equipment including delivery of salvaged ITS equipment that will not be reinstalled to the department.

149. Pull Box Non-Conductive 18x24-Inch, Item SPV.0060.450.

A Description

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

B Materials

Furnish pull boxes, frames, and lids made of non-conductive material. Pull boxes, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77 and from the department's approved products list.

C Construction

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

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

D Measurement

The department will measure Pull Box Non-Conductive (size) 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.0060.450	Pull Box Non-Conductive 18x42-Inch	EACH

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

150. Remove and Reinstall Solar-Powered Bluetooth Assembly, Item SPV.0060.451.

A Description

This special provision describes removing and reinstalling an existing solar-powered Bluetooth assembly as indicated on the plans.

B Materials

Provide all tools and equipment necessary to remove and reinstall the existing solar-powered Bluetooth sensor.

C Construction

Prior to relocating, the Field System Integrator must determine if the solar-powered Bluetooth sensor is fully functional. If any part of the solar-powered Bluetooth sensor is found to not meet original manufacturer's specifications, contact Kyle Hemp of the WisDOT SW Region at (608) 246-5367.

Carefully remove and reinstall the existing solar-powered Bluetooth sensor as indicated on the plans. Relocate all mounting hardware and cables/wires associated with the solar-powered Bluetooth sensor. Remount the antenna to maximize signal strength.

Reinstall and make operational the Bluetooth sensor within five days.

Storage of materials during the relocation process is the responsibility of the contractor and is incidental to this item.

Any materials are damaged during the relocation process shall be repaired or replaced at the expense of the contractor. Wood posts are to be considered as incidental to this assembly bid item.

D Measurement

The department will measure Remove and Reinstall Solar-Powered Bluetooth Assembly, completed according to the contract and accepted, as each individual unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.451	Remove and Reinstall Solar-Powered Bluetooth Assembly	EACH

Payment is full compensation for removing and reinstalling the solar-powered Bluetooth assembly.

151. Remove Existing Electrical Service, Item SPV.0060.452.

A Description

This special provision describes removing an existing ITS electrical service meter breaker pedestal, wiring, and all attached equipment, and restoring the site to match the surroundings.

B Materials

Provide all materials necessary to remove the in-place meter breaker pedestal and to restore the surroundings.

C Construction

Prior to removing the meter breaker pedestal, contact the Southwest Region Traffic Section, Graham Heitz, (608) 246-5362, for traffic signal services, and Kyle Hemp, (608) 246-5367, for ITS services; and contact the City of Janesville, Matt Gosline, (608) 755-3160, for City of Janesville traffic signal and lighting

services. Arrange for disconnection of the service lateral and salvaging/removal of the meter housing by the electrical utility.

After disconnection of the service lateral and salvaging/removal of the meter housing by the electrical utility, carefully remove the meter breaker pedestal including any base or foundation. Properly dispose of meter breaker pedestal components off right-of-way.

Backfill the removal site with material similar to surrounding material and match the surrounding grade.

D Measurement

The department will measure Remove Existing Electrical Service as each individual unit, acceptably 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.0060.452	Remove Existing Electrical Service	EACH

Payment is full compensation for removal, backfill, and disposal as required above to complete the contract work.

152. Install Cellular Modem, Item SPV.0060.453.

A Description

This special provision describes installing a wireless cellular modem and antenna and providing all necessary associated wiring.

B Materials

The department will furnish the wireless cellular modem and antenna. Provide all necessary cables between the wireless modem and device to be connected to it.

C Construction

Drill a hole in the new or existing cabinet to install the wireless modem antenna cable through. Mount the antenna on top of the cabinet and seal the hole with purpose-made waterproof sealing device such as a grommet or gasket.

Install the wireless modem in a new or existing field cabinet. Connect it to the antenna and to devices as shown on the plans, or as directed by the engineer.

D Measurement

The department will measure Install Cellular Modem 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.0060.453	Install Cellular Modem	EACH

Payment is full compensation for installation of the cellular modem assembly including antenna, furnishing and installing all necessary hardware, making all necessary connections, testing the cellular modem, and making the cellular modem fully operational.

153. Concrete Control Cabinet Bases Type 9 Special (Mod.), Item SPV.0060.454.

A Description

Work under this specification shall be done according to standard spec 654, construction plan detail, and these special provisions.

B Materials

Materials shall be according to standard spec 654.

C Construction

Construction shall be according to standard spec 654.

D Measurement

The department will measure Concrete Control Cabinet Bases Type 9 Special (Mod.) 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:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.454	Concrete Control Cabinet Bases Type 9 Special (Mod.)	EACH

Payment is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts, and washers; for bar steel reinforcement, if required; for excavating, backfilling, and disposing of surplus materials.

154. Concrete Base Type 1 Spread Footing, Item SPV.0060.455.

A Description

Work under this specification shall be done according to standard spec 654, contract plan detail, and these special provisions.

B Materials

Materials shall be according to standard spec 654.

C Construction

Construction shall be according to standard spec 654. Install spread footing bases only when approved by the engineer to avoid sub-surface conflicts.

D Measurement

The department will measure Concrete Control Base Type 1 Spread Footing 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:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.455	Concrete Base Type 1 Spread Footing	EACH

Payment is full compensation for coordinating with the engineer and impacted utility owners, providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts, and washers; for bar steel reinforcement, if required; for excavating, backfilling, and disposing of surplus materials.

155. Perennials, Feather Reed Grass (Karl Foerster), Container #1, Item SPV.0060.500; Perennials, Little Bluestem (Blue Heaven), Container #1, Item SPV.0060.501; Perennials, Prairie Dropseed (Tara), Container #1, Item SPV.0060.502.

A Description

This special provision describes furnishing and installing Perennials according to the applicable sections of standard spec 632, as shown on the plans, and as hereinafter provided.

B Materials

Provide Perennial (plant) complying with American Standard for Nursery Stock (ANSI Z60.1-2004) for type, shape, and height.

Provide plants 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.

C Construction

Place Planting Mixture according to the bid item Planting Mixture.

Compact the bottom of the hole to guard against settling. Tamp or water in as necessary to create a condition by which plants will not settle in the planting beds. Place the bottom of the root ball directly on the bottom of the hole.

D Measurement

The department will measure Perennials (plant) as each individual perennial, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.500	Perennials, Feather Reed Grass (Karl Foerster), Container #1	EACH
SPV.0060.501	Perennials, Little Bluestem (Blue Heaven), Container #1	EACH
SPV.0060.502	Perennials, Prairie Dropseed (Tara), Container #1	EACH

Payment is full compensation for providing, transporting, handling, storing, pruning, placing, and replacing plant materials; for laying out plantings and excavating all plant holes, salvaging topsoil, mixing, and backfilling; for providing and applying all required fertilizer, water, rodent protection, herbicides and anti-desiccant spray; for disposing of all excess and waste materials; and for all incidentals necessary to complete the contract work except that the department will pay for Planting Mixture separately.

156. Native Seed Surveillance and Care Cycles, Item SPV.0060.506.

A Description

This special provision describes the post-seeding monitoring, documentation, and care for the native seed planting areas.

A.1 Native Seed Establishment Period

The native seed surveillance and care period is from initial planting until December 15 of the succeeding year.

B Materials

B.1 Herbicides

Comply with the material requirements specified in the article Pre-Planting Vegetation Treatment.

C Construction

C.1 General

Proper care of native plants consists of weeding, re-seeding, and any other work necessary to maintain the native plants and promote continued establishment.

Remove any trash, debris, slurry, sediment, or other material deposited by wind, water, or other means in any of the native seeded areas.

C.2 Care Specialist

Provide one person, called the Care Specialist, responsible for the well-being of the native seed planting areas. Also provide any other personnel, vehicles, equipment, tools, and materials needed to carry out the Care Specialist's recommendations throughout the full term of the establishment period. The care specialist will do the following:

1. For each care cycle, perform surveillance and care of the native seed planting areas throughout the growing season to promote native seed growth. At least 14 days prior to planting, submit a native seed surveillance and care cycle schedule to the Corridor Vegetation Inspector. Use a department provided template. Provide schedule updates to the Corridor Vegetation Inspector as necessary.
2. After each visual inspection, but prior to executing the work for each care cycle, fill out the pertinent information required on the department provided worksheet "Native Seed Scouting Report". After all care activities have been completed for a care cycle, fill out the remainder of the same worksheet. Complete one worksheet per site per care cycle, sign the worksheet, and submit to the Corridor Vegetation Inspector.
3. Conduct a field assessment native plant survey during July or August for each seeding site. Fill out the department provided worksheet "Native Plant Survey" or an equivalent worksheet approved by the Corridor Vegetation Inspector. Complete one worksheet per site, sign the worksheet, and submit to the Corridor Vegetation Inspector.

4. Provide a final examination of the native seed planting sites by December 1 of the establishment period. Fill out the department provided worksheet “Final Assessment of Native Plantings”. Required attachments to be included with this submittal include but are not limited to: photos, a dominant native and non-native species list, written assessment of standard performance achievements, summary of management efforts for the year, summary of management recommendations for the following year, map showing each established native seed mix area, and a list of the established plant species in each area. Complete one worksheet per site, sign the worksheet, and submit to the Corridor Vegetation Inspector.
5. Follow the Performance Standards contained in this article.

C.3 Re-Seeding

If bare ground exceeds 10% of the native seeded area, re-seed all bare spots larger than 4-square feet. Re-seed all areas, at the earliest appropriate planting time. Areas to be re-seeded must be approved by the Corridor Vegetation Inspector before work begins.

C.4 Invasive Species and Weed Management

Identify and manage weeds within the Invasive Species and Weed Management Areas (including native seeding areas) shown in the plans. Common approaches to control invasive species and weeds within and near native prairie sites are described below. Submit other techniques to the Corridor Vegetation Inspector for approval.

Do not begin the process of undesirable weed control and eradication, using herbicides, until native plant establishment is at a point where the native plants can be readily recognized and identified. Other weed control methods may be applied earlier as appropriate.

C.4.1 Spot Herbicide Treatment

Spot treatment entails the use of an absorbent material that has been soaked in an appropriate selective herbicide to control undesirable weeds. Apply herbicide at appropriate concentration. Identify all weeds and prairie plants when not in flower.

C.4.2 Spray Herbicide Treatment

Select the appropriate herbicide for treating newly-emerging weeds. Spray weeds in the spring when emerging from the soil, and no more than 6 inches in height. Focus the herbicide application at the ground level to minimize drift onto nearby desirable species.

C.4.3 Inverted Cone Herbicide Treatment

Place a three- to four-inch diameter inverted cone over the sprayer nozzle by affixing it to the sprayer wand just above the point of attachment to the nozzle. The cone can be constructed by cutting off the narrow stem of a funnel so that only the cone remains. Remove the sprayer nozzle, and fit the inverted funnel cone over the sprayer wand. Reattach the sprayer nozzle so the cone sits just above it, and affix the cone onto the sprayer wand. Cover the unwanted vegetation with the cone and spray herbicide so that the drift is contained within the cone.

Treat undesirable cool season weeds such as Quackgrass, Kentucky Bluegrass, and Smooth Bromegrass by using grass-selective herbicides. Remove weeds in mid- to late fall after the warm season prairie grasses are dormant and the cool season weedy grasses are actively growing. Air temperature must be above 60º F to ensure satisfactory results. If the site contains significant components of cool season native grasses, obtain approval of the Corridor Vegetation Inspector before proceeding.

C.4.4 Mowing

During each growing season, defined as May 1 – October 1, mow the Invasive Species and Weed Management areas (including the native seeding areas) per the specifications below.

Mow when vegetation reaches a height of 12 inches. Set the mower height to 6 inches. Multiple mowing’s will be required.

Mowing should be timed to occur before any weeds produce viable seeds to prevent future weed infestations. Mowing will not be allowed if target weed species possess mature seeds. Coordinate the scheduling of all mowing’s with the Corridor Vegetation Inspector prior to performing this work.

Mowing should be performed only when soils are dry and not subject to rutting or compaction. Areas that are damaged by indiscriminate mowing shall be re-seeded at the expense of the contractor.

Selective mowing may be required once the native vegetation is established to reduce weed seed production. Mowing may not be possible in very wet areas.

Use a flail-type mower. Verify that the cut vegetation does not bury small seedlings with large clumps of plant debris. Remove all undesirable plant material from the landscape site. Mowing equipment shall be washed prior to using at project sites to minimize the spread of weedy species.

C.4.5 Mechanical Methods

Techniques include hoeing, cutting, girdling, and tilling.

C.4.6 Digging/Hand-pulling

Remove entire root to prevent re-sprouting. Use with small or young plants, sandy or loose soils, or when soils are damp.

C.5 Weedy Species

The following weedy species must be controlled in the Invasive Species and Weed Management areas as soon as they become evident/visible:

GRASSES

Common Name	**Scientific Name**
Tall Fescue	Festuca arundinacea
Reed Canary Grass	Phalaris arundinacea
Giant Reed Grass	Phragmites australis
Kentucky Bluegrass	Pro pratensis
Smooth Brome	Bromus inermis
Orchard Grass	Dactylis glomerata
Quackgrass	Elytrigia repens

BROADLEAF WEEDS

Common Name	**Scientific Name**
Perennial Pepperweed*	Lepidium latifolium
Japanese Knotweed	Polygonum cuspidatum or Fallopia japonica
Canada Goldenrod	Solidago canadensis
Canada Thistle*	Cirsium arvense
Crown Vetch*	Securigera varia
Field Bindweed*	Convolvulus arvensis
Horsenettle*	Solanum caroliniense
Leafy Spurge	Euphorbia esula
Wild Parsnip	Pastinaca sativa
White Sweet Clover	Melilotus alba
Yellow Sweet Clover	Melilotus officinale

**Denotes weeds that cannot be killed by Glyphosate and require the addition of the appropriate broadleaf herbicide to the glyphosate tank mix in the first herbicide treatment.*

C.6 Damages for Failing to Perform

If the Care Specialist fails to perform the surveillance or fails to perform the proper care for a period greater than 3 weeks, the department will assess daily damages in the amount of $2,070 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of this special provision remain incomplete.

C.7 Acceptance Of Native Seed Areas

The Corridor Vegetation Inspector will make a final inspection of the native seeding areas and accept those areas conforming to the following performance standards:

Native Seed Performance Standards

1. Native plants must be established, healthy, thriving, upright and green.
2. The seeded areas show signs of satisfactory germination and growth of at least 50% of the planted species at the end of the establishment period.
3. Proper surveillance and care of the native seed beds has occurred and documentation has been delivered to the department.

D Measurement

The department will measure Native Seed Surveillance and Care Cycles as each individual care cycle, acceptably completed. All native seed planting sites along the project are included in an individual care cycle.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.506	Native Seed Surveillance and Care Cycles	EACH

Payment is full compensation for providing a Care Specialist, inspecting and caring for the native plant sites, documenting site visits and care activities, identifying weeds for removal; furnishing and applying herbicide; re-applying herbicide as needed; mowing; hoeing; cutting; girdling; tilling; digging; hand-pulling; disposing of weeds off-site. Multiple mobilizations and work efforts at the same site will not be paid for separately.

The department will assess damages, as described in this specification, for failing to perform the required surveillance and care.

157. Delineator Post Steel Modified, Item SPV.0060.507.

A Description

This special provision describes furnishing an installing steel posts and attaching sign I56-50, 12”x18” to the post. The locations of the posts will be marked by the department and will be located at the native seed planting areas. Conform to the requirements of standard spec 633, the standard detail drawing, and the construction detail shown in the plans.

Providing sign is included in the bid item Signs Type II Reflective H.

B Materials

Conform to standard spec 633.

C Construction

Attach sign so message faces away from the native seed planting area.

D Measurement

The department will measure Delineator Post Steel Modified as each individual post, 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.0060.507	Delineator Post Steel Modified	EACH

Payment is full compensation for furnishing and installing posts; installing the sign on the posts.

158. Remove and Salvage Hydrant, Item SPV.0060.650.

A Description

This special provision describes removing and salvaging an existing fire hydrant as identified on the drawings.

B Materials

Furnish all materials necessary to complete the work according to Section 6.7 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

Remove hydrant according to Section 6.7.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Ensure hydrant valve is closed, and remove hydrant to not damage for salvage. Add thrust blocking and pipe restraint to valve or tee and existing lead as required to ensure valve or tee will not blow off.

Coordinate with Craig Thiesenhusen, (608) 755-3115, to arrange for delivery of removed materials at least one working day prior to completion of work.

D Measurement

The department will measure Remove and Salvage Hydrant 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.0060.650	Remove and Salvage Hydrant	EACH

Payment is full compensation for excavating, backfilling, restoring the site, and disposing of surplus materials; for disassembly, removal, storage, and delivery of the hydrant to the Janesville Water Utility; for securing and blocking existing valve or tee, for connecting to existing hydrant lead, and for removing existing hydrant valve and lead.

159. Hydrant, Item SPV.0060.651.

A Description

This special provision describes all work required to furnish and install a new water Hydrant according to Section 6.7 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish Hydrant according to Section 6.7.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. Hydrants shall be manufactured by the Waterous Company and shall be Model No. WB67-250 - Classic. Hydrants shall be yellow-coated; open left; and consist of two 2 1/2” National Standard Thread (NST) hose connections, one – 4 1/2” NST pumper connection, and #3A operating nuts. Bury depth shall be 7 feet.

C Construction

Install Hydrant according to Section 6.7.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure Hydrant 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.0060.651	Hydrant	EACH

Payment is full compensation for excavation, furnishing, and installing new hydrant, and for placement of bedding and backfill.

160. 6-Inch Gate Valve With Box, Item SPV.0060.652.

A Description

This special provision describes all work required to furnish and install a gate valve with box according to Section 6.3, 6.4 and 6.7 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish 6-Inch gate valves and boxes according to Section 6.3.1, 6.4.1 and 6.7.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. No tap valves are proposed under this item.

C Construction

Install 6-Inch gate valves and boxes according to Section 6.3.2, 6.4.2 and 6.7.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure 6-Inch Gate Valve With Box 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.0060.652	6-Inch Gate Valve With Box	EACH

Payment is full compensation for excavating, backfilling, making connections, bedding the valves, dewatering, compacting trenches, installing and removing all necessary sheeting and bracing, and for furnishing and installing gate valve with box.

161. 4-Foot Diameter Water Valve Vault, Item SPV.0060.653.

A Description

This special provision describes all work required to furnish and install a 4-Foot Diameter Water Valve Vault according to Section 6.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish 4-Foot Diameter Water Valve Vault according to Section 6.2.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

Install 4-Foot Diameter Water Valve Vault according to Section 6.2.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure 4-Foot Diameter Water Valve Vault 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.0060.653	4-Foot Diameter Water Valve Vault	EACH

Payment is full compensation for excavating, backfilling, making connections, bedding the structure, dewatering, compacting trenches, installing and removing all necessary sheeting and bracing, and for furnishing and installing water valve vault.

162. 12-Inch Gate Valve, Item SPV.0060.654.

A Description

This special provision describes all work required to furnish and install a gate valve according to Section 6.4 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish 12-Inch gate valves according to Section 6.4.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. No tap valves are proposed under this item.

C Construction

Install 12-Inch gate valves according to Section 6.4.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure 12-Inch Gate Valve 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.0060.654	12-Inch Gate Valve	EACH

Payment is full compensation for excavating, backfilling, making connections, bedding the valves, dewatering, compacting trenches, installing and removing all necessary sheeting and bracing, and for furnishing and installing gate valve.

163. Water Valve Vault Casting, Item SPV.0060.655.

A Description

This special provision describes all work required to furnish and install Water Valve Vault Casting according to Section 6.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish Water Valve Vault Casting according to Section 6.2.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Frame shall be model Neenah R-1710-NR with a Neenah N1090-1092 (WATER UTILITY) cover. Please note covers are a special product produced for City of Janesville.

Adjusting rings shall be either precast concrete or expanded polypropylene plastic (EPP).

C Construction

Install Water Valve Vault Casting according to Section 6.2.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure Water Valve Vault Casting 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.0060.655	Water Valve Vault Casting	EACH

Payment is full compensation for providing new frame and cover, adjusting rings, and all other required materials; and for installing and adjusting each cover.

164. Temporary Water Main Blowoff, Item SPV.0060.656.

A Description

This special provision describes all work required to furnish and install a temporary water main blowoff according to Section 6.8 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish Temporary Water Main Blowoff according to Section 6.8.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

No castings are required for the Temporary Water Main Blowoff.

C Construction

Install Temporary Water Main Blowoff according to Section 6.8.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure Temporary Water Main Blowoff 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.0060.656	Temporary Water Main Blowoff	EACH

Payment is full compensation for excavating, backfilling, restoring the site, and disposing of surplus materials; for pipe, fittings, valves; and for furnishing and installing temporary water main blowoff.

165. Water Main Cut-In Connection, Item SPV.0060.657.

A Description

This special provision describes all work required to provide a Water Main Cut-In Connection according to Section 6.5 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish Water Main Cut-In Connection according to Section 6.5.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

Complete Water Main Cut-In Connection according to Section 6.5.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure Water Main Cut-In Connection 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.0060.657	Water Main Cut-In Connection	EACH

Payment is full compensation for providing water main cut in connection.

166. Water Main Offset 16-Inch, Item SPV.0060.658; Water Main Offset 12-Inch, Item SPV.0060.659.

A Description

This special provision describes all work required for the required new main vertical offsets at locations where conflicts with existing utilities exist or are encountered during main installation.

B Materials

Supply Class 52 ductile pipe and fittings (including all bends, tees, sleeves, etc.), as specified in Section 6.5.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

Note and install any main offsets indicated on plans. These offsets shall achieve a minimum 24” vertical separation between the storm sewer and new mains and services, and also apply to connecting to existing mains at intersections. This separation applies to all storm crossings under or over new mains/services. Any offsets shall also comply with minimum vertical separation of 18” under or 6” over existing sanitary sewer. The work shall comply with section 4.10 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. The engineer must approve materials and installation of all offsets, along with any variance from vertical separation requirements.

D Measurement

The department will measure Water Main Offset (Inch) by each individual unit, acceptably completed. Specific offsets have been defined on the plans.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.658	Water Main Offset 16-Inch	EACH
SPV.0060.659	Water Main Offset 12-Inch	EACH

Payment is full compensation for furnishing all work described herein, and for which a separate bid item is not provided.

Payment for Water Main Offset (Inch) is full compensation for excavation, all offset materials, insulation, granular backfill, and miscellaneous items necessary for a complete offset installation.

167. Sanitary Manhole Chimney Seal, Item SPV.0060.660.

A Description

This special provision describes installing chimney seals on sanitary manholes adjusted or reconstructed within the project.

B Materials

Provide Cretex Specialty Products or Adaptor Inc. internal chimney seal, or City of Janesville approved equal.

C Construction

Install chimney seal according to manufacturer's recommendations, and the Standard Specifications for Sewer and Water Construction in Wisconsin.

D Measurement

The department will measure Sanitary Manhole Chimney Seal 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.0060.660	Sanitary Manhole Chimney Seal	EACH

Payment is full compensation for furnishing new chimney seal, including bands, hardware and all other required materials; and for installing each chimney seal.

168. Utility Line Opening, Item SPV.0060.661.

A Description

This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown in the plans or as directed by the engineer.

B (Vacant)

C Construction

Perform the excavation using hydro-vac excavation and in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

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

Approve and coordinate all utility line openings with the engineer. Notify the utility engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed.

D Measurement

The department will measure Utility Line Opening 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.0060.661	Utility Line Opening	EACH

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

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings shall not be considered part of our paid for under Utility Line Openings, but shall be considered separate and measured and paid for separately as removal items. Temporary pavement, concrete curb, gutter, and sidewalk items shall also be considered separate from Utility Line Openings and will be measured and paid for separately.

169. Adjusting Hydrant and Auxillary Valve Box, Item SPV.0060.662; Adjusting Water Valve Box, Item SPV.0060.663.

A Description

This special provision describes all work required to adjust existing hydrant, auxiliary valve box, and water valve box according to Section 6.7 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish hydrant, auxiliary valve box and water valve box extensions according to Section 6.7.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

Adjust hydrant, auxiliary valve box and water valve box to specified elevations as noted on plans according to Section 6.7.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement

The department will measure Adjusting Hydrant and Auxiliary Valve Box and Adjusting Water Valve Box 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.0060.662	Adjusting Hydrant and Auxiliary Valve Box	EACH
SPV.0060.663	Adjusting Water Valve Box	EACH

Payment is full compensation for furnishing and installing hydrant and valve box extensions.

170. Junction Boxes 4 x 4 x 4-Inch, Item SPV.0060.700.

A Description

This work shall be according to the requirements of standard spec 653, the plans, standard detail drawings, and as hereinafter provided.

B Materials

According to the plans and standard spec 653.2.2, Junction Boxes.

C Construction

According to the plans and standard spec 653.3.

D Measurement

The department will measure Junction Boxes 4 x 4 x 4-Inch 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.0060.700	Junction Boxes 4 x 4 x 4-Inch	EACH

Payment is full compensation according to standard spec 653.5.

171. Decorative Medallion, Item SPV.0060.850.

A Description

Construct a decorative concrete masonry medallion on the retaining wall using a form liner, as shown on the plans and hereinafter provided.

B Materials

The City of Janesville will supply the decorative medallion form liner. Contact city Engineering Manager Mike Payne at (608) 755-3160.

The contractor, at contractor expense, is responsible for having the form liner repaired or replaced by the manufacturer if any damage to the form liner occurs while in the contractor's possession.

C Construction

Construct the decorative medallion as shown on the plans.

Protect form liner from dirt and debris until needed on work site.

Attach the form liner to the wall panel forms according to the manufacturer's installation instructions.

The limits of the form liner shall be on a single concrete wall panel and no wall panel joints shall be located within the limits of the decorative medallion.

After the form liner use is complete, clean and return the form liner to the City of Janesville.

D Measurement

The department will measure Decorative Medallion as each individual decorative medallion 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.0060.850	Decorative Medallion	EACH

Payment is full compensation for installing and removing the form liner, protecting the form liner from dirt and debris, cleaning the form liner, and for returning the form liner to the City of Janesville.

The department will pay separately for the square footage of “Wall Concrete Panel Mechanically Stabilized Earth” that encompasses the medallion surface area.

172. Medallion Concrete Staining, Item SPV.0060.851.

A Description

This special provision describes furnishing and applying a concrete stain to the exposed concrete formlined medallion surface on the medallion located on retaining walls, as detailed in the plans and/or directed by the engineer 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 according 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. Use the following products, or equal, as approved by the department:

Tri-Sheen Concrete Surfacer, Smooth by TK Products
Tri-Sheen Acrylic by TK Products
TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products
Safe-Cure and 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 according 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 as given in 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, so 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 according 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 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 formlined concrete medallion surface until this work can begin without receiving damage due to other construction operations. Provide temporary covering protection from overspray or splatter.

C.4 Test Areas

Prior to applying stain to the structure, perform test applications on sample panels that measure a minimum of 48-inches x 48-inches and are constructed to demonstrate workmanship in the use of the form liner specified on the structure. Prior to staining, allow the concrete to cure for the stain manufacturer's minimum recommended curing time or 28 days, whichever is greater. Submit color samples to the department prior to staining the sample panels. Prepare the concrete surfaces of the

sample panels and apply stain using the same materials and same manner as proposed for the structure. Do not apply stain to the structure until the department and the City of Janesville approve the test panels.

C.5 Surfaces to be Coated

Apply stain color to the specific area of the formlined concrete medallion surface as shown on the plans and/or as directed by the engineer.

D Measurement

The department will measure Medallion Concrete Staining as each individual medallion concrete 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
SPV.0060.851	Medallion Concrete Staining	EACH

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

173. Standpipe System, Item SPV.0060.852.

A Description

This special provision describes furnishing and installing a dry standpipe water delivery system on designated structures as shown on the plans and as specified herein.

B Materials

Furnish steel pipe conforming to standard spec 506.2.3.6 with a nominal inner diameter of 5-inches.

Furnish carbon steel Schedule 80 pipe meeting all requirement of ASTM A53 B with a nominal inner diameter of 5-inches. The pipe shall be rated for a minimum of 1000 pounds per square inch of working pressure at 400º F.

Furnish pre-manufactured bends and couplings as required by the plans. The bends and couplings shall be rated for a minimum of 700 pounds per square inch of working pressure.

Furnish Storz couplings with locking caps as required by the plans. The Storz couplings shall be rated for a minimum of 700 pounds per square inch of working pressure. Locking caps for the Storz couplings shall all be keyed alike for the IH 39 project.

Steel pipe, bends, and couplings shall be painted with a corrosion resistant paint that is resistant to acids, alkalies, solvents, salts, and water. The paint color shall match federal color 30372 and shall be able to be field applied depending on temperature. Paint shall be of one component and shall not require mixing of multiple components and shall be applicable by brushing, dipping, rolling, or spraying.

Furnish stainless steel or carbon steel anchoring components for all anchor brackets, clamps, fittings, etc., necessary for anchoring the steel standpipe to the structure. Stainless steel anchoring components shall conform to standard spec. 513.2.4. Carbon steel anchoring components shall conform to ASTM A709, Grade 36 and shall be blast cleaned and zinc coated according to ASTM A123. Post installed anchor rods shall conform to standard spec. 502.2.12.

C Construction

C.1 General

Install the pipe, bends, expansion devices and connectors on designated structures and in the locations shown in the plans.

Design, furnish and install a pipe anchoring system to adequately anchor the standpipes to the designated structures. Attach anchor assemblies for vertical pipe runs located along retaining walls, bridge abutments and bridge parapets using engineer-approved adhesive anchors. Space anchor assemblies along the length of pipe runs a maximum of 8 feet or as required to adequately anchor the pipe assuming it is completely filled with water and pressurized. Post installed anchor rods shall be installed according to standard spec 502.3.14.

C.2 Painting

Submit material cut sheets, as required in these special provisions, for the paint to be applied for approval prior to applying to any materials.

Apply paint following all manufacturer recommendations for material preparation. Paint may be applied prior to delivering materials to project area. If paint is applied in project area, all manufacturer recommendations, including those regarding temperature and drying time must be observed. Upon final installation of the pipe, bends, and fittings, all materials must be touched up wherever paint has chipped or cracked.

C.3 Shop Drawings

Prepare and submit shop drawings of the entire dry standpipe system to the engineer according to standard spec 105.2.

C.4 Testing

Test the completed installed system for water tightness to 200 pounds per square inch using a pressurized hydrostatic water test per NFPA 25. The system will be deemed acceptable if no leak is present after being pressurized for 2 hours. The testing must be witnessed by someone from the Fire Prevention Bureau. Contact the Janesville Fire Marshal, Sue North, (608) 751-2809, a minimum of 10 days prior to testing.

If the system does have a leak within the 2 hour test, the contractor must locate and remedy all leaks and retest until an acceptable test result is obtained. If required, the cost of repairs to satisfy the pressurized hydrostatic water test are included in the pay item and will be at no additional cost to the department nor will any request for contract time extension as a result of time delays for repairs and additional tests be granted.

D Measurement

The department will measure Standpipe System as each individual standpipe 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.0060.852	Standpipe System	EACH

Payment is full compensation for furnishing and installing Standpipe System; furnishing and installing steel pipe, all connectors bends, and Storz couplings with locking cap; designing, furnishing and installing pipe anchor brackets and anchor rods; pressurized hydrostatic water acceptance testing; shop drawing preparation and submittal; and for terminating and connecting the pipe to fittings; and for technical assistance by the manufacturer.

174. Maintenance Doors, Item SPV.0060.900.

A Description

This special provision describes designing, furnishing and installing the maintenance doors as shown on the plans and as hereinafter provided.

B Materials

B.1 Hardware

The maintenance door and associated material indicated will consist of the following:

a. Maintenance door framing shall be 4’ X 7’ hollow structural section conforming to ASTM A500, Grade B.

b. The door panel shall have similar noise reducing properties, and shall have the same formliner pattern aesthetic treatment as the noise barrier panels to provide a seamless transition from the noise barrier panels to the maintenance doors.

c. Hinges shall provide sufficient width to permit the door to swing 180° and be flush bearing design. Fabricate door hinges from pipes conforming to ASTM A53, Grade B, and pins conforming to ASTM A36.

d. Provide adjustable tension rods of ASTM A36, where required, to ensure doors are square.

e. Access through the door shall be from the highway side of the noise barrier only.

f. The door shall be latched with a long slide bolt placed 32 ½" above the bottom of the door to the centerline of the bolt on the highway side only and provided with a large handle on both sides to ease the opening of the door.

g. The door latch shall be able to accept a padlock to lock the door in the future. The door is not to be locked during construction.

h. All hardware for the maintenance doors shall be weather resistant to corrosion.

i. Hot-dip galvanize all steel components of the door according to ASTM A123.

B.2 Design

The design of the maintenance door shall be supplied by the pre-qualified single-sided absorptive noise barrier vendor.

Provide the name of the selected system to the engineer within 25 days after the award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and prior to beginning design of the noise barrier maintenance door. The suppliers of the noise barrier components shall attend this meeting.

B.3 Painting

The final color of the maintenance door shall match the noise barrier panels.

C Construction

Doors and frames for Maintenance Doors shall be installed according to the approved shop drawings.

The finish hardware shall be installed according to the manufacture's installation instructions.

The integrity of the sound barrier continuity, including the maintenance door, shall be such that no light passes through any vertical or horizontal joint in the system, or between the system and the ground.

D Measurement

The department will measure Maintenance Doors by each individual unit in place, 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.0060.900	Maintenance Doors	EACH

Payment is full compensation for designing, furnishing and installing the maintenance door; and for furnishing and installing connections to noise walls.

175. Anchor Assemblies Noise Barrier Structures, Item SPV.0060.901.

A Description

This special provision describes furnishing and installing anchor bolt assemblies for noise barriers that will be installed on retaining walls as shown on the plans, and as hereinafter provided.

B Materials

Anchor bolts shall be of size and spacing as given on the plans and conform to AASHTO M 314 GR 55. Provide heavy hex nuts conforming to AASHTO M 292 and hardened washers conforming to AASHTO M 293. Provide embedded anchor plates for anchor assemblies as shown on the plans conforming to AASHTO M 223. Provide five nuts and washers per anchor bolt.

Hot dip galvanize the entire anchor assembly. Galvanize embedded anchor plates conforming to AASHTO M 111 and galvanize anchor bolts, nuts and washers conforming to AASHTO M 232. Provide enlarged threads on nuts for proper fit after galvanizing.

C Construction

Install embedded anchor assemblies in concrete structures at locations as shown on the plans. Mount anchor assemblies to formwork or otherwise provide positive support of anchor assembly within formwork as necessary to prevent movement, shifting or misalignment of the anchor assembly during subsequent concrete placement. Protect or clean exposed anchor bolt threads from concrete splatter.

Coordinate location and spacing of anchor assemblies embedded in retaining walls for mounting noise barriers on retaining walls with approved noise barrier shop drawings.

D Measurement

The department will measure Anchor Assemblies Noise Barriers 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
SPV.0060.901	Anchor Assemblies Noise Barrier Structures	EACH

Payment is full compensation for furnishing and installing the anchorages.

176. Street Sweeping, Item SPV.0075.001.

A Description

This special provision describes removing small dirt and dust particles from the roadway using a street sweeper prior to shifting traffic to new locations and periodically during the project as directed by the engineer.

B Materials

Provide a mechanical, vacuum-assisted or regenerative street sweeper capable of collecting debris within an enclosed collection bin or hopper and disposing of the debris.

C Construction

Remove debris from the roadway using the street sweeper periodically during the project as directed by the engineer.

Provide logged hours or street sweeping to the engineer for approval on a weekly basis.

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.0075.001	Street Sweeping	HRS

Payment is full compensation for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work. All street sweeping due to the contractor's hauling and construction operations is considered incidental to the contract.

177. Construction Site Maintenance - Mowing, Item SPV.0075.002.

A Description

This special provision describes maintaining the project site by keeping the site clean and mowing all turf areas within the project limits for the duration of the project.

B (Vacant)

C Construction

Mow all turf areas within the project limits, whether existing turf or established by temporary seed, permanent seed, or sod, for the duration of the project.

Set the mower equipment height to cut turf to a 3-inch height. Mow turf areas when the height of turf growth is at a maximum height of 6 inches.

Furnish, install, maintain and remove traffic control signage for advance notice of mowing operations adjacent to live lanes of traffic.

D Measurement

The department will measure Construction Site Maintenance – Mowing by the hour that the mowing equipment is in use on the project, 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.0075.002	Construction Site Maintenance – Mowing	HRS

Payment is full compensation for monitoring the turf height within the project limits; for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work; and for furnishing, installing, maintaining and removing traffic control signage.

178. Seeding Native Mix N1, Item SPV.0085.509; Seeding Native Mix N2, Item SPV.0085.510; Seeding Native Mix N3, Item SPV.0085.511; Seeding Native Mix N4, Item SPV.0085.512.

A Description

This special provision describes furnishing and sowing the required native seed mix on areas shown in the plans.

B Materials

B.1 Native Seed

B.1.1 Lableing

Each native seed species will be packaged separately for each seed mixture. Packages for each species shall document seed test and date, mix composition, and the following information:

1. Scientific name of genus and species (subspecies and variety as necessary)
2. Guarantee that seeds are true to species
3. Bulk Weight
4. PLS Weight
5. Percent PLS
6. Year of harvest and any specialized treatments that have been applied to ensure or enhance germination
7. Seed Origin (geographical location)
8. Seed supplier contact information including company name, address, phone number, and contact person’s name and e-mail address
9. Percent Weed Seed
10. Noxious Weeds Found

Provide copies of shipment and certification paperwork to the Corridor Vegetation Inspector before the native seed mixtures arrive at the landscaping site.

B.1.2 Purity and Germination

Seed lots with testing data over 12-months old will be rejected. Seed tests shall be provided for each individual seed lot, with the following required information:

1. Seed Origin and Source
2. Crop Year
3. Date of Seed Test
4. % Purity
5. % Germination
6. % Inert Material
7. % Other Crop Seed and Other Crop Species
8. % Weed Seed (as allowed per standards of the Wisconsin Crop Improvement Association)
9. Noxious Weeds Found (none allowable)

No seed lots containing Wisconsin Noxious Weeds will be approved for native prairie plantings, as per the list of noxious weed species identified by the Wisconsin Crop Improvement Association, https://wcia.wisc.edu/2015Standards09102015.pdf.

B.1.3 Inoculation

All legume seeds shall be inoculated with fresh Rhizobium bacteria of the appropriate strain for each legume species prior to seeding.

B.1.4 Storing Seed

Store any seed delivered before use in a way that protects it from damage by heat, moisture, rodents, or other causes. Discard and replace, at no cost to the department, any previously tested and accepted seed that becomes damaged. Seed should not be stored on site more than seven days.

B.1.5 Native Seed Mixtures

The following Native Seed Mixtures will be used within the native seed planting areas, dependent on soil and moisture conditions:

MIX N1 - NATIVE PRAIRIE SEED MIX – DRY SOILS
Sun Conditions: Full sun to one-half day full sun
Suitable Soil Moisture Conditions: Dry to dry-mesic soils
Suitable Soil Types: Well-drained sand and loamy sand

MIX N2 - NATIVE PRAIRIE SEED MIX – MESIC SOILS
Sun Conditions: Full sun to one-half day full sun
Suitable Soil Moisture Conditions: Mesic to wet-mesic soils
Suitable Soil Types: Well-drained sandy loam, loam, silt loam, clay loam

MIX N3 – WET PRAIRIE NATIVE SEED MIX
Sun Conditions: Full sun to one-half day sun
Suitable Soil Moisture Conditions: Wet-mesic to wet soils
Suitable Soil Types: Moist loamy sand, sandy loam, loam, silt loam, clay loam

MIX N4 - INFILTRATION AREA NATIVE SEED MIX FOR SANDY SOILS
Sun Conditions: Full sun to one-half day full sun
Suitable Soil Moisture Conditions: Wet-mesic to wet soils
Suitable Soil Types: Well-draining sand-based engineered soils

The appropriate mix for each landscaping site is identified in the plans. The seed mixtures shall be composed of seeds of the proportions, by weight, listed in Table 1 below.

Table 1 – Native Seed Mixtures

			Mix N1	Mix N2	Mix N3	Mix N4
	Species	**Common Name**	PLS Oz/Acre	PLS Oz/Acre	PLS Oz/Acre	PLS Oz/Acre
Forbs	Agastache foeniculum	Lavender Hyssop	1.0	1.0		1.0
	Allium cernuum	Nodding Pink Onion		8.0		4.0
	Amorpha canescens	Leadplant	2.0			
	Asclepias incarnata	Marsh Milkweed		12.0	12.0	10.0
	Asclepias syriaca	Common Milkweed	4.0	5.0	9.0	6.0
	Asclepias tuberosa	Butterflyweed	12.0			
	Aster azureus	Sky Blue Aster	2.0	2.0		
	Aster laevis	Smooth Aster	2.0	2.0		
	Aster novae-angliae	New England Aster		2.0	3.0	2.0
	Aster ptarmicoides	White Aster	1.0			
	Astragalus canadensis	Canada Milkvetch	2.0			
	Baptisia alba	White Wild Indigo		8.0	9.0	6.0
	Coreopsis lanceolata	Lanceleaf Coreopsis	3.0			
	Dalea candida	White Prairie Clover	8.0			
	Dalea purpurea	Purple Prairie Clover	12.0			
	Echinacea purpurea	Purple Coneflower		8.0		
	Eryngium yuccifolium	Rattlesnake Master		8.0		
	Eupatorium maculatum	Spotted Joe Pye Weed			3.0	4.0
	Eupatorium perfoliatum	Boneset			1.5	2.0
	Helenium autumnale	Sneezeweed			1.5	2.0
	Helianthus pauciflorus	Showy Sunflower	1.0			
	Heliopsis helianthoides	Ox Eye Sunflower	2.0	3.0	4.5	5.0
	Lespedeza capitata	Roundhead Bushclover	6.0			
	Liatris aspera	Rough Blazingstar	8.0			
	Liatris pycnostachya	Prairie Blazingstar		8.0	9.0	16.0
	Liatris spicata	Marsh Blazingstar			9.0	
	Lobelia siphilitica	Great Blue Lobelia			1.5	
	Lupinus perennis	Wild Lupine	16.0			
	Monarda fistulosa	Bergamot	1.0	1.0	1.5	1.0
	Monarda punctata	Dotted Mint	1.0			
	Penstemon digitalis	Smooth Penstemon		2.0		
	Penstemon grandiflorus	Beardtongue	8.0			
	Ratibida pinnata	Yellow Coneflower	4.0	5.0	7.5	4.0
	Rudbeckia hirta	Black Eyed Susan	4.0	4.0	6.0	4.0
	Rudbeckia laciniata	Green Headed Coneflower			4.5	
	Rudbeckia subtomentosa	Sweet Black Eyed Susan		2.0	3.0	3.0
	Rudbeckia triloba	Brown Eyed Susan	2.0	2.0		3.0
	Senna hebecarpa	Wild Senna		6.0		7.0
	Siphium integrifolium	Rosinweed	1.0			1.0
	Silphium laciniatum	Compassplant	5.0	6.0		
	Silphium terebinthinaceum	Prairie Dock		4.0	12.0	6.0
	Solidago rigida	Stiff Goldenrod	1.0	1.0	1.5	1.0

Table 1 – Native Seed Mixtures

	Species	Common Name	Mix N1 PLS Oz/Acre	Mix N2 PLS Oz/Acre	Mix N3 PLS Oz/Acre	Mix N4 PLS Oz/Acre
	Solidago speciosa	Showy Goldenrod	1.0			
	Tradescantia ohiensis	Ohio Spiderwort	8.0	6.0		6.0
	Verbena hastata	Blue Vervain		1.0	1.5	2.0
	Verbena stricta	Hoary Vervain	2.0			
	Vernonia fasciculata	Ironweed		4.0		4.0
	Veronicastrum virginicum	Culver's Root		1.0		
	Zizia aurea	Golden Alexanders		8.0	7.5	8.0
		Sub Total:	**120.0**	**120.0**	**108.0**	**108.0**

Table 1 – Native Seed Mixtures

	Species	Common Name	Mix N1 PLS Oz/Acre	Mix N2 PLS Oz/Acre	Mix N3 PLS Oz/Acre	Mix N4 PLS Oz/Acre
Graminoids	Andropogon gerardii	Big Bluestem	4.0	4.0	6.0	4.0
	Bouteloua curtipendula	Side Oats Grama	30.0	30.0		
	Bromus ciliatus	Fringed Brome			24.0	16.0
	Carex bebbii	Bebb's Sedge			6.0	6.0
	Carex stipata	Awl Fruited Sedge			6.0	6.0
	Carex vulpinoidea	Brown Fox Sedge			6.0	6.0
	Sporobolus heterolepis	Prairie Dropseed	12.0			
	Elymus canadensis	Canada Wild Rye	32.0	32.0		32.0
	Elymus virginicus	Virginia Wild Rye			66.0	32.0
	Glyceria striata	Fowl Manna Grass			4.5	
	Panicum virgatum	Switchgrass	2.0	2.0		4.0
	Schizachyrium scoparium	Little Bluestem	32.0	32.0		16.0
	Scirpus atrovirens	Dark Green Bulrush			6.0	
	Scirpus cyperinus	Woolgrass			4.5	
	Sorghastrum nutans	Indiangrass	8.0	8.0		8.0
	Spartina pectinata	Prairie Cordgrass			3.0	2.0
	Sporobolus heterolepis	Prairie Dropseed		12.0		
		Sub Total:	**120.0**	**120.0**	**132.0**	**132.0**
		TOTAL:	**240.0**	**240.0**	**240.0**	**240.0**

Table 1 – Native Seed Mixtures

			Mix N1	Mix N2	Mix N3	Mix N4
	Substitute Species					
Substitute Forbs	Anemone canadensis	Canada Anemone		X		
	Anemone cylindrica	Thimbleweed	X			
	Astragalus canadensis	Canada Milkvetch		X		
	Aster Ptarmicoides	White Aster	X			
	Aster puniceus	Swamp Aster			X	X
	Baptisia bracteata	Cream False Indigo	X			
	Ceanothus americanus	New Jersey Tea	X			
	Euphorbia corollata	Flowering Spurge	X			
	Gentiana andrewsii	Bottle Gentian			X	
	Helianthus occidentalis	Western Sunflower	X	X		
	Iris shrevei	Wild Iris			X	X
	Kuhnia eupatorioides	False Boneset	X			
	Mimulus ringens	Monkey Flower			X	X
	Pycnanthemum virginianum	Mountain Mint			X	X
	Ruellia humilis	Wild Petunia	X			
	Senna hebecarpa	Wild Senna			X	
	Solidago ohioensis	Ohio Goldenrod			X	X
	Solidago riddellii	Riddell's Goldenrod			X	X
	Solidago speciosa	Showy Goldenrod		X		
	Thalictrum dasycarpum	Purple Meadow Rue			X	X
	Vernonia fasciculata	Ironweed			X	
	Veronicastrum virginicum	Culver's Root			X	X
	Zizi Aurea	Golden Alexanders		X		
Substitut	Bromus kalmii	Kalm’s Bromegrass	X			
	Calamagrostis canadensis	Canada Blue Joint Grass		X	X	X

Table 1 – Native Seed Mixtures

		Mix N1	Mix N2	Mix N3	Mix N4
Substitute Species					
Carex bicknellii	Copper Shouldered Oval Sedge	X			
Carex crinita	Fringed Sedge		X	X	X
Carex scoparia	Lance-Fruited Sedge		X	X	X
Danthonia spicata	Poverty Oats Grass	X			
Elymus trachycaulus	Slender Wheatgrass	X	X		

Verify and inspect individual seed species at the grower's nursery, the place of collection, or at the collector's holding site. Recommend the seed lots for mixture. Seed lots must be approved by the Corridor Vegetation Inspector prior to blending any seed. Verify and inspect the final mixtures and recommend the mixtures to the Corridor Vegetation Inspector for approval. Inform Corridor Vegetation Inspector of any concerns with the seed prior to sowing.

Furnish copies of seed bag tags and/or seed tests results for each seed lot, performed by a certified seed testing lab to the Corridor Vegetation Inspector.

All seed shall be Pure Live Seed (PLS) and originating and obtained from Wisconsin, Minnesota, Eastern Iowa or Northern Illinois nurseries, specializing in growing native species from Upper Midwestern genotypes in Zone 5a or lower of the US Agricultural Research Service, Plant Hardiness Zone Map, Miscellaneous Publication Vol. No. 1475, Issued January 1990, Updated January 24, 2012, http://planthardiness.ars.usda.gov/PHZMWeb/

Ensure that all seed used is cold, dry stratified.

If a listed species is not available, substitutions may be made from the alternative seed species listed in Table 1 under Substitute Species for each of the seed mixtures. Before using an alternate, provide documentation showing that a required species is not available to the Corridor Vegetation Inspector. Obtain substitution approval from the Corridor Vegetation Inspector prior to ordering substitute seed.

If substitutions in a seed mix are made, maintain the forbs to graminoids ratios and numbers of species counts listed in Table 2. The weight of any item substituted cannot be more than twice or less than half by weight, in comparison to the item it is replacing. All substitutions are to be approved by the Corridor Vegetation Inspector.

Table 2 – Table of Minimum Requirements for Native Seed mixtures

	% Forbs by Weight	% Graminoids by Weight	# of Forbs	# of Graminoids	# of Total Prairie Species per Mix
Mix N1 – Native Prairie Seed Mix – Dry Soils	50	50	28	7	35
Mix N2 – Native Prairie Seed Mix – Mesic Soils	50	50	27	7	34
Mix N3 – Wet Prairie Native Seed Mix	45	55	20	10	30
Mix N4 – Infiltration Area Native Seed Mix for Sandy Soils	45	55	24	11	35

C Construction

C.1 Seed Bed Inspection

Prior to seeding, obtain concurrence from the Corridor Vegetation Inspector that the existing topsoil is adequate in terms of quality, as further described in the Seed Bed Preparation article.

The Corridor Vegetation Inspector will review the site by evaluating seed beds for proper weed control and soil condition prior to authorizing contractor to proceed with seeding. Additional seed bed preparation, as authorized by the Corridor Vegetation Inspector, will be paid for under the Seed Bed Preparation bid item.

C.2 Vegetation Eradication

Pre-planting herbicide treatment is described in the Pre-Planting Vegetation Treatment article.

If little or no perennial vegetation is present on the site, the Corridor Vegetation Inspector may approve a truncated site preparation process at his/her discretion.

The Corridor Vegetation Inspector will have sole authority in determining when the seed bed has been properly prepared for seeding.

C.3 Seeding Methods and Timing

Three seeding methods are approved for sowing the Native Seed Mixtures:

1. No-till prairie seed rills.
2. Broadcast roller seeders.
3. Pull behind broadcast seeders that can be calibrated to seed prairies at the appropriate low rates per acre.

No-till seed drills shall be set up to handle the flow characteristics and calibration requirements for the proper distribution of prairie flower and grass seeds. The seed bed must be graded to extremely smooth conditions for no-till drill to work properly, with the maximum variation in soil elevations of no more than one-half inch in height. The no-till seeder should be set so that the seed is placed only one-quarter inch deep in the soil. Any micro-variations in topography will result in the seed being planted either too deeply so that it will not germinate, or is dropped onto the surface of the soil rather than being deposited into the soil itself.

Broadcast roller seeders require a freshly worked up seed bed in order to be effective. The soil must be loose, with maximum variation in soil elevation of no more than 4 inches in height prior to using a broadcast roller seeder.

Pull-behind broadcast seeders also require a freshly prepared seed bed for success. The soil must be loose, with a maximum variation in soil elevation of no more than 1 inch. The site must be dragged smooth and rolled with a cultipacker immediately following seeding.

Hydro-seeding is not an approved method for seeding native prairies and shall not be used for this purpose.

All native seeding shall be fall dormant seeding, unless otherwise approved by the Corridor Vegetation Inspector. Sow seed between November 1 to the time when the soil is frozen. Planting may occur on partially frozen soil if the seed makes good contact with the soil at time of planting. The Corridor Vegetation Inspector must approve seeding on partially frozen soil.

C.4 Seeding Rates

Use the following sowing rate for native seeding:

Native Seed Mixtures at 15.0 pounds/acre

The entire native seeding area shall be seeded with the equipment set at one-half the designated rate. Then the entire site shall be seed again with the remaining seed and with the equipment traveling in a direction perpendicular to the first seeding. On small areas the entire amount of seed may be sown in one direction at the discretion of the Corridor Vegetation inspector.

C.5 Erosion Control

Place Erosion Mat Class I Type B over Soil Stabilizer Type B on native seeding areas only where directed by the Corridor Vegetation Inspector.

Place Seeding Mixture No. 30 and Fertilizer, Type A on areas within the Invasive Species and Weed Management limits that are not seeded with a native seed mix.

C.6 Seed Establishment Period

The work necessary during the establishment period is described in the Native Seeding Surveillance and Care Cycle article.

D Measurement

The department will measure Seeding Native Mix (mixture) by the pound, 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.0085.509	Seeding Native Mix N1	LB
SPV.0085.510	Seeding Native Mix N2	LB
SPV.0085.511	Seeding Native Mix N3	LB
SPV.0085.512	Seeding Native Mix N4	LB

Payment is full compensation for providing, inspecting, handling and storing seed; for providing the required culture and inoculating seed as specified; for removing foreign and deleterious objects, construction materials, and stones from the seed bed, sowing, covering and firming the seed.

Seed bed preparation that involves working up the topsoil will be paid for under the Seed Bed Preparation bid item.

Pre-planting herbicide treatment will be paid for under the Pre-Planting Vegetation Treatment bid item.

Erosion Control items will be paid for, as necessary, under the respective standard bid items.

Seeding Mixture No. 30 and Fertilizer Type A will be paid for, as necessary, under the respective bid items.

Follow-up care during the establishment period will be paid for under the Native Seed Surveillance and Care Cycles bid tiem.

179. Concrete Curb & Gutter 30-Inch Type K Special, Item SPV.0090.001; Concrete Curb & Gutter 30-Inch Type L Special, Item SPV.0090.002; Concrete Curb & Gutter Integral 30-Inch Type K Special, Item SPV.0090.007.

A Description

This item shall be according to the pertinent requirements of standard spec 601 and shall conform to the construction detail shown in the plans.

B Materials

The concrete curb and gutter shall be according to the pertinent materials of standard spec 601.

C Construction

Perform work according to standard spec 601.

D Measurement

The department will measure Concrete Curb and Gutter (Type) by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Concrete Curb and Gutter 30-Inch Type K Special	LF
SPV.0090.002	Concrete Curb and Gutter 30-Inch Type L Special	LF
SPV.0090.007	Concrete Curb and Gutter Integral 30-Inch Type K Special	LF

Payment is full compensation for excavating and preparing the foundation; for providing all materials, including concrete, and expansion joints; placing, finishing, protecting and curing concrete; and for sawing joints.

180. Concrete Pavement Joint Sealing, Item SPV.0090.003.

A Description

This special provision provides for the sealing of the longitudinal joint located a distance, as shown on the plans, from the base of S42 and S42A concrete barrier only when this joint is created by a full-depth sawcut. Joint sealing shall consist of cleaning the joint in preparation for sealing and sealing the joint in the concrete pavement with a hot applied joint sealing material.

B Materials

All designated joints shall be sealed with a hot applied joint sealant conforming to the Specification for Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements, ASTM Designation D6690, type II. A Certification of Compliance shall be furnished to the engineer prior to application.

Sawed joints designated to be sealed under this bid item will not require Concrete Protective Surface Treatment as described in a separate article of these special provisions.

C Construction

The operation of sealing shall be performed as soon as practicable upon elapse of the curing period and in any event prior to the time traffic of any kind uses the pavement.

Joints shall not be sealed until they have been inspected and approved by the engineer.

Application of the joint sealer shall be made when the joint surfaces are clean and dry.

Immediately before sealing the joint, thoroughly clean the joints of all laitance, curing compound and other foreign material. Exposed joint faces shall be cleaned by sandblasting, or by water blasting with sufficient pressure to thoroughly and completely clean the joint. A multiple-pass technique shall be used until the surfaces are free of material that might prevent bonding. For final cleaning immediately prior to installation of the sealer, the joints shall be blown clean with oil-free compressed air. The joint faces must be surface dry when sealant is applied.

The sealing compound shall be heated to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. The heating kettle shall be equipped with a mechanical agitator, positive temperature control and an approved dial thermometer for checking temperatures of the compound. The heating kettle, if and when operated on concrete, shall be properly insulated against the radiation of heat to the concrete surface.

The sealing compound shall not be heated above the maximum safe heating temperature. The maximum safe heating temperature shall be determined from tests made on samples from each lot or shipment of the material delivered to the project. When so approved by the engineer, the manufacturer's recommended maximum safe heating temperature may be used in lieu of test determinations where relatively small quantities of sealer are used. Any material heated above the maximum safe heating temperature shall be discarded.

Pouring of joints shall be made when the sealing material is at the required temperature and, insofar as practicable, the sealing compound shall be maintained at a uniform temperature during pouring operations. Pouring shall not be permitted when the temperature of the sealing compound in the applicator, as it is applied to the joint, is more than 10° F below the recommended pouring temperature. Pouring of the molten sealer in the joint opening shall be done with such equipment that the sealer completely fills the joint opening without overflowing on the adjoining surface and when finished, after shrinkage, the sealer is approximately flush with the adjoining surfaces. In the event satisfactory sealing of a joint is not accomplished in a single pouring, the sealing compound shall be placed in two pours. At least one-half of the required amount shall be placed in the first pouring, and the second pouring shall follow the first as soon as practicable after the first pouring has attained maximum shrinkage but not later than one hour after the first pouring.

D Measurement

The department will measure Concrete Pavement Joint Sealing by the linear foot in place along the joint, 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.0090.003	Concrete Pavement Joint Sealing	LF

Payment is full compensation for cleaning the joint, and for furnishing and applying the joint sealant.

(1/31/2017)

181. Fence Chain Link Polymer-Coated 6-Foot Ground Mounted, Item SPV.0090.004.

A Description

This special provision describes furnishing and installing a polymer-coated chain link fence according to the pertinent requirements of standard spec 616 and as hereinafter provided. The color of all components in this fence system shall be the same and shall be as specified on the plans.

B Materials

The fence components shall be according to the pertinent materials of standard spec 616.

Provide polymer-coating over chain link fence components that conforms to the requirements of ASTM F626, F668, and F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

C Construction

Perform work according to standard spec 616.

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

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

D Measurement

The department will measure Fence Chain Link Polymer-Coated 6-Foot Ground Mounted by the linear foot, acceptably completed, measured from center to center of end posts along the top tension wire. The department will deduct for gates and other openings.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.004	Fence Chain Link Polymer-Coated 6-Foot Ground Mounted	LF

Payment is full compensation for fabricating, galvanizing and polymer-coating all fence components; clearing and grubbing the fence line; for excavating; for setting posts including placing concrete; for providing longer posts driven in unstable soils at no additional cost to the department; for erecting and tensioning all fencing components; for installing grounds; for any touch-ups and repairs; and for removing and disposing of all debris, excess excavation, and surplus materials.

182. Concrete Barrier Type S42 Turned Down End, Item SPV.0090.005.

A Description

This item shall be according to the pertinent requirements of standard spec 603 and shall conform to the construction detail shown in the plans.

B Materials

The concrete barrier shall be according to the pertinent materials of standard spec 603.

C Construction

Perform work according to standard spec 603.

D Measurement

The department will measure Concrete Barrier Type S42 Turned Down End 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.0090.005	Concrete Barrier Type S42 Turned Down End	LF

Payment shall be according to standard spec 603.5.2.

183. Marking Stop Line Epoxy 24-Inch, Item SPV.0090.006.

A Description

This item shall be according to the pertinent requirements of standard spec 646.

B Materials

Furnish pavement marking according to the pertinent materials of standard spec 646.

C Construction

Perform work according to standard spec 646.

D Measurement

The department will measure Marking Stop Line Epoxy 24-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.006	Marking Stop Line Epoxy 24-Inch	LF

Payment shall be according to standard spec 646.5.

184. Maint. and Removal of Concrete Barrier Temp Precast Left In Place, Item SPV.0090.201.

A Description

This special provision describes maintaining and removing concrete barrier temporary precast left in place by others according to standard spec 603. The concrete barrier temporary precast left in place by others becomes the property of the contractor upon notice to proceed.

B Materials

Furnish any replacement materials for the concrete barrier temporary precast left in place by others that is according to the pertinent requirements of standard spec 603.3.2.

C Construction

Maintain and remove the concrete barrier temporary precast according to the pertinent requirements of standard spec 603.3.

D Measurement

The department will measure Maint. and Removal of Concrete Barrier Temp. Precast Left In Place by the linear foot, acceptably completed, measured along the base of the barrier in its left-in-place location.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.201	Maint. and Removal of Concrete Barrier Temp. Precast Left In Place	LF

Payment is full compensation for maintaining and removing the concrete barrier temporary precast; and for removing and disposing of all materials.

Reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.

185. Traffic Control Gawk Screen Furnished, Item SPV.0090.202; Traffic Control Gawk Screen Installed, Item SPV.0090.203.

A Description

This special provision describes furnishing and installing traffic control gawk screen on concrete barrier as a traffic control device and removal upon completion of the project.

B Materials

Furnish rectangular shaped screen for temporary mounting on top of concrete barrier.

Furnish a polymer, polyethylene, or UV protected thermoplastic, or similar lightweight product that will not shatter when impacted and is proven crashworthy.

Submit shop drawings a minimum of two weeks prior to the proposed use of traffic control gawk screen.

Requirements:

- 24 inches in height;
- the same length as the concrete barrier on which it will be mounted, without splicing, except account for longitudinal overhang between the concrete barrier as shown in the plans;
- mounted with two poles, at the spacing shown in the plan, attached to the mounting plate with the mounting plate drilled into the top of the concrete barrier;
- secured with a chain and pin, or other approved method, to the mounting pole;
- capable of being securely connected to the adjacent screen section using polyethylene brackets, or similar approved fasteners, made of non-metallic materials;
- capable of expanding without buckling;
- capable of contracting without creating gaps in the screening and while remaining securely fastened to the adjacent screen;
- gray in color and opaque;
- has finished faces on both sides of the screen;
- capable of remaining in place from traffic gusts, wind gusts, and other outdoor elements that may move or displace the screen.

Furnish and install mounting pipe and hardware according to manufacturer/supplier directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

C Construction

Furnish and deliver traffic control gawk screen to worksites within the project. Install the screen according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as directed by the engineer at no additional cost. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer, at no additional cost.

Remove screen when no longer needed at the installation site, during winter when directed by the engineer, and upon project completion. In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department's approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Gawk Screen Furnished by the linear foot, acceptably delivered to the project site.

The department will measure Traffic Control Gawk Screen Installed by the linear foot, acceptably completed, measured along the base of the screen after installation for each contract-identified or engineer-directed initial installation. The department will also measure subsequent contract-identified or engineer-directed reinstallations. The department will not measure installations made solely to accommodate the contactor's means and methods.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.202	Traffic Control Gawk Screen Furnished	LF
SPV.0090.203	Traffic Control Gawk Screen Installed	LF

Payment for Traffic Control Gawk Screen Furnished is full compensation for furnishing traffic control screen, mounting posts, and mounting and fastening hardware; initial delivery; and storage until installation.

Payment for Traffic Control Gawk Screen Installed is full compensation for each installation; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

(5/31/2016)

186. Traffic Control Glare Screen Furnished, Item SPV.0090.204; Traffic Control Glare Screen Installed, Item SPV.0090.205.

A Description

This special provision describes furnishing and installing traffic control glare screen on concrete barrier as a traffic control device and removal upon completion of the project.

B Materials

Furnish polymeric or fiberglass; green or black; lightweight; traffic control glare screen from one of the following suppliers or approved equal:

- Carsonite Composites – Modular Guidance System
- Safe-Hit, A Division of Energy Absorption Systems, Inc. – Safe-Hit Glarescreen
- Flexstake Inc. – GS Series Glare Screen
- Plasticade® – Modular Glare Screen

Each screen section shall include blade paddles 24 inches in height, mounted at minimum 2-foot intervals on a continuous rail bolted to the top of the concrete barrier. The minimum 2-foot interval shall be maintained between sections of concrete barrier. Each paddle shall be capable of being removed individually by hand.

Furnish and install mounting hardware and glare screen according to manufacturer/ supplier directions.

C Construction

Furnish and deliver traffic control glare screen to worksites within the project. Install the glare screen according to manufacturer's recommendations at contract-identified locations or as the engineer directs.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as directed by the engineer at no additional cost. Replace any screen sections that have any material or installation failure, as determined by the engineer, at no additional cost.

Remove screen when no longer needed at the installation site, during winter when directed by the engineer, and upon project completion. In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department's approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Glare Screen Furnished by the linear foot, acceptably delivered to the project site.

The department will measure Traffic Control Glare Screen Installed by the linear foot, acceptably completed, measured along the base of the screen after installation for each contract-identified or engineer-directed initial installation. The department will also measure subsequent contract-identified or

engineer-directed reinstallations. The department will not measure installations made solely to accommodate the contactor's means and methods.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.204	Traffic Control Glare Screen Furnished	LF
SPV.0090.205	Traffic Control Glare Screen Installed	LF

Payment for Traffic Control Glare Screen Furnished is full compensation for furnishing traffic control screen, mounting posts, and mounting and fastening hardware; initial delivery; and storage until installation.

Payment for Traffic Control Glare Screen Installed is full compensation for each installation; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

(5/31/2016)

187. Concrete Barrier Temporary Precast Left In Place, Item SPV.0090.206.

A Description

This special provision describes leaving in place temporary precast reinforced concrete barrier conforming to the shape, dimensions, and details the plans show and according to the pertinent provisions of standard spec 603, these special provisions, and as hereinafter provided.

Concrete Barrier Temporary Precast Left In Place becomes the property of the department after final acceptance by the engineer.

Concrete Barrier Temporary Precast Left In Place shall have been manufactured within six months of its proposed placement at its left-in-place location on the project. Ownership identification shall include the department (DOT).

B Materials

Conform to standard spec 603.

C Construction

Conform to standard 603.

D Measurement

The department will measure Concrete Barrier Temporary Precast Left In Place by the linear foot, acceptably completed, measured along the base of the barrier after final installation in its left-in-place location.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.206	Concrete Barrier Temporary Precast Left In Place	LF

Payment is full compensation for leaving Concrete Barrier Temporary Precast on the project site.

Furnishing concrete barrier temporary, initial delivery, installation, reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.

(3/11/2016)

188. Repair State Owned Concrete Barrier Temporary Precast, Item SPV.0090.207.

A Description

This special provision describes providing emergency repair services to state owned concrete barrier temporary precast located on IH 39 or an IH 39 ramp that is knocked out of alignment or damaged due to a vehicular collision during the time this contract is in effect. Repair services may also include the

replacement of unsuitable sections of concrete barrier due to extensive damage sustained during a collision. This work shall be according to standard spec 603, as directed by the engineer, and as hereinafter provided. Responding to the incident site with the appropriate staff, equipment and materials is covered under a separate bid item.

B Materials

Conform to standard spec 603.

C Construction

Repairs shall be completed as quickly as possible once repair work is started. Repair work shall be completed off of the traveled way to the maximum extent possible.

D Measurement

The department will measure Repair State Owned Concrete Barrier Temporary Precast by the linear foot, acceptably repaired.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.207	Repair State Owned Concrete Barrier Temporary Precast	LF

Payment is full compensation for completing the necessary repair work to restore the state-owned barrier system to a safe and operational condition; including replacement of damaged, unusable units.

The department will pay for additional traffic control measures, if required, under the respective traffic control bid items in the contract.

(10/24/2017)

189. Removing Electrical Conductors from Existing Conduit, Item SPV.0090.350.

A Description

This special provision describes removing electrical conductors from existing conduit and disposing them off of the project site.

B (Vacant)

C Construction

Wires shall be removed from the existing underground conduits as shown on the plans and as directed by the engineer. The engineer shall verify the extent of the wiring removal prior to disconnecting luminaires. Any necessary splices or disconnections shall be done as part of this pay item. Removed wires shall become property of the contractor and shall be disposed of off the project site.

D Measurement

The department will measure Removing Electrical Conductors from Existing Conduit by linear feet of conduit from where wires shall be removed and disposed of, regardless of conductor quantity within conduit, acceptably completed. The vertical length and wire slack shall be incidental to this pay item.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.350	Removing Electrical Conductors from Existing Conduit	LF

Payment is full compensation for removing electrical wires from conduits and disposal of all removed materials.

190. Furnish and Install Equivalent Lighting Conductors, Item SPV.0090.351.

A Description

This special provision describes furnishing and installing electrical conductors to match existing street lighting circuits.

B Materials

Furnish electrical conductors equivalent to conductors in existing lighting circuits and incidentals according to the pertinent requirements of standard spec 655.2. Furnish various sizes/types of electrical conductors to match all existing systems within the project limits. All sizes and types of electrical conductors shall be paid under this bid item.

C Construction

Perform a pre-construction site assessment with the City of Janesville and the engineer for all areas where this item is used. The site assessment shall include written documentation of existing service points, circuiting patterns, number of conductors and the conductor size/type.

This item includes the removal and abandonment of any existing conductors which preclude the ability to run new conductors in existing conduit.

Install electrical conductors according to the pertinent requirements of standard spec 655.3.

D Measurement

The department will measure Furnish and Install Equivalent Lighting Conductors in length by the linear foot of tape, measured along the centerline of the conduit multiplied by the number of conductors used.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.351	Furnish and Install Equivalent Lighting Conductors	LF

Payment is full compensation for removing existing wire, and for providing new wire.

191. Install Cat-5e Cable, Item SPV.0090.450.

A Description

This special provision describes the transporting and installing of department furnished Cat-5e Cable.

B Materials

Pick up the department furnished Cat-5e cable at the department's electrical shop. Notify the Southwest Region Electrical Shop to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Furnish all other necessary materials (ethernet repeaters, connectors including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners) ensuring all materials are in compliance with the WisDOT Qualified Electrical Products List.

C Construction

Install all cables per the cable routing plan. Neatly coil a minimum of 15-feet of extra cable in the traffic signal cabinet. Provide an extra 6-foot loop of cable in each pull box and an extra 10-feet at the top of the wood pole.

Install the Cat-5e Cable from the video detection cameras and microwave detectors to the cabinet. All cable runs less than or equal to 330-feet shall be installed continuously (without splices) from the traffic signal cabinet to the units plus additional length for coils left in pull boxes or bases. Cable runs longer than 330-feet require an ethernet repeater; repeaters and furnishing and installing power cable for the repeater are to be incidental. Install the cable continuously (without splices) from the traffic signal cabinet to the pull box, or enclosure at top of wood pole. Install the repeater and install the cable continuously (without splices) from the repeater to the units.

All open field ends shall be taped and covered with a sealant according to standard specification 655.3.1. Terminate the ends of the cable and connect the cable to the video detection cameras and microwave detectors per the manufacturer's specifications. Install the contractor furnished ethernet repeaters per the manufacturer's specifications.

Install all required equipment and make all final connections in the traffic signal cabinet. Mark the cabinet end of the Camera Power Cable and Cat-5e Cable appropriately to indicate the equipment label (i.e. V1, MD-SB2, etc.) in the traffic signal control cabinet.

D Measurement

The department will measure Install Cat-5e Cable by the linear foot of cable, 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
SPV.0090.450	Install Cat-5e Cable	LF

Payment is full compensation for transporting and installing the Cat-5e Cable, for making all connections; for furnishing and installing all ethernet repeaters, power cables, and connectors, including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners; and for testing.

192. Fiber Optic Tracer Cable, Item SPV.0090.451.

A Description

This special provision describes furnishing and installing fiber optic tracer cable in all conduit containing fiber optic cable.

B Materials

Provide the tracer cable with a black insulation cover, No. 14 AWG, XLP, USE rated, 600 VAC, single conductor, copper wire.

C Construction

Install the tracer cable in all conduit containing fiber optic cable, running continuously through all pull boxes. Install the tracer cable to each control cabinet, but do not enter the cabinet. The tracer cable may be spliced only in pull boxes. Make splices only between full rolls of wire. For the cable splice use a Western Union Splice soldered with resin core flux. All exposed surfaces of the solder shall be smooth. Solder splices using a soldering iron. Cover the splice with a WCSMW 30/100 heat shrink tube, minimum length 4-inches, and with a minimum one-inch coverage over the XLP insulation, underwater grade.

D Measurement

The department will measure Fiber Optic Tracer Cable in length by the linear foot of cable, acceptably completed, measured along the centerline of the conduit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.451	Fiber Optic Tracer Cable	LF

Payment is full compensation for furnishing and installing the tracer cable; splicing; and for properly disposing of surplus materials.

193. Fiber Optic Warning Tape, Item SPV.0090.452.

A Description

This special provision describes furnishing and installing fiber optic warning tape above all conduit containing fiber optic cable. Warning tape will not be placed above conduit installed by directional bore.

B Materials

Provide underground warning mesh that is constructed of polypropylene and is fluorescent orange in color. Provide 6-inch detectable marking tape that has the words "Buried Fiber Optic Cable" and is orange in color.

C Construction

Lay underground warning mesh above all underground conduits installed by open trench, 12-inches below grade. The width of the warning mesh shall be the same as the width of the trench. Lay directly above the underground warning mesh, a 6-inch detectable marking tape that has the words "Buried Fiber Optic Cable" and is orange in color.

D Measurement

The department will measure Fiber Optic Warning Tape in length by the linear foot of tape, acceptably completed, measured along the centerline of the conduit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.452	Fiber Optic Warning Tape	LF

Payment is full compensation for furnishing and installing the marking tape and warning mesh; and for properly disposing of surplus materials.

194. 12-Inch Ductile Iron Water Main, Item SPV.0090.650; 6-Inch Ductile Iron Water Main, Item SPV.0090.651.

A Description

This special provision describes all work required to furnish and install Ductile Iron Water Main according to Section 6.5 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish all materials for Ductile Iron Water Main according to Section 6.5.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

C.1 General Construction Methods

Install Ductile Iron Water Main according to Section 6.5.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Janesville Water Utility, or designated engineering personnel must oversee the operation of all existing valves, unless noted to be removed and replaced under this contract, which will require closure as part of the associated installation work, prior to the start of work by the contractor. Notify affected residents of all service interruptions with proper 24 hour notice according to Section 6.1.4 of the City of Janesville Standard Specifications for Public Works Construction. Service interruptions to any businesses shall be coordinated with them a minimum 48 hours in advance.

Supply and install the pipe and necessary fittings (including properly blocked or restrained joints); and bed, cover and backfill, pressure test, and disinfect the new water pipe according to requirements of Section 6.5.2 of the City of Janesville Standard Specifications for Public Works Construction, unless modified below.

Uncover existing water main to which the new main is to be connected so as to allow for adjustment of line or grade to minimize use of fittings and avoid the need for extra fittings. At no time during construction shall a protective trench “shoe or box” be allowed to extend below the spring line of the water main pipe.

C.2 Testing

Fill all new water mains, pressure test, and secure an approved bacteria test, according to Section 6.10 of the city specifications, prior to allowing the new pipe to be connected to the existing water system unless there are valves located at the tie-in location, whereby the valves can be closed tight during the test period. The engineer must approve a testing plan from the contractor prior to start of the work. Prior to connection to existing mains, the interior of the new “end” valves and/or associated new connection couplings/fittings shall be thoroughly sprayed with a 25 mg/l chlorine solution to provide disinfection. Flush all new water mains prior to taking a sample for the bacteria test. All flushed water shall be tested as specified in Section 6.10.3 of the city specifications. Connections to existing pipes can be made after new main is completely tested (both pressure and bacteria tests) and accepted by the engineer.

Testing of all connections to existing water system will be by visual observance of leakage, by the engineer; at existing system pressure after main is placed back into service and prior to backfilling. Any leakage observed shall be repaired, as approved by the engineer, to completely stop any leakage.

Assure continuity between sleeved connections to existing/new mains (in same configuration as standard pipe joints), and the engineer must approve continuity on all sleeved connections. Continuity of the new main shall be tested by the contractor, with the engineer present, prior to placing main into service.

D Measurement

The department will measure (size) Ductile Iron Water Main by the linear foot, acceptably completed. This measurement equals the distance along the centerline of the pipe (including fittings and valves), from center to center of end structures or from center of end structure to the terminus of new pipe where no structure exists.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.650	12-Inch Ductile Iron Water Main	LF
SPV.0090.651	6-Inch Ductile Iron Water Main	LF

Payment is full compensation for furnishing all work described herein, and for which a separate bid item is not provided.

Payment includes trench excavation; supply and installation of new pipe; placement of bedding and cover materials; blocking; sheeting/shoring; making connections; anchoring pipe; placement and compaction of backfill; testing and disinfection of pipe/fittings; and other miscellaneous items necessary for a complete installation, and for which a separate bid item is not provided.

195. Removing Existing HP 10-Inch x 42 LB Piling, Item SPV.0090.700.

A Description

This special provision describes removing existing HP 10-inch x 42lb piling where they are in conflict with proposed new piling for abutments and piers. The work also includes backfilling the void left after removal with structure backfill. The purpose of this work is to clear the location so the proposed pile may be driven and installed without interference from an existing steel pile.

B (Vacant)

C Construction

Remove any existing steel piling that is in conflict with proposed piling locations. An existing steel pile is in conflict with a proposed pile if the steel pile is within 2.5 proposed-pile diameters (center-center spacing) of a proposed pile. One of the following methods of removal shall be used:

Direct Pull: Wrap piling with a choker cable or chain attached at the top to a crane. Pull the piling vertically, removing the piling from the soil.

Vibratory Excavation: Attach a vibratory hammer to a crane and to the existing piling. Vibrate the piling loose. Pull the piling vertically and remove the piling from the soil.

Contractor Proposed: The contractor may propose, in writing, an alternate method of pile removal.

When an existing pile is found to be in conflict with the proposed piling, the contractor shall notify the engineer, and receive his approval on the selected removal method prior to beginning any work to remove the steel piling.

Don’t remove the existing piling during proposed piling and other structural concrete operations.

Fill any void remaining after pile removal with structure backfill.

D Measurement

The department will measure Removing Existing HP 10-Inch x 42 LB Piling by the linear foot, acceptably completed. Measurement will be made along the vertical length of the steel piling 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.0090.700	Removing Existing HP 10-Inch x 42 LB Piling	LF

Payment is full compensation for removing existing steel piling; for providing and placing necessary structure backfill material; and for disposing of all material excavated.

196. Fence Chain Link Polymer-Coated 6-Ft., Item SPV.0090.850; Fence Chain Link Polymer-Coated 3-Ft., Item SPV.0090.851.

A Description

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

B Materials

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

B1 Fabric

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

B2 Framework

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

B3 Fittings

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

B4 Bolts

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

B5 Tests

B5.1 Fabric and Tie Wire

Breaking Strength: ASTM A370

Zinc-Coating Requirements

Weight of Zinc-Coating: ASTM A90

Polymer-Coating Requirements

Thickness of Polymer-Coating: ASTM F668

Adhesion: ASTM F668

Accelerated Aging Test: ASTM F668, D1499

Mandrel Bend Test: ASTM F668

B5.2 Framework

Tensile and Yield Strength: ASTM E8

Zinc-Coating Requirements

Weight of Zinc-Coating: ASTM A90

Polymer-Coating Requirements

Thickness of Polymer-Coating: ASTM E376

Adhesion: ASTM F1043

Accelerated Aging Test: ASTM F1043, D1499

B5.3 Fittings

Zinc-Coating Requirements

Weight of Zinc-Coating: ASTM A90

Polymer-Coating Requirements

Thickness of Polymer-Coating: ASTM F626

Adhesion: ASTM F1043 (same test as for framework)

Accelerated Aging Test: ASTM F1043, D1499 (same test as for framework)

B6 Submittals

In addition to the engineer, send submittals listed in this section to the name below for informational purposes:

David Nelson
WisDOT (Bureau of Structures)
4822 Madison Yards Way
4th Floor South
Madison, WI 53705

B6.1 Shop Drawings

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

B6.2 Specification Compliance

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

C Construction

C.1 Delivery, Storage and Handling

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall

repair or replace components as necessary to the approval of the engineer at no additional cost to the owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

C.2 Touch-up and Repair

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

C.3 General

Install the chain link fence (including access gates and underdeck light post components as detailed in the plans) according to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20-feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near ¼ point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement

The department will measure Fence Chain Link Polymer-Coated X-Ft. by the linear foot, satisfactorily furnished and 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.0090.850	Fence Chain Link Polymer-Coated 6-Ft.	LF
SPV.0090.851	Fence Chain Link Polymer-Coated 3-Ft.	LF

Payment is full compensation for fabricating, galvanizing and polymer-coating all fence components (including access gates and underdeck light post components as detailed in the plans), and transporting to jobsite; and for erecting components to create a polymer-coated fence system, including any touch-up and repairs.

197. Survey Project 1005-10-83, Item SPV.0105.001.

A Description

Modify standard spec 105.6 and 650 to define the requirements for construction staking for this contract.

Add the following to standard spec 105.6.1:

Horizontal and vertical control points, provided by the department, are generally at 1-mile intervals for horizontal control and at 1/2-mile intervals for vertical control. Control points will be provided in a hard copy and ASCII electronic format.

Replace standard spec 105.6.2 with the following:

The department will not perform any 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.

The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, pipe culverts, structure layout, pavement, barriers (temporary and permanent), electrical installations, supplemental control, slope stakes, ponds, ITS, FTMS, ramp gates, parking lots, utilities, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

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 according to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and construct all work under this contract.

D Measurement

The department will measure Survey Project (project ID) 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.0105.001	Survey Project 1005-10-83	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

(5/14/2013)

198. Survey Project 1005-10-77 with Optional AMG for Concrete Pavt and Base Course, Item SPV.0105.002; Survey Project 1005-10-87 with Optional AMG for Concrete Pavt and Base Course, Item SPV.0105.003; Survey Project 5569-00-71 with Optional AMG for Concrete Pavt and Base Course, Item SPV.0105.004.

A Description

Modify standard spec 105.6 and 650 to define the requirements for construction staking for this contract.

Add the following to standard spec 105.6.1:

Horizontal and vertical control points, provided by the department, are generally at 1-mile intervals for horizontal control and at ½-mile intervals for vertical control. Control points will be provided in a hard copy and ASCII electronic format.

Replace standard spec 105.6.2 with the following:

The department will not perform any 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.

The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, pipe culverts, structure layout, pavement, barriers (temporary and permanent), electrical installations, supplemental control, slope stakes, ponds, ITS, FTMS, ramp gates, parking lots, utilities, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

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 according to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and construct all work under this contract.

Replace standard spec 650.3.8 with the following:

650.3.8 Concrete Pavement

650.3.8.1 General

(1) Under the Construction Staking Concrete Pavement bid item the contractor may substitute automated machine guidance (AMG) for conventional staking on all or part of the concrete pavement and underlying base. The engineer may require the contractor to revert to conventional staking methods

for all or part of the work at any point during construction if, in the engineer's opinion, AMG is producing unacceptable results.

650.3.8.2 Conventional Concrete Pavement Staking

(1) Set construction stakes or marks at 25-foot intervals. Set and maintain additional stakes as necessary to establish location and grade along intersecting road radii; and for auxiliary lanes, vertical curves, horizontal curves, and curve transitions according to the plans. Locate stakes to within 0.02 feet horizontally and establish elevations to within 0.01 feet vertically. Set and maintain sufficient additional stakes at each cross-section to achieve the required accuracy and to support the method of operations.

650.3.8.3 Automated Machine Guidance for Concrete Pavement

650.3.8.3.1 General

(1) No base or paving stakes or stringlines are required for AMG work.

(2) Coordinate with the engineer throughout the course of construction to ensure that work performed using AMG conforms to the contract tolerances and that the methods employed conform to the contractor's AMG work plan and accepted industry standards. Address AMG issues at weekly progress meetings.

(3) Use a total station to provide station, offset, and elevations at locations specified in standard spec 650.3.8.3.5 and at additional engineer-directed locations after fine grading the base and after placing the concrete pavement. Allow the engineer access to view current display data on the contractor’s AMG equipment during paving and fine grading operations.

(4) Provide the department field staff up to 8 hours of formal training on contractor's AMG systems.

650.3.8.3.2 AMG Work Plan

(1) Submit a comprehensive written AMG work plan for department review at least five business days before beginning AMG work. The engineer will review the plan to determine if it conforms to the requirements of this special provision.

(2) Construct the base and concrete pavement as the contractor's AMG work plan provides. Update the plan as necessary during construction.

(3) The AMG work plan should discuss how AMG technology will be integrated into other technologies employed on the project. Include, but do not limit the contents to, the following:

1. Designate which portions of the contract will be done using AMG and which portions will be done using conventional staking.
2. Describe the manufacturer, model, and software version of the AMG equipment including the angular accuracy and the measurement frequency of the guidance system.
3. Provide information on the qualifications of contractor staff. Include formal training and field experience. Designate a single staff person as the primary contact for AMG technology issues. This person shall be on site during all AMG concrete placement.
4. Describe how project control is to be established. Include a list and map or kml file showing 3D control points enveloping the site. Incorporate department-provided primary control and contractor-provided secondary control into a single site control network. At a minimum provide sufficient 3D control to utilize not less than three control points in each total station setup, be it within a resection or as a setup point, backsight, and third point for an independent check. Use engineer-approved survey markers and/or targets. Ensure that secondary control points are accurate to within 0.02 feet horizontally and to within 0.01 feet vertically.
5. Describe total station setup procedures including methods used to set and relocate total stations for each day’s paving. Record or note the residual error in any resection calculation. Take and record check shots on 3D control points at varying distances from the instrument that represent the varying distances used in guiding the paving machine. Submit notes or digital reports of setup data and control-point checks daily.
6. Describe the contractor's quality control procedures. Describe procedures for checking, mechanical calibration, and maintenance of equipment. Include the frequency and type of checks performed to ensure that the trimmed base and concrete pavement conform to the contract plans.

650.3.8.3.3 Equipment

(1) Use robotic total stations machine guidance or other engineer approved combination of methodologies to meet the contract requirements.

(2) Perform periodic sensor and/or pan calibrations and other routine adjustments as required to ensure that the trimmed base and concrete pavement conform to the contract plans.

650.3.8.3.4 Geometric and Surface Information

650.3.8.3.4.1 Department Responsibilities

(1) The department will provide electronic design data in the contractor data packet. See the Contractor Data Packet contract special provision for a list of design data content.

650.3.8.3.4.2 Contractor Responsibilities

(1) Obtain elevations of adjacent pavement and bridges at centerline, edge of pavement, and other locations necessary to characterize existing profile and cross slope. Adjust design profile grade and cross slope to provide a smooth transition from the new pavement to the existing pavement or bridge. Notify the engineer when a smooth profile cannot be provided. Submit final adjusted plan elevations to the engineer.

(2) Review department-provided design model data for areas of the project employing AMG. Report inconsistencies between that data and the contract plans to the engineer and work with the engineer to resolve those inconsistencies. Use the resulting revised design model data and matching as-built surface data from above item (1) to develop a contractor construction model.

(3) Provide the resulting construction model data proposed for the paving operation to the department in LandXML v1.2 or AutoCAD DWG.

650.3.8.3.4.3 Managing and Updating Information

(1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.

(2) Revise the construction model as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised construction model agrees with the contract plan revisions. Provide a copy of the resulting adjusted construction model data to the engineer in LandXML v1.2 or AutoCAD DWG. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.8.3.5 Construction Checks

650.3.8.3.5.1 Final Base Checks

(1) Check the trimmed base against the final adjusted plan elevation at randomly selected points on cross sections located at stations evenly divisible by 100. Conduct at least one random check per 250 lane-feet corresponding to the basic units used to assess pavement thickness under standard spec 415.3.16. Also, check the trimmed base at additional points as the engineer directs. Notify the engineer at least 2 business days before making final checks so the engineer can observe the process.

(2) Ensure that no individual check is off by more than 0.02 foot vertically of the final adjusted plan elevation. Notify the engineer if this criterion is exceeded.

(3) The department may conduct periodic independent base checks. The department will notify the contractor if any individual check differs by more than 0.02 foot vertically from the final adjusted plan elevation.

650.3.8.3.5.2 Final Pavement Checks

(1) Check the finished concrete immediately after placement against the accepted plan elevation at randomly selected points on cross sections. Conduct at least one random check per 250 lane-feet corresponding to the basic units used to assess pavement thickness under standard spec 415.3.16. Also, check the pavement at drainage structures, bridges, driveways, intersections, ramp termini, and additional points as the engineer directs. Notify the engineer before making final checks so the engineer can observe the process.

(2) Notify the engineer immediately if the final pavement surface does not match the final adjusted plan elevation within 0.02 foot vertically.

(3) The department may conduct periodic independent pavement elevation checks. The department will notify the contractor if any individual check differs by more than 0.05 foot horizontally or 0.02 foot vertically from the final adjusted plan elevation.

D Measurement

The department will measure Survey Project (project ID) with Optional AMG for Concrete Pavement and Base Course 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.0105.002	Survey Project 1005-10-77 with Optional AMG for Concrete Pavement and Base Course	LS
SPV.0105.003	Survey Project 1005-10-87 with Optional AMG for Concrete Pavement and Base Course	LS
SPV.0105.004	Survey Project 5569-00-71 with Optional AMG for Concrete Pavement and Base Course	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

(2/14/2018)

199. Concrete Pavement Joint Layout, Project 1005-10-77, Item SPV.0105.005; Concrete Pavement Joint Layout, Project 1005-10-87, Item SPV.0105.006; Concrete Pavement Joint Layout, Project 5569-00-71, Item SPV.0105.007.

A Description

This special provision describes designing the joint layout and staking the location of all joints, including mainline, ramps and intersections to accommodate the concrete paving operation.

B (Vacant)

C Construction

Design the joint layout and stake the location of all joints, including mainline, ramps and intersections, to accommodate the concrete paving operation. Plan and set all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement according to the plans, the American Concrete Pavement Association Intersection Joint Layout Guidelines, and as directed by the engineer. Establish the joint layout in a manner to best-fit field conditions, construction staging, the plan, and as directed by the engineer.

D Measurement

The department will measure Concrete Pavement Joint Layout, completed according to the contract and accepted, as a single complete 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.0105.005	Concrete Pavement Joint Layout, Project 1005-10-77	LS
SPV.0105.006	Concrete Pavement Joint Layout, Project 1005-10-87	LS
SPV.0105.007	Concrete Pavement Joint Layout, Project 5569-00-71	LS

Payment is full compensation for designing the joint layout on the mainline, ramps and all intersections; for completing all surveying work necessary to locate all transverse and longitudinal joints; and for making adjustments to match field conditions and construction staging.

200. Install Fiber Optic Communications in Cabinet (STH 26 & Morse Street), Item SPV.0105.008; Install Fiber Optic Communications in Cabinet (STH 26 & IH 39 SB Ramps), Item SPV.0105.009; Install Fiber Optic Communications in Cabinet (STH 26 & IH 39 NB Ramps), Item SPV.0105.010; Install Fiber Optic Communications in Cabinet (STH 26 & Kettering Street), Item SPV.0105.011; Install Fiber Optic Communications in Cabinet (USH 14 & Lexington), Item SPV.0105.012; Install Fiber Optic Communications in Cabinet (USH 14 & Pontiac), Item SPV.0105.013; Install Fiber Optic Communications in Cabinet (USH 14 & IH 39 SB), Item SPV.0105.014; Install Fiber Optic Communications in Cabinet (USH 14 & IH 39 NB), Item SPV.0105.015; Install Fiber Optic Communications in Cabinet (USH 14 & Deerfield), Item SPV.0105.016.

A Description

This special provision describes installing fiber optic communications equipment in traffic signal cabinets. The Electrical Systems Integrator is to coordinate and supervise all work in this bid item.

B Materials

The department will furnish pre-terminated fiber optic patch panels and Ethernet switches. The patch panels will have pre-terminated fiber optic cable pigtails. Provide two each 1-meter lengths of ST-ST single mode fiber jumper (2 fibers per jumper) from the patch panel to the Ethernet switch. Provide a 1-meter length of Cat-5e cable from the Ethernet switch to the controller. Provide a 1-meter length of Cat-5e cable from the Ethernet switch to the Interface Panel. Cat-5e patch cords shall have factory pre-terminated RJ45 / 8P8C connectors on both ends per TIA/EIA T568B. Provide all patch panel, Ethernet switch, and Interface Panel attachment hardware.

Provide a 14 AWG XLP insulated, stranded, copper, 600 volt AC locate wire through the conduit run from the communication vault to the traffic signal cabinet. Connect the locate wire by using a silicone filled wire nut at each pull box, vault or other access point. Alternatively, use a single wire through the access points, leaving a six (6) foot coil in each pull box, vault or other access point for splicing. All material under this item shall meet the requirements of standard spec 655.

C Construction

Pick up all the department furnished materials at the department's Electrical Shop. Notify the department's Electrical field unit to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Install the patch panel and ethernet switch on the side of the traffic signal cabinet opposite the electrical service at a location as approved by the engineer. With approval by the engineer, the ethernet switch may be placed on a shelf near the patch panel. Install the pre-terminated fiber optic cable in conduit from the patch panel to the communication vault as specified in standard spec 678.3.1. Fiber optic cable ends shall be covered securely to protect open ends during installation in raceways. Leave the remainder of the fiber optic cable coiled in the communication vault.

Install the fiber jumpers and Cat-5e cable and provide a communications link from the communication vault to the controller for WisDOT owned traffic signals. Install the Cat5-e cable from the Interface Panel to the Ethernet switch.

Connect the locate wire by using a wire nut at each access point. Alternatively, use a single wire through the access points.

D Measurement

The department will measure Install Fiber Optic Communications in Cabinet (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.0105.008	Install Fiber Optic Communications in Cabinet (STH 26 & Morse Street)	LS
SPV.0105.009	Install Fiber Optic Communications in Cabinet (STH 26 & IH 39 SB Ramps)	LS
SPV.0105.010	Install Fiber Optic Communications in Cabinet (STH 26 & IH 39 NB Ramps)	LS
SPV.0105.011	Install Fiber Optic Communications in Cabinet (STH 26 & Kettering Street)	LS
SPV.0105.012	Install Fiber Optic Communications in Cabinet (USH 14 & Lexington)	LS

SPV.0105.013	Install Fiber Optic Communications in Cabinet (USH 14 & Pontiac)	LS
SPV.0105.014	Install Fiber Optic Communications in Cabinet (USH 14 & IH 39 SB)	LS
SPV.0105.015	Install Fiber Optic Communications in Cabinet (USH 14 & IH 39 NB)	LS
SPV.0105.016	Install Fiber Optic Communications in Cabinet (USH 14 & Deerfield)	LS

Payment is full compensation for transporting and installing pre-terminated patch panels, Ethernet switches, and fiber optic cable in conduit; furnishing and installing attachment hardware, fiber jumpers, Cat-5e cable, and locate wire.

201. Traffic-Diversion Detection System, Item SPV.0105.017.

A Description

This special provision describes maintaining an existing traffic-diversion detection system by relocating detector assemblies as required by construction activities, then removing at the end of project 1005-10-77.

B Materials

Provide all tools and equipment necessary to maintain the existing traffic-diversion detection system and relocating detector assemblies.

C Construction

Carefully re-aim and/or relocate the existing traffic-diversion detector assembly when required by construction activities. Remount the antenna to maximize signal strength.

Relocate and make operational the traffic-diversion detector assembly within two calendar days.

Storage of materials during the relocation process is the responsibility of the contractor and is incidental to this item.

Any materials which are damaged during the relocation process will be repaired or replaced at the expense of the contractor.

With approval from WisDOT, remove all diversion system components upon completion of all project activities associated with ID 1005-10-77. Salvage all equipment to WisDOT.

D Measurement

The department will measure Traffic-Diversion Detection System, completed according to the contract and accepted, 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.0105.017	Traffic-Diversion Detection System	LS

Payment is full compensation for Traffic-Diversion Detection System including re-aiming detectors, relocating detector assemblies, and for full system removal.

202. Electrical Systems Integrator – 1005-10-77, Item SPV.0105.018; Electrical Systems Integrator – 1005-10-87, Item SPV.0105.019; Electrical Systems Integrator – 5569-00-71, Item SPV.0105.020.

A Description

This special provision describes personnel qualifications, contract roles, construction methods, testing and documentation requirements used to perform traffic signal, lighting, and signal communications work.

B Materials

Materials shall be according to standard spec 651.2 and as hereinafter provided:

Facilitate all contractor and department-furnished item approvals and orders for scheduling of installation activities.

C Construction

Construction shall be according to standard spec 670.3 with the exception of the term “ITS” being replaced by “Traffic Signal, Lighting, and Traffic Signal Communications”, and as hereinafter provided:

Delete the requirement for the Integrator to be selected from the department's approved field system integrator list. The Electrical Systems Integrator may be on the list but shall also demonstrate qualifications necessary to provide management, assistance and expertise in the areas listed under standard spec 670.3.2.1. The Integrator shall also have experience with assembling components of traffic signal, lighting, and traffic signal communications systems to include the following:

- Standard equipment as furnished by the department for traffic signals, ITS, and street lighting.
- Video detection equipment as furnished by the department.
- Microwave detection equipment as furnished by the department.
- Wireless and ethernet communications equipment.
- Emergency vehicle preemption equipment.
- Remote traffic microwave sensors.
- Fiber optic, cellular and wireless communication equipment.
- Traffic signal interconnection systems.
- Railroad preemption.
- Street lighting controls.
- Bluetooth detection.
- Temporary signal programming.

Provide an ongoing role as Integrator(s) beginning with the compilation, review and approval of material submittals; through installation, testing, trouble-shooting and final acceptance of the working traffic signal system, interconnect, diversion trigger, and lighting systems; and all components including as-built documentation. The Integrator(s) role includes participation in weekly progress meetings as required by construction activities. Ensure all equipment is delivered and properly installed within the specified timeframes enforced under this contract.

D Measurement

The department will measure Electrical Systems Integrator - [project] 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.0105.018	Electrical Systems Integrator – 1005-10-77	LS
SPV.0105.019	Electrical Systems Integrator – 1005-10-87	LS
SPV.0105.020	Electrical Systems Integrator – 5569-00-71	LS

Payment is full compensation for providing specified expertise, assistance, assembly and documentation. The department will pay separately for other traffic signal, lighting, and traffic signal communications work under the various bid items in the contract.

203. Temp Traffic Signals for Intersec. – Modification (Pontiac Dr & Pontiac Pl), Item SPV.0105.021.

A Description

According to the plans and standard spec 661.1.

B Materials

According to the plans, standard spec 661.2, and as hereinafter provided:

Furnish incidental materials including wireless communications, wood poles, overhead cabling and guys, conduit, cabling and wiring, signs, traffic control devices, landscape restoration items as required to install, maintain, and remove the temporary traffic signal.

C Construction

According to the plans, standard spec 661.3, and as hereinafter provided:

Work includes taking over operations of the Pontiac Drive and Pontiac Place traffic signal from the City of Janesville in fall 2021. This signal will be operated in a fixed-time relationship with the USH 14 and Pontiac Drive intersection during the closure and detour of USH 14.

Perform temporary cabling connections or install wireless communications equipment as needed to provide fixed operations with the USH 14 and Pontiac Drive intersection. WisDOT will provide direction on the communications requirements prior to transferring operations from the City of Janesville.

Install all wood poles no later than November 15, 2021 to allow for winter 2022 installation of the signals if required by traffic conditions. WisDOT will provide activation and removal deadlines with at least one month prior notice.

Coordinate with adjacent property owners for driveway movements, signage, and site restoration.

Restore all signal equipment to pre-construction conditions when the intersection is transferred back to the City of Janesville.

D Measurement

The department will measure Temp Traffic Signals for Intersec. - Modification (Pontiac Dr & Pontiac Pl) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.021	Temp Traffic Signals for Intersec. - Modification (Pontiac Dr & Pontiac Pl)	LS

Payment is full compensation for furnishing, installing, maintaining and removing the complete installation as described in this specification.

204. Removing Sign Bridge S-53-0002, Item SPV.0105.022; Removing Sign Bridge S-53-0023, Item SPV.0105.023; Removing Sign Bridge S-53-0024, Item SPV.0105.024; Removing Sign Bridge S-53-0029, Item SPV.0105.025; Removing Sign Bridge S-53-0052, Item SPV.0105.026.

A Description

This special provision describes removing sign bridges according to the pertinent provisions of standard specification 204 and as hereinafter provided.

B (Vacant)

C Construction

Remove sign bridge, including truss, towers, catwalk, concrete footings and drilled shafts and backfill the resulting holes and properly dispose of all materials according to standard spec 204.

D Measurement

The department will measure Removing Sign Bridge (Structure) as a single lump sum 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.0105.022	Removing Sign Bridge S-53-0002	LS
SPV.0105.023	Removing Sign Bridge S-53-0023	LS
SPV.0105.024	Removing Sign Bridge S-53-0024	LS
SPV.0105.025	Removing Sign Bridge S-53-0029	LS
SPV.0105.026	Removing Sign Bridge S-53-0052	LS

Payment is full compensation for disassembling and removing the sign bridge and all attached components, removing the concrete footing and drilled shafts, for properly disposing of all materials, and incidentals necessary to complete the contract work.

205. Electrical Service Meter Breaker Pedestal Special (CB600), Item SPV.0105.350; Electrical Service Meter Breaker Pedestal Special (CB700), Item SPV.0105.351; Electrical Service Meter Breaker Pedestal Special (CB800), Item SPV.0105.352. Electrical Service Meter Breaker Pedestal Special (CB900), Item SPV.0105.353. Electrical Service Meter Breaker Pedestal Special (CB1000), Item SPV.0105.354. Electrical Service Meter Breaker Pedestal Special (CB1200), Item SPV.0105.358. Electrical Service Meter Breaker Pedestal Special (CB1300), Item SPV.0105.359.

A Description

Perform work according to the requirements of standard spec 656, the plans, standard detail drawings, and as hereinafter provided.

B Materials

According to the plans, 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 a 2-pole 100amp 120/240 Volt main breaker with 22,000 AIC rating or per utility requirements to be installed inside the meter breaker pedestal.

(3) Furnish photocell and lighting contactors capable of operating the designed lighting system as shown on the plans and construction details. Install the controls inside a 12”x 16”x 6” minimum, NEMA 3R rated outdoor enclosure with interior back plate. The enclosure shall be mounted to the 2”x 2” stainless steel square tubing supports. Photocell to be mounted on the outside of the enclosure.

(4) Furnish 2”x 2” stainless steel square tubing, concrete masonry and steel reinforcement as the plans show for rigidly mounting the meter pedestal.

(5) Furnish a 100amp 120/240 volt single phase 12 space 12 circuit breaker panel with a 100 amp main breaker, installed inside a NEMA 3R outdoor rated enclosure to be attached to the 2”x 2” stainless steel tubing supports. The main breaker is not allowed to occupy two of the twelve spaces required in the breaker panel.

(6) Furnish 2-pole and single pole 20amp circuit breakers in the electrical panel as required for the amount of circuits shown on the plans including one separate circuit for the lighting controls.

(7) Furnish all conduit, fittings, hardware, fasteners, terminals, breakers, wiring and any additional items necessary to complete the “meter breaker pedestal, electrical panel and lighting control installation” per the NEC, local and State codes, as shown on the plans, the construction details and described in this special provision.

C Construction

According to the plans and standard spec 656.3 and as hereinafter provided:

- Obtain a City of Janesville Electrical Permit from the Housing, Building, and Neighborhood Services Department prior to performing any work. Pay all permit fees.
- Ensure that electrical service is installed and energized a minimum of one week prior to the system activation deadline.

D Measurement

The department will measure the Electrical Service Meter Breaker Pedestal Special (location) bid item 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.0105.350	Electrical Service Meter Breaker Pedestal Special (CB600)	LS
SPV.0105.351	Electrical Service Meter Breaker Pedestal Special (CB700)	LS
SPV.0105.352	Electrical Service Meter Breaker Pedestal Special (CB800)	LS
SPV.0105.353	Electrical Service Meter Breaker Pedestal Special (CB900)	LS
SPV.0105.354	Electrical Service Meter Breaker Pedestal Special (CB1000)	LS
SPV.0105.358	Electrical Service Meter Breaker Pedestal Special (CB1200)	LS
SPV.0105.359	Electrical Service Meter Breaker Pedestal Special (CB1300)	LS

Payment is full compensation for furnishing and installing all materials; for excavation, backfill, disposal of surplus materials and permit fees.

206. Temporary Overhead Electrical Feed, Item SPV.0105.355.

A Description

This special provision describes furnishing, installing, and maintaining a temporary overhead electrical feed at the IH 39/90 and USH 14 interchange. The temporary electrical connection includes wood poles, guy wires, and aerial cable. Electrical work shall be according to standard spec 651. Work for temporary wood poles and guy wires shall be according to standard spec 661.

B Materials

Furnish Wood Poles Class 4 and guy wires conforming to standard spec 661. Furnish and install guy wires and support cables at all wood poles that have aerial power cables.

Furnish aerial cables consisting of 1 - #1 aluminum triplex cable for ITS overhead and 2 - #1 aluminum triplex overhead cables for the lighting circuits rated for the proposed span tension requirements. Overhead system distribution also includes all hardware and incidentals necessary to complete wiring terminations and connections to other components of the temporary lighting system.

Protect any cable that extends from grade to 10 feet above grade by a plastic cable guard.

C Construction

Install wood poles, guy, span, and messenger wire, and mounting hardware conforming to standard spec 661.3. Install all hardware as represented on the plans and all grounding components per National Electric Code.

Assemble and install the conductor assembly as shown in the plans and in the plan details. Maintain 21 foot overhead clearances, including wire sag. Install wires in conduit on poles and make connections.

Maintain the temporary overhead electrical feed at the off-ramp until the construction of USH 14 is open complete. Maintenance includes, but is not limited to, replacement of knocked down poles, and maintaining continuous operation of IH 39/90 lighting system and ITS camera.

Provide contact information for the city and police department for repair purposes and be able to respond within 2 hours to the project site for a knockdown. All other maintenance needs shall be completed within 24 hours of notification.

Remove the temporary overhead electrical feed when the permanent underground electrical infrastructure is completed with construction of USH 14. Restore the site to its previous condition, including backfilling post holes and compacting every 12 inches with engineer-approved material. Removal will be paid for under a separate bid item.

D Measurement

The department will measure Temporary Overhead Electrical Feed as a single lump sum unit of work, acceptably completed.

Relocations and alternative routing of aerial cable to facilitate construction activities and/or other installations not as shown on the plans or directed by the engineer is incidental to the Temporary Overhead Electrical Feed bid item.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.355	Temporary Overhead Electrical Feed	LS

Payment is full compensation for furnishing, installing, operating, and maintaining the temporary overhead electrical feed. Grounding components, guy wires, support cables, rigid metallic conduit and plastic cable guard are incidental to this item.

207. Gateway Sign Lighting NB Janesville, Item SPV.0105.356; Gateway Sign Lighting SB Janesville, Item SPV.0105.357.

A Description

This special provision describes furnishing and installing architectural lighting system for the City of Janesville gateway signs.

B Materials

B.1 Material Qualifications

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

- Verification showing the concrete foundation design
- Illumination results of flood light performance
- Cut sheets, warranty information and parts list for all equipment

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

B.2 Concrete Foundation

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

The concrete foundation shall have a nominal outer diameter of 1', and be compatible with the dimensional and mounting characteristics of the proposed flood light, and proposed locations. Provide documentation showing that the concrete foundation meets applicable design criteria and manufacturer requirements. The engineer shall approve the concrete foundation design and foundation locations prior to installation.

B.3 Flood Light

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

- Total wattage between 50-115 watts
- Flood light shall have a slip fitter mount for 2" rigid conduit with knuckle allowing for full range of motion and field adjustability
- Glare Shield
- 4K color temperature or near equivalent
- I.P Rating of 65 or greater
- All components U.L. Listed for wet locations
- Luminaire shall provide illuminance performance as follows:
    - 10 foot-candle average or better on sign surface
    - 1.5:1 Ave/Min or better

B.4 Incidental Electrical Materials

Furnish pullboxes, conduits, fittings, wiring, fusing, and incidental materials according to the standard spec 652, 653, 654 and 655, the plans and as the manufacturer directs. Provide for all incidental items to allow for a fully functional sign lighting system upon the City of Janesville providing for electrical service from the utility.

C Construction

Install foundations, luminaires, pullboxes, conduits, fittings, wiring, fusing, and incidental materials according to the standard spec 652, 653, 654 and 655, the plans and as the manufacturer directs. Provide for installation of all major and incidental items to allow for a fully functional sign lighting system upon the City of Janesville providing for electrical service from the utility.

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

D Measurement

The department will measure Gateway Sign Lighting (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.0105.356	Gateway Sign Lighting NB Janesville	LS
SPV.0105.357	Gateway Sign Lighting SB Janesville	LS

Payment is full compensation for furnishing and installing conduit, conductors, pull boxes, concrete foundations, and flood lights.

208. Salvage ITS Equipment EXCP-1 (USH 14 Interchange), Item SPV.0105.401; Salvage ITS Equipment EXCP-2 (USH 14 Interchange), Item SPV.0105.402; Salvage ITS Equipment (STH 26 Interchange), Item SPV.0105.403.

A Description

This special provision describes salvaging existing ITS equipment as indicated on the plans. This includes salvaging the following ITS equipment at the following locations:

Existing Camera and Detection Site at USH 14 Interchange (CCTV-53-0024, SDS-53-0024, and WMN-0063):

- Camera assembly (to be delivered to WisDOT SW Region)
- Video encoder (to be delivered to WisDOT SW Region)
- Microwave detectors (to be delivered to WisDOT SW Region)
- Serial to Ethernet converter (to be delivered to WisDOT SW Region)
- Pole mounted cabinet (to be reinstalled at temporary camera site at USH 14 Interchange)
- Ethernet switch (to be reinstalled at temporary camera site at USH 14 Interchange)
- Wireless mesh radio assembly (to be reinstalled at temporary camera site at USH 14 Interchange)

Temporary Camera Site at USH 14 Interchange (CCTV-53-0024 and WMN-0063):

- Camera assembly (to be reinstalled at permanent camera site at USH 14 Interchange)
- Pole mounted cabinet (to be reinstalled at permanent camera site at USH 14 Interchange)
- Ethernet switch (to be reinstalled at permanent camera site at USH 14 Interchange)
- Wireless mesh radio assembly (to be reinstalled at permanent camera site at USH 14 Interchange)

Existing Camera Site at USH 26 Interchange (CCTV53-0023 and WMN-0062):

- Camera assembly (to be delivered to WisDOT SW Region)
- Video encoder (to be delivered to WisDOT SW Region)
- Pole mounted cabinet (to be delivered to WisDOT SW Region)
- Ethernet switch (to be reinstalled at permanent camera site at USH 26 Interchange)
- Wireless mesh radio assembly (to be reinstalled at permanent camera site at USH 26 Interchange)

B Materials

Provide all tools and equipment necessary to salvage the existing ITS equipment.

C Construction

Prior to salvaging, the Field System Integrator must determine if the ITS equipment is fully functional. If any part of the ITS equipment is found to not meet original manufacturer's specifications, contact Kyle Hemp of the WisDOT SW Region at (608) 246-5367.

Carefully salvage the existing ITS equipment at the location indicated on the plans. Salvage all mounting hardware and cables/wires associated with the ITS equipment.

Reinstallation of the ITS equipment, as indicated on the plans or as directed by the engineer, including any new materials required (cables or mounting hardware for example) will be paid for under other bid items.

Deliver ITS equipment that will not be reinstalled to Dale Roth at the WisDOT SW Region, 2101 Wright Street, Madison, WI 53704 at a mutually agreed upon time during normal state office hours. Contact Dale Roth at (608) 516-6435 to coordinate delivery of equipment.

Storage of materials prior to reinstallation and/or delivery is the responsibility of the contractor and is incidental to this item.

Any materials which are damaged during the salvaging, delivery, or reinstallation process will be repaired or replaced at the expense of the contractor.

D Measurement

The department will measure Salvage ITS Equipment (location), completed according to the contract and accepted, as a single complete 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.0105.401	Salvage ITS Equipment EXCP-1 (USH 14 Interchange)	LS
SPV.0105.402	Salvage ITS Equipment EXCP-2 (USH 14 Interchange)	LS
SPV.0105.403	Salvage ITS Equipment (STH 26 Interchange)	LS

Payment is full compensation for salvaging the ITS equipment including delivery of salvaged ITS equipment that will not be reinstalled to the department.

209. Relocate Solar-Powered Bluetooth Sensor, Item SPV.0105.404.

A Description

This special provision describes relocating an existing solar-powered Bluetooth sensor as indicated on the plans.

B Materials

Provide all tools and equipment necessary to relocate the existing solar-powered Bluetooth sensor.

Provide all tools and equipment necessary to convert the existing solar-powered Bluetooth sensor to a hardwired Bluetooth sensor.

C Construction

Prior to relocating, the Field System Integrator must determine if the solar-powered Bluetooth sensor is fully functional. If any part of the solar-powered Bluetooth sensor is found to not meet original manufacturer's specifications, contact Kyle Hemp of the WisDOT SW Region at (608) 246-5367.

Carefully relocate the existing solar-powered Bluetooth sensor as indicated on the plans. Relocate all mounting hardware and cables/wires associated with the solar-powered Bluetooth sensor. Remount the antenna to maximize signal strength.

Relocate and make operational the Bluetooth sensor within five days.

Storage of materials during the relocation process is the responsibility of the contractor and is incidental to this item.

Any materials which are damaged during the relocation process will be repaired or replaced at the expense of the contractor.

D Measurement

The department will measure Relocate Solar-Powered Bluetooth Sensor, completed according to the contract and accepted, as a single complete 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.0105.404	Relocate Solar-Powered Bluetooth Sensor	LS

Payment is full compensation for relocating the solar-powered Bluetooth sensor.

210. Remove Traffic Signal (STH 26 & Morse Street), Item SPV.0105.450; Remove Traffic Signal (STH 26 & Kettering Street), Item SPV.0105.451; Remove Traffic Signal (USH 14 & IH 39 SB Ramps), Item SPV.0105.452; Remove Traffic Signal (USH 14 & IH 39 NB Ramps), Item SPV.0105.453; Remove Traffic Signal (USH 14 & Lexington), Item SPV.0105.454; Remove Traffic Signal (USH 14 & Pontiac), Item SPV.0105.455; Remove Traffic Signal (USH 14 & IH 39 SB), Item SPV.0105.456; Remove Traffic Signal (USH 14 & IH 39 NB), Item SPV.0105.457; Remove Traffic Signal (USH 14 & Deerfield), Item SPV.0105.458.

A Description

This special provision describes Remove Traffic Signal (location) according to the pertinent provisions of standard spec 204 and as hereinafter provided. Work under this item also includes transporting or disposing of the existing equipment, including removal of existing electrical service as well as required utility coordination, as directed in this special provision. Removal of pull boxes and concrete bases at the above listed intersections shall be paid for separately.

B (Vacant)

C Construction

Prior to removal, coordinate the de-energizing of the traffic signals and removal of existing electrical service with the local electrical utility after receiving approval from the engineer that the existing traffic signals can be removed.

Notify the Southwest Region Traffic Section, Graham Heitz, (608) 246-5362, and the City of Janesville, (608) 755-3160, at least five working days prior to the removal of the traffic signals. Coordinate the salvaging of any materials per article Street Lighting, Traffic Signal and Diversion Trigger Systems – General of these special provisions. For all items salvaged, the department and the City of Janesville will provide documentation of the equipment to be salvaged during the coordinating phase of this removal work.

Coordinate any salvaging requested by the department or the City of Janesville in advance of removal activities. Complete the removal work as soon as possible following shut down of this equipment. Dispose of the underground signal cable and internal wiring off the right-of-way.

<u>USH 14 & Deerfield Drive – 1005-10-87 ID</u>

At the intersection of USH 14 & Deerfield Dr, provide protection after the pole removals for both type 12 concrete bases that are to remain in place. Protection necessary to protect exposed anchor bolts throughout construction and the method of protection is to be approved by the engineer.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.450	Remove Traffic Signal (STH 26 & Morse Street)	LS
SPV.0105.451	Remove Traffic Signal (STH 26 & Kettering Street)	LS
SPV.0105.452	Remove Traffic Signal (USH 14 & IH 39 SB Ramps)	LS
SPV.0105.453	Remove Traffic Signal (USH 14 & IH 39 NB Ramps)	LS
SPV.0105.454	Remove Traffic Signal (USH 14 & Lexington)	LS
SPV.0105.455	Remove Traffic Signal (USH 14 & Pontiac)	LS
SPV.0105.456	Remove Traffic Signal (USH 14 & IH 39 SB)	LS
SPV.0105.457	Remove Traffic Signal (USH 14 & IH 39 NB)	LS
SPV.0105.458	Remove Traffic Signal (USH 14 & Deerfield)	LS

Payment is full compensation for arranging the de-energizing; removing and disassembling traffic signals; coordinating the salvaging; and incidentals necessary to complete the contract work.

211. Salvage and Install Traffic Signal Cabinet (STH 26 & Morse Street), Item SPV.0105.459; Salvage and Install Traffic Signal Cabinet (STH 26 & IH 39 SB Ramps), Item SPV.0105.460; Salvage and Install Traffic Signal Cabinet (STH 26 & IH 39 NB Ramps), Item SPV.0105.461; Salvage and Install Traffic Signal Cabinet (STH 26 & Kettering Street), Item SPV.0105.462; Salvage and install Traffic Signal Cabinet (USH 14 & IH 39 SB Ramps), Item SPV.0105.463; Salvage and Install Traffic Signal Cabinet (USH 14 & Lexington), Item SPV.0105.464; Salvage and Install Traffic Signal Cabinet (USH 14 & Pontiac), Item SPV.0105.465; Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 SB), Item SPV.0105.466; Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 NB), Item SPV.0105.467; Salvage and Install Traffic Signal Cabinet (USH 14 & Deerfield), Item SPV.0105.468; Install Traffic Signal Cabinet (Deerfield & Ryan), Item SPV.0105.497.

A Description

This special provision describes the removal, transportation, storage, and installing new cabinet, controller, and all other equipment within the signal cabinet.

B Materials

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

Append standard spec 651.3.3 (6) with the following:

Operate the completed traffic signal installation for 30 days consecutively, using the specified signal sequence(s) and all special functions, such as preemption as the plans show or as specified by the engineer.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

Coordinate with the engineer to identify the items to be salvaged.

Contact the Southwest Region Traffic Section, Graham Heitz, (608) 246-5362, at least seven days prior to removal of the signal cabinet and contents from the intersection to identify all items to be salvaged, reinstalled or disposed. When removing the signal cabinet and contents, carefully remove and store all equipment at a location approved by the engineer. The contractor shall coordinate salvaged item delivery with the department.

Deliver salvaged materials to the WisDOT Southwest Region Electrical Shop.

Install cabinet on new or existing concrete bases as stated on the plans and miscellaneous quantities and terminate all field wiring. This item includes documenting existing cabling for reinstallation. Provide additional masonry anchors as required to secure the cabinet to the base.

Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. The departments' Region Electrical personnel will perform the inspection.

Coordinate directly with the department's traffic signal cabinet vendor to schedule the cabinet acceptance testing. Notify the department's Electrical Field Unit and participate in the acceptance testing. The department has the final determination of the cabinet acceptance testing date and time. The acceptance testing procedures will be provided by the department. The department will not be responsible for project delays and costs due to the delays of delivery by the vendor or by the failure of the traffic signal cabinet to pass acceptance testing.

D Measurement

The department will measure Salvage and Install Traffic Signal Cabinet (location) and Install Traffic Signal Cabinet (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.0105.459	Salvage and Install Traffic Signal Cabinet (STH 26 & Morse Street)	LS
SPV.0105.460	Salvage and Install Traffic Signal Cabinet (STH 26 & IH 39 SB Ramps)	LS
SPV.0105.461	Salvage and Install Traffic Signal Cabinet (STH 26 & IH 39 NB Ramps)	LS
SPV.0105.462	Salvage and Install Traffic Signal Cabinet (STH 26 & Kettering Street)	LS
SPV.0105.463	Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 SB Ramps)	LS
SPV.0105.464	Salvage and Install Traffic Signal Cabinet (USH 14 & Lexington)	LS
SPV.0105.465	Salvage and Install Traffic Signal Cabinet (USH 14 & Pontiac)	LS
SPV.0105.466	Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 SB)	LS
SPV.0105.467	Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 NB)	LS
SPV.0105.468	Salvage and Install Traffic Signal Cabinet (USH 14 & Deerfield)	LS
SPV.0105.477	Install Traffic Signal Cabinet (Deerfield & Ryan)	LS

Payment is full compensation for salvaging, transporting, installing and testing the traffic signal cabinet and other equipment; for furnishing and installing all other items necessary (such as, wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, relays for ITS, etc.) to make the proposed system complete from the source of supply to the most remote unit; and for clean-up and waste disposal.

212. Interim Traffic Signals for Intersections (USH 14 & IH 39 SB Ramps), Item SPV.0105.469; Interim Traffic Signals for Intersections (USH 14 & IH 39 NB Ramps), Item SPV.0105.470.

A Description

This special provision describes furnishing, installing, and maintaining a long term duration interim traffic signal installation at the location as shown on the plans. Perform all work according to standard spec 661 and as hereinafter provided. These items are for temporary signals at the USH 14 interchange under the 1005-10-77 ID. A cell modem will be provided by WisDOT to allow for remote communication to the intersections in the event of an emergency. Installing the cell modem is paid for under item Install Cellular Modem.

B Materials

Provide all materials according to the plans and standard spec 661.2 and as hereinafter provided.

B.1 Interim Traffic Signal Requirements

Furnish and maintain traffic signal equipment through all stages of construction. The department will furnish, install, and operate the controller/cabinet at all times.

Coordinate directly with the department's assigned project electrician for all activities associated with this bid item which require modifications to department furnished traffic signal control cabinets. The department will provide contact information for the designated project electrician at the preconstruction meeting. Contact the department at least 30 working days prior to the scheduled installation of all department operated interim traffic signals, and 10 working days prior to all subsequent changes in operation. Contact Graham Heitz, (608) 246-5362 in advance of the preconstruction meeting with any questions regarding this bid item.

For the final stage of the interim traffic signals at each intersection, furnish equipment and materials suitable for a multi-year interim traffic signal installation capable of operations over winter.

B.2 Non-Intrusive Detection

Furnish all materials and equipment required to operate and maintain a fully functioning interim traffic signal vehicle detection system. The following methods of interim traffic signal vehicle detection are allowed:

- Existing inductive loops
- Video detection
- Microwave detection
- Combination of options listed above

Furnish materials and equipment capable of providing the detection zones and functionality as shown on the plans. All methods shall provide for true presence detection. Detection equipment placement may require multiple installations and adjustments, which shall be considered included in this bid item.

B.3 Microwave Detection, Video Detection and Radio Communications

The department will furnish the existing microwave sensors, detector cards, video cameras, radio communications equipment and mounting hardware only if desired by the contractor for the implementation and maintenance of the detection system. All required cabling, remaining hardware, fasteners and wiring connections necessary to install and integrate these items shall be furnished under separate bid items in this contract.

B.4 Emergency Vehicle Preemption

Furnish emergency vehicle preemption equipment including, mounting hardware, wiring, cabinet equipment, and incidentals necessary to provide traffic signal preemption as shown on the interim traffic signal plans. Re-use the existing emergency vehicle preemption detectors for installation with the interim traffic signals. Furnish equipment for pole mounting, or span wire mounting as required to allow for line-of-sight placement with emergency vehicle emitters during all stages of construction.

B.5 Interim Signal Cabinet Base

Furnish interim signal cabinet base platforms, stringers and post material from green-treated lumber rated for direct contact with the ground, as shown on the plans. Furnish galvanized fasteners.

B.6 Street Lighting

Furnish street lighting equipment including arms, LED C luminaires, mounting hardware, wiring, controls, and incidentals necessary to provide lighting as shown on the interim traffic signal plans. Lighting cables shall be rated to maintain acceptable voltage drop and span tension.

B.7 General Materials

Furnish all materials required to install and maintain the interim traffic signals during all stages as shown on the plans. General materials include, but are not limited to:

- Sheeting for obscuring (bagging) existing signals.
- Signal head visibility limiting devices (if needed).
- Hardware for span wire mounting of EVP detectors (if needed).
- Conduit, fittings, pull boxes, and cabling for integrating interim signals with segments of permanent signal conduit and structure conduits.

C Construction

C.1 General

Construct the interim traffic signals according to the plans and standard spec 661.3 and as hereinafter provided.

Arrange for monthly inspections with the engineer to review the height of the span wire above the roadways to ensure that the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway as provided in the plans. Make all height adjustments within 24-hours of an inspection. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each monthly inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer.

Inspections can be more frequent than monthly as directed by the engineer.

C.2 Non-Intrusive Detection

Provide equipment specifications and other technical documentation to the engineer for approval 30 calendar days prior to furnishing any detection equipment. Include documentation depicting the operational characteristics of the detection method(s) proposed for each intersection. Provide verification of the detection method’s ability to function correctly under the proposed site conditions, including mounting methods and coordination with temporary pavement operations.

Install, adjust, relocate, or remove detection equipment and/or detection zones for each stage of traffic operations shown in the plans, or as modified by changes in field conditions, and as directed by the engineer. This includes adjustments necessary for both contractor-furnished and department-furnished non-intrusive detection.

Damage to new or temporary pavement for temporary inductive loops will not be allowed.

C.3 Microwave Detection, Video Detection and Radio Communications

The department's assigned project electrician will supply the contractor with detection and communications equipment and oversee the installation, integration, and all subsequent changes in operation. All required work necessary to install and integrate these items shall be completed under separate bid items in this contract. Modifications to traffic signal cabinets, completing wiring terminations, programming and testing will be provided by the department.

C.4 Emergency Vehicle Preemption

Install emergency vehicle preemption equipment as shown on the interim traffic signal plans. Adjust locations of emergency vehicle preemption detectors throughout the stages of construction as needed to allow for line-of-sight placement with emergency vehicle emitters. This item includes removal of the existing emergency vehicle preemption detectors, and reinstallation as part of the interim traffic signals as shown on the plans.

C.5 Interim Signal Cabinet Base

Construct and install the base according to the plans at a location shown in the plans.

C.6 Street Lighting

Install poles, arms and LED C luminaires as shown on the plans. Re-orient the luminaires throughout the stages of construction as needed to illuminate the active travel lanes and pedestrian crossings.

C.7 Integration with Permanent Signal Conduits

Install conduits, fittings, pull boxes, and cabling according to standard spec, and as shown on the plans for the final stage signal operation. Integrate segments of the permanent signal conduit system for use with interim signal cabling. All connections to permanent signal conduits and pull boxes shall be approved by the engineer.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.469	Interim Traffic Signals for Intersections (USH 14 & IH 39 SB Ramps)	LS
SPV.0105.470	Interim Traffic Signals for Intersections (USH 14 & IH 39 NB Ramps)	LS

Payment is full compensation for furnishing, installing, operating, and maintaining the traffic signal equipment; and for providing the equipment.

213. Temp Traffic Signals for Intersections - Takeover (STH 26 & IH 39 SB Ramps), Item SPV.0105.471; Temp Traffic Signals for Intersections - Takeover (STH 26 & IH 39 NB Ramps), Item SPV.0105.472.

A Description

According to the plans and standard spec 661.1. A cell modem will be provided by WisDOT to allow for remote communication to the intersections in the event of an emergency. Installing the cell modem is paid for under item Install Cellular Modem.

B Materials

B.1 General

According to the plans, standard spec 661.2, and as hereinafter provided:

Contact the department at least 5 working days prior to the scheduled takeover of the existing the temporary traffic signal and all subsequent changes in operation. Contact Southwest Region Traffic Section, Graham Heitz, (608) 246-5362, in advance of the preconstruction meeting with any questions regarding this bid item.

Modification and installation of traffic signal cabinets wiring terminations, programming changes and testing procedures will be the responsibility of the contractor.

B.2 Equipment Transfer

All temporary traffic signal materials from the previous contract (1005-10-73) become the property of the 1005-10-77 contractor. Remove all existing temporary signal equipment at the end of its use.

Upon completion of the 1005-10-77 project, the traffic signal cabinet and its contents, the video camera system, and microwave detection systems become the property of the department.

B.3 Street Lighting

Furnish street lighting equipment including poles, arms, luminaires, cable mounting hardware, wiring and incidentals necessary to provide lighting as shown on the temporary traffic signal plans. Aerial cables shall be rated to maintain acceptable voltage drop and span tension.

B.4 Temporary Signal Cabinet Base

Furnish all temporary signal cabinet base platform, stringers and post material from green-treated lumber rated for direct contact with the ground. All fasteners shall be galvanized.

B.5 Incidental Materials

Furnish incidental materials required to install and maintain the temporary signal during all stages as shown on the plans. Incidental materials include, but are not limited to:

- Additional cabinets and controllers to maintain traffic signal operations
- Sheeting for obscuring (bagging) existing signals
- Signal head visibility limiting devices (if needed)

C Construction

C.1 General

According to the plans, standard spec 661.3, and as hereinafter provided:

Arrange for monthly inspections with the engineer to check the height of the span wire above the roadways to ensure that the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway. Make all height adjustments within 24-hours of an inspection indicating that adjustments are required. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each monthly inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer.

Verify the placement of traffic control items, crash cushions and temporary concrete barrier prior to locating and installing temporary signal poles during all stages.

C.2 Operational Transfer

Operation and maintenance responsibility will begin when the traffic signal operations or existing equipment are disrupted by construction activities as noted on the temporary traffic signal plan sheets for each location.

C.3 Street Lighting

Install poles, arms and luminaires as shown on the plans. Re-orient the luminaires throughout the stages of construction as needed to illuminate the active travel lanes.

C.4 Temporary Signal Cabinet Base

Construct and install the base according to the plans at a location to be determined by the engineer.

C.5 Vehicle Detection

This item includes coordinating the operation of an existing microwave detection and video camera systems installed under a previous construction contract (1005-10-73). Re-aim and re-position sensors as needed for changes in temporary signal operations throughout construction to provide detection areas as shown on the plans.

This item includes installation and operation of an additional detection devices if required to provide the detection areas as shown on the plans.

Under this item, install, operate and maintain any new detectors and cables above and beyond what is shown as existing as required during construction.

C.6 Multiple Temporary Signal Configurations

This item includes multiple configurations and re-installations of the temporary traffic signal. Work includes installing reconstructed portions of the temporary traffic signal while the temporary signals under the previous configuration remain in operation. Allow for additional equipment on site to maintain temporary signal operations at all times during construction.

C.7 Diamond Diverging Interchange (DDI) Switch-Over

Multiple switch-overs will be required during the final stage of construction. First, to perform the switch from diamond interchange control to temporary DDI control; second, to perform the switch from temporary DDI control to permanent DDI control.

The first switch-over (from diamond to temporary DDI) will consist of operating permanent signal heads as well as temporary signal heads operating at other locations. The second switch-over (from temporary DDI to permanent DDI) will consist of operating permanent signal heads at all locations while the temporary signals are removed.

Do not drill holes or otherwise damage any permanent signal equipment. The engineer shall approve all temporary cabling and mounting using permanent signal equipment prior to installation.

All coordination required to execute the switch-overs shall be considered incidental to this bid item. All traffic control devices required to execute the switch-overs shall be considered incidental to the Traffic Control Project bid item.

D Measurement

The department will measure Temp Traffic Signals for Intersections - Takeover (locations) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.471	Temp Traffic Signals for Intersections - Takeover (STH 26 & IH 39 SB Ramps)	LS
SPV.0105.472	Temp Traffic Signals for Intersections - Takeover (STH 26 & IH 39 NB Ramps)	LS

Payment is full compensation for furnishing, installing, operating, maintaining and removing the complete installation.

214. Temp Traffic Signals for Intersections – Takeover (USH 14 & IH 39 SB Ramps), Item SPV.0105.473; Temp Traffic Signals for Intersections – Takeover (USH 14 & IH 39 NB Ramps), Item SPV.0105.474.

A Description

According to the plans and standard spec 661.1. These items are for temporary signals at the USH 14 interchange under the 1005-10-87 ID. A cell modem will be provided by WisDOT to allow for remote communication to the intersections in the event of an emergency. Installing the cell modem is paid for under item Install Cellular Modem.

B Materials

B.1 General

According to the plans, standard spec 661.2, and as hereinafter provided:

Contact the department at least 5 working days prior to the scheduled takeover of the existing the temporary traffic signal and all subsequent changes in operation. Contact Southwest Region Traffic Section, Graham Heitz, (608) 246-5362, in advance of the preconstruction meeting with any questions regarding this bid item.

Modification and installation of traffic signal cabinets wiring terminations, programming changes and testing procedures will be the responsibility of the contractor.

B.2 Equipment Transfer

All temporary traffic signal materials installed under the 1005-10-77 ID will be in place for use under the 1005-10-87 ID. Remove all existing temporary signal equipment at the end of its use.

Upon completion of the 1005-10-87 project, the traffic signal cabinet and its contents, the video camera system, and microwave detection systems become the property of the department.

B.3 Street Lighting

Furnish street lighting equipment including poles, arms, luminaires, cable mounting hardware, wiring and incidentals necessary to provide lighting as shown on the temporary traffic signal plans. Aerial cables shall be rated to maintain acceptable voltage drop and span tension.

B.4 Temporary Signal Cabinet Base

Furnish all temporary signal cabinet base platform, stringers and post material from green-treated lumber rated for direct contact with the ground. All fasteners shall be galvanized.

B.5 Incidental Materials

Furnish incidental materials required to install and maintain the temporary signal during all stages as shown on the plans. Incidental materials include, but are not limited to:

- Additional cabinets and controllers to maintain traffic signal operations
- Sheeting for obscuring (bagging) existing signals
- Signal head visibility limiting devices (if needed)

C Construction

C.1 General

According to the plans, standard spec 661.3, and as hereinafter provided:

Arrange for monthly inspections with the engineer to check the height of the span wire above the roadways to ensure that the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway. Make all height adjustments within 24-hours of an inspection indicating that adjustments are required. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each monthly inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer.

Verify the placement of traffic control items, crash cushions and temporary concrete barrier prior to locating and installing temporary signal poles during all stages.

C.2 Operational Transfer

Operation responsibility will begin when the traffic signal operations or existing equipment are disrupted by construction activities as noted on the 1005-10-87 temporary traffic signal plan sheets for each location.

C.3 Street Lighting

Install poles, arms and luminaires as shown on the plans. Re-orient the luminaires throughout the stages of construction as needed to illuminate the active travel lanes.

C.4 Temporary Signal Cabinet Base

Construct and install the base according to the plans at a location to be determined by the engineer.

C.5 Vehicle Detection

Furnish all materials and equipment required to operate and maintain a fully functioning traffic signal vehicle detection system.

Furnish materials and equipment capable of providing the detection zones and functionality as shown on the plans. All methods shall provide for true presence detection. Detection equipment placement may require multiple installations and adjustments, which shall be considered included in this bid item.

C.6 Multiple Temporary Signal Configurations

This item includes multiple configurations and re-installations of the temporary traffic signal. Work includes installing reconstructed portions of the temporary traffic signal while the temporary signals under the previous configuration remain in operation. Allow for additional equipment on site to maintain temporary signal operations at all times during construction.

D Measurement

The department will measure Temp Traffic Signals for Intersections - Takeover (locations) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.473	Temp Traffic Signals for Intersections - Takeover (USH 14 & IH 39 SB Ramps)	LS
SPV.0105.474	Temp Traffic Signals for Intersections - Takeover (USH 14 & IH 39 NB Ramps)	LS

Payment is full compensation for furnishing, installing, operating, maintaining and removing the complete installation.

215. Temp Traffic Signals for Intersections – Modification (USH 14 & STH 26), Item SPV.0105.475.

A Description

According to the plans and standard spec 661.1. A cell modem will be provided by WisDOT to allow for remote communication to the intersections in the event of an emergency. Installing the cell modem is paid for under item Install Cellular Modem.

B Materials

According to the plans, standard spec 661.2, and as hereinafter provided:

Furnish incidental materials required to maintain and operate the signal during all stages as shown on the plans. Incidental materials include, but are not limited to:

- Sheeting for obscuring (bagging) existing signals
- Signal head visibility limiting devices (if needed)

C Construction

According to the plans, standard spec 661.3, and as hereinafter provided:

Contact the department at least three weeks prior to the scheduled closure of the east leg of the USH 14 & STH 26 intersection. Contact Southwest Region Traffic Section, Graham Heitz, (608) 246-5362, in advance of the preconstruction meeting with any questions regarding this bid item.

Contractor shall securely bag, turn, and/or remove existing signal heads as required to safely operate the intersection during detoured operations. Perform additional modifications and adjustments when required to facilitate construction operations. Restore all signal equipment to pre-construction conditions when the intersection is re-opened to all traffic movements.

The department will maintain control and responsibility of signal operations, including retiming.

D Measurement

The department will measure Temp Traffic Signals for Intersections - Modification (USH 14 & STH 26) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.475	Temp Traffic Signals for Intersections – Modification (USH 14 & STH 26)	LS

Payment is full compensation for furnishing, installing, maintaining and removing the complete installation as described in this specification.

216. Temp Traffic Signals for Intersections – Local (Holiday Dr & Lexington Dr), Item SPV.0105.476; Temp Traffic Signals for Intersections – Local (Morse St & Ryan Rd), Item SPV.0105.477.

A Description

According to the plans and standard spec 661.1.

B Materials

According to the plans, standard spec 661.2, and as hereinafter provided:

Furnish incidental materials including signs, wood posts, traffic control devices, landscape restoration items as required to install, maintain, and remove the temporary traffic signal.

C Construction

According to the plans, standard spec 661.3, and as hereinafter provided:

Install all wood poles and electrical services no later than November 15, 2021 to allow for winter 2022 installation of the signals if required by traffic conditions. WisDOT will provide activation and removal deadlines with at least one month prior notice.

Coordinate in advance with WisDOT and the City of Janesville regarding requirements for placing the intersection into flash operations at start-up and removal.

Coordinate with adjacent property owners for driveway movements, signage, and site restoration.

Coordinate with the City of Janesville regarding the removal, storing, and reinstalling of poles, trombone arms, and signs as indicated on the plans.

D Measurement

The department will measure Temp Traffic Signals for Intersections - Local (location) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.476	Temp Traffic Signals for Intersections - Local (Holiday Dr & Lexington Dr)	LS
SPV.0105.477	Temp Traffic Signals for Intersections - Local (Morse St & Ryan Rd)	LS

Payment is full compensation for furnishing, installing, maintaining and removing the complete installation as described in this specification.

217. Transport and Install State Furn Adaptive Cameras (STH 26 & Morse St), Item SPV.0105.478; Transport and Install State Furn Adaptive Cameras (STH 26 & IH 39 SB Ramps), Item SPV.0105.479; Transport and Install State Furn Adaptive Cameras (STH 26 & IH 39 NB Ramps), Item SPV.0105.480 Transport and Install State Furn Adaptive Cameras (STH 26 & Kettering St), Item SPV.0105.481; Transport and Install State Furn Adaptive Cameras (USH 14 & Lexington), Item SPV.0105.482; Transport and Install State Furn Adaptive Cameras (USH 14 & Pontiac), Item SPV.0105.483; Transport and Install State Furn Adaptive Cameras (USH 14 & IH 39 SB), Item SPV.0105.484; Transport and Install State Furn Adaptive Cameras (USH 14 & IH 39 NB), Item SPV.0105.485; Transport and Install State Furn Adaptive Cameras (USH 14 & Deerfield), Item SPV.0105.486.

A Description

This special provision describes the transporting and installing of department furnished Adaptive Cameras and mounting hardware.

B Materials

Pick up the department furnished Adaptive System Cameras, camera processor and mounting hardware at the Southwest Region's electrical shop. Notify the department's electrical field unit to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Furnish all remaining fasteners and wiring connections as incidental to this item.

C Construction

Install cameras and mounting hardware at locations as shown on the plans. Test and verify that each zone shown on the plans can be detected by each camera, as indicated in the plans. Adjust camera position/orientation as needed to provide detection at all zones shown on the plans. Multiple installations/adjustments may be required and shall be considered incidental to this bid item.

Assistance and support with programming the cameras shall be considered incidental to the Electrical Systems Integrator bid item.

Installation and integration of the camera processor shall be considered incidental to the respective Salvage and install Traffic Signal Cabinet bid item(s).

D Measurement

The department will measure Transport and Install State Furn Adaptive Cameras (location) as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.478	Transport and Install State Furn Adaptive Cameras (STH 26 & Morse St)	LS
SPV.0105.479	Transport and Install State Furn Adaptive Cameras (STH 26 & IH 39 SB Ramps)	LS
SPV.0105.480	Transport and Install State Furn Adaptive Cameras (STH 26 & IH 39 NB Ramps)	LS
SPV.0105.481	Transport and Install State Furn Adaptive Cameras (STH 26 & Kettering St)	LS
SPV.0105.482	Transport and Install State Furn Adaptive Cameras (USH 14 & Lexington)	LS
SPV.0105.483	Transport and Install State Furn Adaptive Cameras (USH 14 & Pontiac)	LS
SPV.0105.484	Transport and Install State Furn Adaptive Cameras (USH 14 & IH 39 SB)	LS
SPV.0105.485	Transport and Install State Furn Adaptive Cameras (USH 14 & IH 39 NB)	LS
SPV.0105.486	Transport and Install State Furn Adaptive Cameras (USH 14 & Deerfield)	LS

Payment is full compensation for transporting and installing the state furnished adaptive cameras and mounting hardware; and to aim and test each unit to provide a fully operational video detection system.

218. Install State Furnished EVP Equipment (STH 26 & Morse Street), Item SPV.0105.487; Install State Furnished EVP Equipment (STH 26 & IH 39 SB Ramps), Item SPV.0105.488; Install State Furnished EVP Equipment (STH 26 & IH 39 NB Ramps), Item SPV.0105.489; Install State Furnished EVP Equipment (STH 26 & Kettering Street), Item SPV.0105.490; Install State Furnished EVP Equipment (Deerfield Drive & Ryan Road), Item SPV.0105.491; Install State Furnished EVP Equipment (USH 14 & Lexington), Item SPV.0105.492; Install State Furnished EVP Equipment (USH 14 & Pontiac), Item SPV.0105.493; Install State Furnished EVP Equipment (USH 14 & IH 39 SB), Item SPV.0105.494; Install State Furnished EVP Equipment (USH 14 & IH 39 NB), Item SPV.0105.495; Install State Furnished EVP Equipment (USH 14 & Deerfield), Item SPV.0105.496.

A Description

This special provision describes installing a state furnished emergency vehicle preemption (EVP) system at the location shown on the plans and as provided hereafter.

B Materials

Pick up the department furnished EVP equipment at the Southwest Region's electrical shop. Notify the department's electrical field unit to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Provide polycarbonate traffic signal face mounting brackets, reducing bushings, lock rings, pinnacles (cap), pole grommets (or chase nipple), and any incidental items necessary for installation not furnished by the department.

Card rack and discriminator equipment will be installed and supplied by the department.

C Construction

Mount detectors and confirmation lights on the luminaire arms as shown on the plans.

Mount the EVP receiver and confirmation light as shown on the plans. Install the cable from the traffic signal control cabinet to the EVP receiver. Include a 6 foot loop of cable in the pull box nearest the mounting pole. Allow three days for scheduling of test for final acceptance. The department will supply, install, and terminate the card rack and discriminator equipment in the cabinet.

D Measurement

The department will measure Install State Furnished EVP Equipment (location) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.487	Install State Furnished EVP Equipment (STH 26 & Morse Street)	LS
SPV.0105.488	Install State Furnished EVP Equipment (STH 26 & IH 39 SB Ramps)	LS
SPV.0105.489	Install State Furnished EVP Equipment (STH 26 & IH 39 NB Ramps)	LS
SPV.0105.490	Install State Furnished EVP Equipment (STH 26 & Kettering Street)	LS
SPV.0105.491	Install State Furnished EVP Equipment (Deerfield Drive & Ryan Road)	LS
SPV.0105.492	Install State Furnished EVP Equipment (USH 14 & Lexington)	LS
SPV.0105.493	Install State Furnished EVP Equipment (USH 14 & Pontiac)	LS
SPV.0105.494	Install State Furnished EVP Equipment (USH 14 & IH 39 SB)	LS
SPV.0105.495	Install State Furnished EVP Equipment (USH 14 & IH 39 NB)	LS
SPV.0105.496	Install State Furnished EVP Equipment (USH 14 & Deerfield)	LS

Payment is full compensation for installing all EVP detector equipment and cable; installing the mounting hardware and any miscellaneous items necessary to complete the entire system at the specified intersection; coordination with the department for delivery and installation of department furnished components necessary to compete the contract work.

219. Gateway Signage (Northbound), Item SPV.0105.500; Gateway Signage (Southbound), Item SPV.0105.501.

A Description

This special provision describes furnishing and installing Gateway Signage (Location) as shown on the plans and as hereinafter provided.

B Materials

Aluminum medallion and letters

Material: 1/2” thick, 4’-0” x 4’-0” aluminum sheet. Flat single sheet aluminum laser routed City of Janesville medallion.

1/2” thick aluminum sheet(s). Flat laser routed individual letters to compose the word “Janesville” as shown on the plans.

Artwork available upon request. Contact city engineering Manager Mike Payne at (608) 755-3160.

Aluminum alloy 5052-H32.

Colors: Paint all surfaces of medallion and letters the following colors as shown on the plans:

Purple. Pantone Matching System (PMS) #2603

Dark Green. Pantone Matching System (PMS) #3435

Green. Pantone Matching System (PMS) #361

Light Blue. Pantone Matching System (PMS) #284

Finish: Super satin clearcoat finish. Single UV and weather resistant protective coat over all painted surfaces.

Font: Angie Sans Std Regular. All lettering upper case. Lettering dimensions as shown on the plans.

Mounting: Concealed stud mount. Epoxy coated grade 316 stainless steel or aluminum. No projection.

C Construction

Prior to starting any work receive approval from the City of Janesville for the orientation of the Gateway sign.

Layout gateway signage graphic content across front face of wall using template for the positioning of individual aluminum medallion and letters. Space individual letters evenly. Before installation, verify the gateway signage surfaces are clean and free of materials or debris that would impair installation.

Drill holes into concrete wall for concealed stud mount fastening. Epoxy stud mount fasteners in place with clear exterior marine grade, uv-resistant, non-shrink epoxy per manufacturer's recommendations. Flat, flush mount to concrete wall, no projection.

Install medallion and letters level, plumb, true to line and at locations and height indicated in the plans, with sign surfaces free of distortion and other defects in appearance.

Remove temporary protective coverings and strippable films as graphics are installed and properly dispose off-site.

After installation, inspect gateway signage components. Remove any excess epoxy, spots, dirt, blemishes, and debris from gateway signage. Repair damaged finishes to match original finish or replace component.

D Measurement

The department will measure Gateway signage (location) as a single complete lump sum unit of work, acceptably completed, according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.500	Gateway Signage (Northbound)	LS
SPV.0105.501	Gateway Signage (Southbound)	LS

Payment is full compensation for furnishing and installing all materials.

220. Longitudinal Grooving Bridge Deck, Item SPV.0165.700.

A Description

This special provision describes providing longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

B Materials

Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

C Construction

Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider; all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than 1/2-inch wide.

Construct longitudinal grooves with the following criteria:

Width	Depth	Spacing C-C	Width Tolerance	Depth Tolerance	Spacing Tolerance
(In)	(in)	(In)	(In)	(in)	(In)
1/8	3/16	3/4	0 to 1/16	±1/16	±1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

D Measurement

The department will not measure Longitudinal Grooving Bridge Deck. The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.700	Longitudinal Grooving Bridge Deck	SF

Payment for Longitudinal Grooving Bridge Deck is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.

221. Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.851.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

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

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Temporary Wire Faced Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

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

wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

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

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

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

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facings shall be designed according to AASHTO 11.10.2.3. A fine metallic screen and a geotextile shall be used at the front face of the wall to retain the fines of the soil mass.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of the wall. All soil reinforcement layers shall be connected to wire facing panels. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 12 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life, , as described in Chapter 14 of the WisDOT LRFD Bridge Manual and AASHTO LRFD Section 11.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing steel reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the wall to follow the general slope of the ground line. Frost depth shall not be considered.

B.3 Wall System Components

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

B.3.1 Steel Components

Provide steel reinforcement that meets the following requirements:

- Welded Wire Fabric Soil Reinforcement

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration according to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- Steel Reinforcing Strips and Tie Strips

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM A572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A1011 Grade 50.

- Welded Wire Fabric Facing Panels

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration according to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- Fasteners

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

- Connector Pins and Mat Bars

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A82.

- Metallic Screen

Provide a steel metallic screen. The metallic screen should have an approximate opening of 1/4” and be made of 0.025” (minimum) gauge wire.

B.3.2 Geotextile

Geotextile shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporated into the work.

B.3.3 Backfill

Furnish and place backfill for wall as shown on the plans and as herein provided.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

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

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

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

In addition, backfill material shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	5 – 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236[1]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.1)

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

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

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

C Construction

C.1 Excavation and Backfill

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

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, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, 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. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. 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 wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

C.2 Compaction

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

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

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall face. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect welded wire facing and other associated elements according to the wall manufacturer's construction guide. 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. Place remaining courses in vertical or battered positions as shown on the contract plans.

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

When using a temporary wall for four months or more or when the installation of a permanent wall facing will not occur for four months or more after placement of any geotextile material, cover the exposed geotextile material in the wall as quickly as practical, to prevent damage caused by exposure to ultraviolet light.

C.3.2 Tolerances

- The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.
- For battered wire facing, the final deviation from the design batter shall be within ±1 inch for each 10 feet of battered wall height.

C.4 Quality Management Program

C.4.1 Quality Control Plan

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

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

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

C.4.2 Quality Control Personnel

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

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

C.4.3 Equipment

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

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

Conform to ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

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

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

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

(3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.1) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 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.

C.4.6.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

(4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

(1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C.5 Geotechnical Information

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

D Measurement

The department will measure the Temporary Wall Wire Faced Mechanically Stabilized Earth bid items by the square foot acceptably completed at locations the plans show, measured as the area of exposed face in the plane of the wall from the front face ground line of the wall to the retained grade. Temporary Walls used for staged construction in multiple configurations 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
SPV.0165.851	Temporary Wall Wire Faced Mechanically Stabilized Earth LRFD/QMP	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, performing compaction testing; covering geotextile, and for furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work.

Payment limit for all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

222. Wall Modular Block Gravity R-53-46, Item SPV.0165.852.

A Description

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

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Modular Block Gravity Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the facing units shall be furnished to the engineer at least 14 days prior to the project delivery.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the Contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

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

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer.

Walls shall be designed for a minimum live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as shown on the plans.

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

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

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. Internal stability shall also be considered at each block level. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The width of the modular block (front face to back face) shall be included in the design computations and shown on the wall shop drawings. Blocks must have a minimum width of 8 inches.

Block widths may vary among courses, but shall consist of only a single block. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Wall facing units shall be designed according to AASHTO LRFD 11.10.2.3.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on concrete leveling pads. The bottom row of blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad.

Concrete leveling pads shall be as wide as the proposed blocks plus 6 inches, with 6 inches of the leveling pad extending beyond the front face of the blocks. The minimum thickness of the leveling pad shall be 6 inches.

B.3 Wall System Components

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

B.3.1 Wall Facing

Wall facing units shall consist of precast modular concrete blocks. Furnish concrete produced by a dry-cast or wet-cast process. Concrete for all blocks shall not contain less than 565 pounds of cementitious materials per cubic yard. The contractor may use cement conforming to standard spec 501.2.1 or may substitute for portland cement at the time of batching conforming to standard spec 501.2.6 for fly, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30% of the total cementitious content by weight.

Dry-cast concrete blocks shall be manufactured according to ASTM C1372 and this specification.

All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are broken, have cracks wider than 0.02” and longer than 25% of the nominal height of the unit, chips larger than 1”, have excessive efflorescence, or are otherwise deemed unacceptable by the engineer, shall not be used within the wall. A single block front face style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan.

The top course of facing units shall be as noted on the plans, either;

- 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. A cap of this type shall have texture, color, and appearance, as noted on the plans. The vertical dimension of the cap shall not be less than 3 1/2 inches. Expansion joints shall be placed in the cap at a maximum spacing of 20 feet unless noted otherwise on the plan. Use Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Block dimensions may vary no more than ±1/8 inch from the standard values published by the manufacturer. Blocks must have a minimum width (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. The minimum allowed thickness of any other portions of the block is 1¾ inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of holding the wall in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

For concrete leveling pad, use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

B.3.2 Material Testing

Provide independent quality verification testing of project materials according to the following requirements:

Test	Method	Requirement	
		Dry-cast	Wet-cast
Compressive Strength (psi)	ASTM C140	5000 min.	4000 min.
Air Content (%)	AASHTO T152	N/A	6.0 +/-1.5
Water Absorption (%)	ASTM C140	6 max.[3]	N/A
Freeze-Thaw Loss (%) 40 cycles, 5 of 5 samples 50 cycles, 4 of 5 samples	ASTM C1262[1]	1.0 max.[2][3] 1.5 max.[2][3]	N/A

[1] Test shall be run using a 3% saline solution and blocks greater than 45 days old.

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

[3] The independent testing laboratory shall control and conduct all sampling and testing. Prior to sampling, the manufacturer's representative shall identify materials by lot. Five blocks per lot shall be randomly selected for testing. 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. If a random sample of five blocks of any lot tested by the department fails to meet any of the above testing requirements, the entire lot will be considered non-conforming.

The contractor and fabricator shall coordinate with the independent testing agency to ensure that strength and air content samples can be taken appropriately during manufacturing. At the time of delivery of materials, furnish the engineer a certified report of test from an AASHTO-registered or ASTM-accredited independent testing laboratory for each lot.

The certified test report shall include the following:

- Project ID
- Production process used (dry-cast or wet-cast)
- Name and location of testing facility
- Name of sampling technician
- Lot number and lot size

Testing of project materials shall be completed not more than 18 months prior to delivery. Independent testing frequency shall not exceed 5000 blocks for dry-cast blocks and the lesser of 150 CY or 1 day's production for wet-cast 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.

Nonconforming materials will be subject to evaluation according to standard spec 106.5.

B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate Size No. 1 as given in standard spec 501.2.5.4. All backfill placed within a zone from the top 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.

A layer of Geotextile Type “DF” (Schedule B) shall be placed vertically between the backfill and the Type A backfill. The geotextile shall extend from the top of the leveling pad to 6 inches below the surface of the retained soil. The geotextile shall then wrap across the top of the Type A backfill to the back of block wall facing.

Backfill placed between retained soil and Type A backfill shall comply with the requirements for Granular Backfill Grade 1 as contained in standard spec 209.2.2. The Contractor may substitute Type A Backfill for Granular Backfill Grade 1.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the wall and the leveling pad shall be according 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 back of the wall.

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, after compaction. Backfilling shall closely follow erection of each course of wall facing units.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units 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.

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.2 Compaction

Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

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

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

C.3 Wall Components

Erect wall facing units and other associated elements according to the wall manufacturer’s construction guide 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 according to the manufacturer’s directions.

C.4 Geotechnical Information

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

D Measurement

The department will measure Wall Modular Block Gravity by the square foot acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.852	Wall Modular Block Gravity R-53-46	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pad, and leveling pad steps; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

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223. Wall Concrete Panel Mechanically Stabilized Earth, R-53-42, Item SPV.0165.853; Wall Concrete Panel Mechanically Stabilized Earth, R-53-43, Item SPV.0165.854; Wall Concrete Panel Mechanically Stabilized Earth, R-53-44, Item SPV.0165.855; Wall Concrete Panel Mechanically Stabilized Earth, R-53-45, Item SPV.0165.856; Wall Concrete Panel Mechanically Stabilized Earth, R-53-47, Item SPV.0165.857; Wall Concrete Panel Mechanically Stabilized Earth, R-53-48, Item SPV.0165.858; Wall Concrete Panel Mechanically Stabilized Earth, R-53-49, Item SPV.0165.859; Wall Concrete Panel Mechanically Stabilized Earth, R-53-53, Item SPV.0165.860; Wall Concrete Panel Mechanically Stabilized Earth, R-53-54, Item SPV.0165.861; Wall Concrete Panel Mechanically Stabilized Earth, R-53-55, Item SPV.0165.862; Wall Concrete Panel Mechanically Stabilized Earth, R-53-56, Item SPV.0165.863; Wall Concrete Panel Mechanically Stabilized Earth,R-53-57, Item SPV.0165.864; Wall Concrete Panel Mechanically Stabilized Earth, R-53-58, Item SPV.0165.865; Wall Concrete Panel Mechanically Stabilized Earth, R-53-59, Item SPV.0165.866.

A Description

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

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

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department

maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

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

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

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

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

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

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

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

Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

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

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

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

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3” shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a concrete leveling pad. The bottom units shall be horizontal and centered on the leveling pad. The minimum thickness of the leveling pad shall be 6-inches. The minimum width of the leveling pad shall be 12 inches.

B.3 Wall System Components

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

B.3.1 Wall Facing

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

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

For concrete leveling pad, use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

A minimum of two bearing pads shall be used per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80, or high- density polyethylene pads with a minimum density of 0.034 lb/in^3 according to ASTM D1505.

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

The ashlar formliner pattern is based on Minnesota Ashlar #1214.

B.3.2 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

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

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

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

In addition, backfill material shall meet the following requirements.

Test	Method	Value	
		(Galvanized)	(Aluminized Type 2)
pH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	
Angle of Internal Friction	AASHTO T-236[1]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)	

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.3 Soil Reinforcement

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be according to AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be according to ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be according to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

C Construction

C.1 Excavation and Backfill

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

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, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall panels, 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. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. 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 panels. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the panels.

C.2 Compaction

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

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

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect panel facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

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

C.3.2 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.

C3.3 Panel Tolerances

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed ¾-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be ¾-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed ½-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a ¾-inch joint separation between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this gap by the use of bearing pads and/or alignment pins. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

C.4 Quality Management Program

C.4.1 Quality Control Plan

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

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

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

C.4.2 Quality Control Personnel

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

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

C.4.3 Equipment

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

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

Conform to ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

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

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

(3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 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.

C.4.6.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

(4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

(1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C.5 Geotechnical Information

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

D Measurement

The department will not measure Wall Concrete Panel Mechanically Stabilized Earth. The department will use pay plan quantity conforming to standard spec 109.1.1.2. The department computed the plan quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.853	Wall Concrete Panel Mechanically Stabilized Earth, R-53-42	SF
SPV.0165.854	Wall Concrete Panel Mechanically Stabilized Earth, R-53-43	SF
SPV.0165.855	Wall Concrete Panel Mechanically Stabilized Earth, R-53-44	SF
SPV.0165.856	Wall Concrete Panel Mechanically Stabilized Earth, R-53-45	SF
SPV.0165.857	Wall Concrete Panel Mechanically Stabilized Earth, R-53-47	SF
SPV.0165.858	Wall Concrete Panel Mechanically Stabilized Earth, R-53-48	SF
SPV.0165.859	Wall Concrete Panel Mechanically Stabilized Earth, R-53-49	SF
SPV.0165.860	Wall Concrete Panel Mechanically Stabilized Earth, R-53-53	SF
SPV.0165.861	Wall Concrete Panel Mechanically Stabilized Earth, R-53-54	SF
SPV.0165.862	Wall Concrete Panel Mechanically Stabilized Earth, R-53-55	SF
SPV.0165.863	Wall Concrete Panel Mechanically Stabilized Earth, R-53-56	SF
SPV.0165.864	Wall Concrete Panel Mechanically Stabilized Earth, R-53-57	SF
SPV.0165.865	Wall Concrete Panel Mechanically Stabilized Earth, R-53-58	SF
SPV.0165.866	Wall Concrete Panel Mechanically Stabilized Earth, R-53-59	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pad, and leveling pad steps; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

224. Wall Modular Block Gravity Landscape STH 26, Item SPV.0165.867; Wall Modular Block Gravity Landscape Ryan Road, Item SPV.0165.868.

A Description

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

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Modular Block Gravity Landscape Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the facing units shall be furnished to the engineer at least 14 days prior to the project delivery.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the Contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

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

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer.

Walls shall be designed for a minimum live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as shown on the plans.

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

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

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. Internal stability shall also be considered at each block level. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The width of the modular block (front face to back face) shall be included in the design computations and shown on the wall shop drawings. Blocks must have a minimum width of 8 inches. Block widths may vary among courses, but shall consist of only a single block. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Wall facing units shall be designed according to AASHTO LRFD 11.10.2.3.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete or base aggregate leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a concrete leveling pad or base aggregate leveling pad. The bottom row of blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad.

Concrete leveling pads shall be as wide as the proposed blocks plus 6 inches, with 6 inches of the leveling pad extending beyond the front face of the blocks. The minimum thickness of the leveling pad shall be 6 inches.

Base aggregate leveling pads shall be as wide as the blocks plus 12 inches, and the modular blocks shall be centered on the leveling pad. The minimum thickness of the leveling pad shall be 12-inches after compaction. The leveling pad shall be made from base aggregate dense 1 1/4-inch in conformance with standard spec 305.

B.3 Wall System Components

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

B.3.1 Wall Facing

Wall facing units shall consist of precast modular concrete blocks. Furnish concrete produced by a dry-cast or wet-cast process. Concrete for all blocks shall not contain less than 565 pounds of cementitious materials per cubic yard. The contractor may use cement conforming to standard spec 501.2.1 or may substitute for portland cement at the time of batching conforming to standard spec 501.2.6 for fly, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30% of the total cementitious content by weight.

Dry-cast concrete blocks shall be manufactured according to ASTM C1372 and this specification.

All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are broken, have cracks wider than 0.02” and longer than 25% of the nominal height of the unit, chips larger than 1”, have excessive efflorescence, or are otherwise deemed unacceptable by the engineer, shall not be used within the wall. A single block front face style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan.

The top course of facing units shall be as noted on the plans, either;

- 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. A cap of this type shall have texture, color, and appearance, as noted on the plans. The vertical dimension of the cap shall not be less than 3 1/2 inches. Expansion joints shall be placed in the cap at a maximum spacing of 20 feet unless noted otherwise on the plan. Use Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Block dimensions may vary no more than ±1/8 inch from the standard values published by the manufacturer. Blocks must have a minimum width (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. The minimum allowed thickness of any other portions of the block is 1 3/4 inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of holding the wall in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

For concrete leveling pad, use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

For base aggregate leveling pad conform to item 305.0120 Base Aggregate Dense 1 1/4-Inch.

B.3.2 Material Testing

Provide independent quality verification testing of project materials according to the following requirements:

Test	Method	Requirement	
		Dry-cast	Wet-cast
Compressive Strength (psi)	ASTM C140	5000 min.	4000 min.
Air Content (%)	AASHTO T152	N/A	6.0 +/-1.5
Water Absorption (%)	ASTM C140	6 max.[3]	N/A
Freeze-Thaw Loss (%) 40 cycles, 5 of 5 samples 50 cycles, 4 of 5 samples	ASTM C1262[1]	1.0 max.[2][3] 1.5 max.[2][3]	N/A

[1] Test shall be run using a 3% saline solution and blocks greater than 45 days old.

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

[3] The independent testing laboratory shall control and conduct all sampling and testing. Prior to sampling, the manufacturer's representative shall identify materials by lot. Five blocks per lot shall be randomly selected for testing. 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. If a random sample of five blocks of any lot tested by the department fails to meet any of the above testing requirements, the entire lot will be considered non-conforming.

The contractor and fabricator shall coordinate with the independent testing agency to ensure that strength and air content samples can be taken appropriately during manufacturing. At the time of delivery of materials, furnish the engineer a certified report of test from an AASHTO-registered or ASTM-accredited independent testing laboratory for each lot.

The certified test report shall include the following:

- Project ID
- Production process used (dry-cast or wet-cast)
- Name and location of testing facility
- Name of sampling technician
- Lot number and lot size

Testing of project materials shall be completed not more than 18 months prior to delivery. Independent testing frequency shall not exceed 5000 blocks for dry-cast blocks and the lesser of 150 CY or one day's production for wet-cast 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.

Nonconforming materials will be subject to evaluation according to standard spec 106.5.

B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate Size No. 1 as given in standard spec 501.2.5.4. All backfill placed within a zone from the top 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.

A layer of Geotextile Type "DF" (Schedule B) shall be placed vertically between the backfill and the Type A backfill. The geotextile shall extend from the top of the leveling pad to 6 inches below the surface of the retained soil. The geotextile shall then wrap across the top of the Type A backfill to the back of block wall facing.

Backfill placed between retained soil and Type A backfill shall comply with the requirements for Granular Backfill Grade 1 as contained in standard spec 209.2.2. The Contractor may substitute Type A Backfill for Granular Backfill Grade 1.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the wall and the leveling pad shall be according 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 back of the wall.

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, after compaction. Backfilling shall closely follow erection of each course of wall facing units.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units 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.

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.2 Compaction

Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

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

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

C.3 Wall Components

Erect wall facing units and other associated elements according to the wall manufacturer's construction guide 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 according to the manufacturer's directions.

C.4 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan.

D Measurement

The department will measure Wall Modular Block Gravity Landscape (location) by the square foot, acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.867	Wall Modular Block Gravity Landscape STH 26	SF
SPV.0165.868	Wall Modular Block Gravity Landscape Ryan Road	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pad, and leveling pad steps; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for railings, and other items above the wall cap or coping.

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225. Compost, Item SPV.0180.001.

A Description

This special provision describes furnishing and installing compost, for infiltration basins, as shown on the plans or as directed by the engineer and as hereinafter provided.

B Materials

Provide compost that:

1. is a well-decomposed, stable, weed-free, organic, commercially manufactured material resulting from the biological degradation and transformation of plant or animal-derived materials under controlled conditions designed to promote aerobic decomposition.
2. is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
3. is stable with regard to oxygen consumption and carbon dioxide generation.
4. does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
5. does not possess objectionable odors.
6. has a moisture content with no visible free water or dust produced when handling the material.

Compost feedstock may include, but is not limited to, yard waste, clean chipped wood, farm crop residue, farm animal manure, or vegetable food waste. Do not use materials that have been treated with chemical preservatives as a compost feedstock or as wood chips.

Test according to the United States Composting Council's “Test Methods for Examining of Composting and Compost (TMECC)”. Provide compost with the United States Composting Council's Seal of Testing Assurance Program (STA) certification and STA product label. The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Provide quality control documentation that includes the following:

1. The compost technical data sheet with the feedstock by percentage in the final compost product.
2. A certification that the compost meets federal and state health and safety regulations.

3. A copy of the producer's STA certification.
4. A certified report of tests performed by an STA-certified lab, verifying that the compost meets the requirements in the table below.

Compost must comply with the following:

PROPERTY	TEST METHOD	REQUIREMENT
Particle Size	TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis	95% passes through 3/8 inch screen.
pH	TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units	5.5-8.0
Organic Matter/Ash Content	TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis	Minimum 40% organic matter and maximum 60% ash content
Physical Contaminants	TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal %>4mm fraction, dry mass (weight) basis	Less than 1%

Immediately remove from the project compost not conforming to the above requirements or taken from a source other than those tested, and replace the compost at no cost to the department.

The engineer reserves the right to sample compost at the jobsite.

C Construction

C.1 Compost Application

Apply compost to a uniform depth of two inches. Apply compost using an engineer-approved spreader unit (i.e. bulldozer, side discharge manure spreader, etc.) or preferably a pneumatic (blower) unit or other unit that propels the product directly at the soil surface. Apply compost approximately 3 feet beyond and overlapping all edges of the bare soil surfaces designated to receive the compost. Do not apply compost in the months of July and August unless approved by the engineer. Compost installations will retain solar energy, heating the compost beyond the tolerance of the seed, rendering it unviable. Reapplication of seed will be required if sufficient vegetation is not established. Rototill the compost blanket into the existing material to a depth of five inches.

C.2 Maintenance

If the compost blanket will not be rototilled, maintain compost blanket depth until the project has been completed or directed otherwise. Routinely inspect blanket for any material dislodgement. Replace and redress any dislodged material and reseed if necessary. If rutting occurs, regrade after re-rototilling.

If sediment from upgradient of the infiltration area enters the infiltration basin, remove the sediment, place two inches of compost and re-rototill the repaired area to a depth of five inches.

D Measurement

The department will measure Compost by the square yard of material, 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.0180.001	Compost	SY

Payment is full compensation for furnishing, loading, hauling, stockpiling, placing, blending, and rototilling compost.

226. Temporary Erosion Mat Class I Type B, Item SPV.0180.150.

A Description

This item shall be according to the pertinent requirements of standard spec 628 and shall conform to the construction detail shown in the plans.

B Materials

The erosion mat shall be according to the pertinent materials of standard spec 628.

C Construction

Perform work according to standard spec 628.

D Measurement

The department will measure Temporary Erosion Mat Class I Type B 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.0180.150	Temporary Erosion Mat Class I Type B	SY

Payment is according to standard spec 628.5.4 with the following supplement:

Payment is full compensation for removal of the temporary erosion mat.

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 15 *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

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

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 6 *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

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 under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE [DBE] PROGRAM IMPLEMENTATION

1. Description

a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:

(1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.

(2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance. https://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

(1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:

i. Produce accurate and complete quotes.
ii. Understand highway plans applicable to their work.
iii. Understand specifications and contract requirements applicable to their work.
iv. Understand contracting reporting requirements.

(2) Wisconsin DOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

(3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at: https://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.

b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.

c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.

d. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

e. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

a. **Department's DBE Evaluation Process**
WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

b. **Documentation Submittal**
The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form

[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at DBE_Alert@dot.wi.gov (DBE_Alert@dot.wi.gov) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**
If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.

ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:

(a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.

(b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**
If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

b. Prime Contractors should:
   (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
   (2) Prime contractors may request assistance with DBE outreach and follow-up by contacting the department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: DOTDBESupportServices@dot.wi.gov.
   (3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A*. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.
      i. Solicit quotes from certified DBE firms who match 'possible items to subcontract' using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which you are seeking quotes to DOTDBESupportServices@dot.wi.gov.
      ii. SBN is the preferred outreach tool. https://www.bidx.com/wi/main. Other acceptable means include postal mail, email, fax, phone call.
         (a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
         (b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.
         (c) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up solicitation.
      iii. Upon request, provide interested DBE firms with adequate information about plans, specifications and the requirements of the contract by letter, information session, email, phone call and/or referral.
      iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit or insurance if requested.
      v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
         (a) Email to all prospective DBE firms in relevant work areas.
         (b) Phone call log to DBE firms who express interest via written response or call.
         (c) Fax/letter confirmation
         (d) Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.
   (1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, ***a discussion with the DBE firm*** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
   (2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

(3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. “Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as ‘all or none’ quote to the prime.” When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms’ quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.

i. Compare bid items common to both quotes, noting the reasonableness in the price comparison.
ii. Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
(2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
(3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
(4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
(5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

6. Use of Joint Checks

The *use of joint checks is allowable if it is a commonly recognized business practice in* the material industry. A joint check is defined as a two-party check between a DBE, a prime contractor and the regular dealer of materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE in cases where the prime has submitted the DBE and material for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
   (1) Request should be made when the DBE Commitment form or Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
   (2) Approval/Permission must be granted prior to the issuance of any joint checks.
   (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
   (4) The joint check for supplies must be strictly for the cost of supplies.

b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following.
   (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price and delivery of materials;
   (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor,
   (1) The prime agrees to furnish the check used for the payment of materials/supplies under the contract.
   (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractors negotiated unit price.

7. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.

b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

8. Department's Criteria for DBE Participation

Directory of DBE firms

a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:
   https://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

9. Counting DBE Participation

Assessing DBE Work

a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:

b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.

c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.

d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.

e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.

f. It is the prime contractor’s responsibility to determine whether the work that is committed and/or contracted to a DBE certified firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

g. It is the prime contractor’s responsibility to assess the DBE firm’s ability to perform the work for which s/he is committing/contracting the DBE to do. Note that the department encourages the prime contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

10. Commercially Useful Function

a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE is performing a commercially useful function if the following conditions are met:
   (1) For contract work, the DBE is responsible for executing a distinct portion of the contract work and it is carrying out its responsibilities by actually performing, managing, and supervising that work.
   (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at https://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

12. Credit Evaluation for Manufacturers, Suppliers, Brokers

The department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The department will count the material and supplies that a DBE provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

a. Manufacturers
   (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
   (2) If the materials or supplies are obtained from a DBE manufacturer, count **100%** percent of the cost of the materials or supplies toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
   (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
   (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
      i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
      ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

c. Brokers, Transaction Expediters, Packagers, Manufacturers Representatives
   (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit; however, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives or other persons who arrange or expedite transactions.
   (2) Brokerage fees have historically been calculated as **10%** of the purchase amount.
   (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site.
   (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and documentation of the calculations used as the basis for the purchase agreement, subcontract or invoice. *WisDOT recognizes that the amount on the Attachment 'A' form may be more or less than the amount on the invoice*. Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

15. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.

b. DBE credit will be evaluated and confirmed by the DBE Office for any contracts on which the mentor protégé team identifies itself to the DBE Office as a current participant of the Mentor Protégé Program.

c. Refer to WisDOT's Mentor Protégé guidelines for guidance on the number of contracts and amount of DBE credit that can be counted on any WisDOT project.

16. DBE Replacement or Termination

Contractual Requirement

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

Contractor Considerations

a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [DT1506] without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.

c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.

d. In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason or is terminated from a contract, the prime contractor is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.

e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.

(1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
   i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your expectations for successful performance on the contract. Document these efforts in writing.
   ii. If those efforts fail, provide written notice to the DBE subcontractor of your *intent to* request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
   iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
   iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days to respond, in writing. **EXCEPTION:** The prime contractor must provide a verifiable reason for a response period shorter than five days. For example a WisDOT project manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
   v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

The Request to Replace or Terminate a DBE

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.

Examples of Good Causes to Replace a DBE according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract.
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Evaluation and Response to the Request

If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at DBE_Alert@dot.wi.gov or by calling 608-267-3849.

17. DBE Utilization beyond the approved DBE Commitment Form DT1506

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

a. Send an email to the DBE Engineer at DBE_Alert@dot.wi.gov describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.
If the scope change added work for a participating DBE; list the date and reason for the scope change.

b. Forward a complete, signed Attachment 'A' form to the DBE Office at DBE_Alert@dot.wi.gov. A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

18. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

19. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

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

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

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days. Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/default.aspx

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 someone contact me at this number

Prime Contractor 's Contact Person	DBE Contractor Contact Person
Phone:	Phone
Fax:	Fax
Email:	Email

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B
BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Ø Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Ø Participate in speed networking and mosaic exercises as arranged by DBE office.
- Ø Host information sessions not directly associated with a bid letting.
- Ø Participate in a formal mentor protégé or joint venture with a DBE firm.
- Ø Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Ø Facilitate a small group DBE 'training session' Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods.
- Ø Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Ø Quality of communication, not quantity creates the best results. Contractors should 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

- Ø DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Ø Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Ø Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list, and bid tabs at a minimum.
- Ø Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Ø Participate in DBE office assessment programs.
- Ø Participate on advisory and mega-project committees.
- Ø Sign up to receive the DBE Contracting Update.
- Ø Consider membership in relevant industry or contractor organizations.
- Ø Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C
Types of Efforts considered in determining GFE
This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a

contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E
Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription.
Within the Small Business Network, Prime Contractors can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.

2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request.
    d. Add attachments to sub-quotes.

3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.

4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.

2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
    c. Add attachments to a sub-quote.

3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.

4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.

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

6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to www.bidx.com 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 PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $2.15 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1\right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

107.17.1 General

Replace paragraph seven with the following effective with the December 2018 letting:

(7) Have a professional engineer registered in the state of Wisconsin sign and seal the shop drawings. At least 30 calendar days before starting falsework, form, or shoring construction; submit a PDF file of shop drawings to the railroad's chief engineering officer and to the engineer. The engineer and the railroad may review the shop drawings. If the engineer or the railroad finds the shop drawings unsatisfactory, the contractor shall make the required changes. A satisfactory shop drawing review does not relieve the contractor of responsibility and liability for the structural integrity and proper functioning of the falsework, forms, or shoring.

305.2.1 General

Replace paragraph two with the following effective with the December 2018 letting:

(2) Where the contract specifies or allows 1 1/4-inch base, do not place reclaimed asphalt, reprocessed material, or blended materials below virgin aggregate materials unless the contract specifies or the engineer allows in writing. The department will allow virgin aggregate above reclaimed asphalt, reprocessed material, or blended materials in shoulder areas adjacent to concrete pavement.

420.3.2.1 General

Replace paragraph one with the following effective with the December 2018 letting:

(1) Use self-propelled grinding machines with depth, grade, and slope controls designed for grinding and texturing concrete. Equip grinding machines with diamond blades and a vacuuming system capable of removing liquid and solid residue from the ground surface. Shroud the machine to prevent discharging loosened material into adjacent work areas or live traffic lanes. Provide the specified effective wheelbase, defined as the center of the front to center of the rear main support wheels.

420.3.2.2 Continuous Grinding

Replace paragraph one with the following effective with the December 2018 letting:

(1) Under the Continuous Diamond Grinding Concrete Pavement bid item, ensure that the grinding machine, including the grinding head, weighs 35,000 pounds or more, will grind a strip at least 4 feet wide, and has an effective wheel base of 25 feet or more. For pavements with a design speed less than 40 miles per hour and areas difficult to access, the contractor may use equipment with an effective wheel base of 12 feet or more.

450.3.2.8 Jointing

Replace paragraphs three through five with the following effective with the December 2018 letting:

(3) Construct notched wedge longitudinal joints for mainline paving if the pavement thickness conforms to the minimums specified in 460.3.2, unless the engineer directs or allows an alternate joint. Construct the wedge using a slope no steeper than 3:1. Extend the wedge 12 inches beyond the normal lane width, or as the engineer directs. Ensure that the wedge for all layers directly overlaps and slopes in the same direction.

(4) Locate the joint at the pavement centerline for 2-lane roadways, or at lane lines if the roadway has more than 2 lanes. Construct a vertical notch 1/2-inch to 3/4-inch high on the centerline or lane line at the top of each wedge. Place a 1/2-inch to 3/4-inch notch at the outside bottom edge of the wedge after compacting each layer. Align the finished longitudinal joint line of the upper layer with the centerline or lane line.

(5) Construct the wedge for each layer using an engineer-approved strike-off device that will provide a uniform slope and will not restrict the main screed. Shape and compact the wedge with a weighted

steel side roller wheel the same width as the wedge. Apply a tack coat to the wedge surface and both notches before placing the adjacent lane.

455.2.4.3 Emulsified Asphalts

Replace paragraph two with the following effective with the December 2018 letting:

(2) The bill of lading for emulsified asphalts shall indicate the asphalt content of the original emulsion and dilution rate of the additional water added to the original emulsion. If undiluted samples are not available, test the diluted material and modify AASHTO M140, M208, or M316 to reflect properties resulting from dilution of the asphalt.

460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph three with the following effective with the December 2018 letting:

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

Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.

Maximum specific gravity (G_{mm}) according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

Asphalt content by ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164, or Asphalt Analyzer™ according to manufacturer recommendations.

460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2018 letting:

(1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.
- Asphalt content is within minus 0.3 percent of the JMF.

460.2.8.3.1.7 Dispute Resolution

Replace paragraph one with the following effective with the December 2018 letting:

(1) When QV test results do not meet the specified limits for 100 percent pay, the bureau's AASHTO accredited laboratory and certified personnel will referee test the retained portion of the QV sample and the retained portion of the required forward and backward QC retained samples according to CMM 8-36.

460.5.2.1 General

Replace paragraphs five and six with the following effective with the December 2018 letting:

(5) The department will reduce pay for nonconforming QMP HMA mixtures as specified in 460.2.8.2.1.7, starting from the stop point to the point when the running average of 4 is back inside the warning limits. The engineer will determine the quantity of material subject to pay reduction based on the testing data and an inspection of the completed pavement. The department will reduce pay as follows:

PAYMENT FOR MIXTURE[1] [2] [3]

ITEM	PRODUCED WITHIN WARNING BANDS	PRODUCED OUTSIDE JMF LIMITS
Gradation	90%	75%
Asphalt Content[4]	___	___
Air Voids	70%	50%
VMA	90%	75%

[1] For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.

[2] Payment is in percent of the contract unit price for the HMA Pavement bid item. The department will reduce pay based on the nonconforming property with lowest percent pay. If the quantity of material subject to pay adjustment based on the running average of 4 is also subject to pay adjustment resulting from dispute resolution in accordance with 460.2.8.3.1.7, the department will apply the single pay adjustment resulting in the lowest percent pay.

[3] In addition to any pay adjustment listed in the table above, the department will adjust pay for nonconforming binder under the Nonconforming QMP Asphaltic Material administrative item. The department will deduct 25 percent of the contract unit price of the HMA Pavement bid item per ton of pavement placed with nonconforming PG binder the engineer allows to remain in place.

[4] The department will not adjust pay based on a running average of 4 asphalt content tests; however, corrective action will be applied to nonconforming material according to 460.2.8.2.1.7.

(6) If during a QV dispute resolution investigation the department discovers unacceptable mixture defined by one or more of the following:

- Va greater than 5.0 or less than 1.5.
- VMA more than 1.0 below the minimum allowed in table 460-1.
- AC more than 0.5 % below the JMF target.

Remove and replace the material, or if the engineer allows the mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

506.3.2 Shop Drawings

Replace paragraph four with the following effective with the December 2018 letting:

(4) Ensure that the fabricator submits a PDF file of shop drawings for railroad structures to the railroad company's chief engineering officer upon contract completion.

650.3.1 General

Replace the entire text with the following effective with the December 2018 letting:

(1) Department and contractor responsibilities for construction staking are specified in 105.6. Conform to 105.6 and the additional requirements specified here in 650.3 for the individual contractor-staking bid items the contract includes.

(2) Protect and preserve known property and survey marks and land monuments as specified in 107.11.3. The contract may require related work under the 621 bid items.

(3) Obtain or calculate benchmark data, grades, and alignment from plan information. The engineer will furnish data for the horizontal and vertical control points, control point ties, horizontal alignments, profiles, and elevations. Reestablish, set additional, and maintain the horizontal and vertical control points and control point ties, as needed for bid items.

(4) Check horizontal and vertical information including but not limited to alignments, locations, elevations, and dimensions, that either the plans show or the engineer provides, for compatibility with existing field conditions. Conduct similar compatibility checks and accuracy checks of horizontal and vertical positions either the department or the contractor establishes in the field.

(5) Perform survey work using conventional methods, or AMG methods capable of achieving the lines and grades the plans show for the work in question. Establish additional benchmarks and control points as necessary to support the method of operation.

650.3.1.1 Staking

(1) Furnish, set, reference, and maintain stakes and markings necessary to establish the alignment, location, benchmarks, elevations, and continuous profile-grades for road and structure work as needed for bid items. Supervise and coordinate construction staking.

(2) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. Make the survey notes and computations available to the engineer within 24 hours, upon request, as the work progresses.

(3) Furnish surveying equipment, stakes, flags, pins, lath, whiskers, and other materials necessary to perform this work, subject to the engineer's approval.

650.3.1.2 Automated Machine Guidance

650.3.1.2.1 General

(1) The contractor may substitute AMG for conventional staking on all or part of the work under the individual staking bid items. Coordinate with the engineer throughout the course of construction to ensure that work performed using AMG conforms to the contract tolerances and that the methods employed conform to the contractor's AMG work plan and accepted industry standards. Revert to conventional staking methods for all or part of the work at any point during construction if AMG is producing unacceptable results.

650.3.1.2.2 AMG Work Plan

(1) Submit a comprehensive written AMG work plan for department review at least 5 business days before the preconstruction conference. In that plan discuss how AMG technology will be integrated into other technologies employed on the project. List the staking bid items that will have work performed using AMG and, for each bid item listed, include the following:

1. Designate which portions of the contract will be done using AMG and which portions will be done using conventional staking.
2. Designate a single staff person as the primary contact for AMG technology issues.
3. List and map the primary and secondary control points required under 105.6.2 enveloping the site.
4. Describe the contractor's quality control procedures. Include the frequency and type of checks performed to ensure that the work conforms to the contract plans.

(2) The engineer will review the plan to determine if it conforms to the contract. Do not perform AMG work until the engineer approves the governing portion of the AMG workplan. Perform the work as the contractor's AMG work plan provides. Update the plan as necessary.

650.3.1.2.3 Geometric and Surface Information

650.3.1.2.3.1 Department Responsibilities

(1) At any time after the contract is awarded the contractor may request the contractor data packet. The department will provide the packet within 5 business days of receiving the contractor's request.

650.3.1.2.3.2 Contractor Responsibilities

(1) Develop and maintain a contractor construction model for areas of the project employing AMG. Confirm that the resulting model agrees with the contract plans.

(2) If the engineer requests, provide the construction model to the department in LandXML or other engineer-approved format.

650.3.1.2.4 Managing and Updating Information

(1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.

(2) Revise the construction model as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised construction model agrees with the contract plan revisions. If the engineer requests, provide construction model updates to the engineer. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.1.2.5 Construction Checks

(1) Check the work against the plan elevation at randomly selected points on cross-sections located at stations evenly divisible by 100 at the frequency the engineer approved as a part of the AMG work plan. Submit the results of these random checks to the engineer daily. Notify the engineer immediately if a check exceeds the tolerances specified in 650.3.1.2.6 below.

(2) Check the work at additional points as the engineer directs. The department may conduct periodic independent checks.

650.3.1.2.6 Construction Tolerances

(1) Ensure that the finished work vertically matches existing or other completed features. Ensure that the work conforms to revised plan elevations as follows:

- Subgrade : +/- 0.10 feet.
- Base : within the tolerance specified in 301.3.4.1(2).

650.3.3 Subgrade

Retitle and replace the entire text with the following effective with the December 2018 letting:

650.3.3 Subgrade Staking

(1) Set construction stakes or marks at intervals of 100 feet, or more frequently, for rural sections and at intervals of 50 feet, or more frequently, for urban sections. Include additional stakes at each cross-section as necessary to match the plan cross-section, achieve the required accuracy, and to support construction operations. Also set and maintain stakes as necessary to establish the horizontal and vertical positions of intersecting road radii, auxiliary lanes, horizontal and vertical curves, and curve transitions. Locate stakes to within 0.25 feet horizontally and establish the grade elevation to within 0.03 feet vertically.

Errata

520.3.3 Laying Pipe

Correct errata by replacing "sections" with "joints" to clarify the intent that the last 3 joints need ties.

(5) Provide joint ties on the upstream and downstream ends of circular and horizontal elliptical concrete culvert and concrete cattle pass installations. Tie the next 3 pipe joints or, if using apron endwalls, the endwall joint and the last 2 pipe joints. Ties are not required on culverts with masonry endwalls unless the plans show otherwise.

608.3.3 Laying Pipe

Correct errata by replacing "sections" with "joints" to clarify the intent that the last 3 joints need ties.

(5) Provide joint ties on concrete storm sewer system infall and outfall pipes. Tie the last 3 pipe joints or, if using apron endwalls, the endwall joint and the next 2 pipe joints. Ties are not required on installations with masonry endwalls unless the plans show otherwise.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

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:

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

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

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
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 contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

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

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

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

* * * * *

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

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

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

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

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

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

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

Non-discrimination Provisions

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

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

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

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

Pertinent Non-Discrimination Authorities:

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

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

SEPTEMBER 2002

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

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

https://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

Effective February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Effective with December 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS FOR PROJECTS WITH FEDERAL AID

I. PREVAILING WAGE RATES

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

II. COVERAGE OF TRUCK DRIVERS

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. https://www.dol.gov/whd/FOH/FOH_Ch15.pdf
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work."
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:
https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf
https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. RESOURCES

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

General Decision Number: WI180010 10/12/2018 WI10

Superseded General Decision Number: WI20170010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018
1	05/18/2018
2	05/25/2018
3	06/15/2018
4	06/22/2018
5	07/20/2018
6	08/03/2018
7	08/31/2018
8	09/28/2018
9	10/12/2018

BRWI0001-002 06/01/2017

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.03	22.40

BRWI0002-002 06/01/2017

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.07	20.67

BRWI0002-005 06/01/2017

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 34.87	21.46

BRWI0003-002 06/01/2017

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.41	22.02

BRWI0004-002 06/01/2017

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.79	22.99

BRWI0006-002 06/01/2017

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.25	21.18

BRWI0007-002 06/01/2017

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.77	22.37

BRWI0008-002 06/01/2017

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.25	22.10

BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0019-002 06/01/2017

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.17	22.26

BRWI0034-002 06/01/2017

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.74	22.40

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except

area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 06/04/2018

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 34.21	20.46

ELEC0014-007 06/05/2018

REMAINING COUNTIES

	Rates	Fringes

Teledata System Installer
Installer/Technician.....$ 26.25 13.92

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2017

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 38.50	30%+10.57

ELEC0158-002 06/04/2018

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:	$ 32.50	19.68

ELEC0159-003 06/01/2018

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:	$ 39.04	21.56

ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63
Electrical contracts under $180,000	$ 30.18	18.42

ELEC0242-005 05/16/2018

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 36.85	26.17

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* ELEC0388-002 06/03/2018

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes

Electricians:.....$ 32.55 19.02

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* ELEC0430-002 06/01/2018

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	$ 38.78	21.49

ELEC0494-005 06/01/2018

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	$ 39.31	24.69

ELEC0494-006 06/01/2018

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	$ 33.40	22.08

ELEC0494-013 06/01/2018

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	$ 19.56	17.74
Technician.....	$ 28.99	19.15

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2018

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	$ 32.18	18.59

ELEC0890-003 06/01/2018

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 34.15	19.63

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-005 06/04/2018

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 40.72	22.10
Group 2	$ 40.22	22.10
Group 3	$ 39.72	22.10
Group 4	$ 39.46	22.10
Group 5	$ 39.17	22.10
Group 6	$ 33.27	22.10

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

IRON0008-002 06/01/2017

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 31.24	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2017

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.19	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2017

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 34.50	23.82

IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 36.29	30.77

IRON0512-008 05/01/2017

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.50	26.45

IRON0512-021 05/01/2017

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.04	26.45

LABO0113-002 06/04/2018

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.88	21.76
Group 2	$ 28.03	21.76
Group 3	$ 28.23	21.76
Group 4	$ 28.38	21.76
Group 5	$ 28.53	21.76
Group 6	$ 24.37	21.76

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/04/2018

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.13	21.76
Group 2	$ 27.23	21.76
Group 3	$ 27.28	21.76
Group 4	$ 27.48	21.76
Group 5	$ 27.33	21.76
Group 6	$ 24.22	21.76

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/04/2018

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.94	21.76
Group 2	$ 27.09	21.76
Group 3	$ 27.29	21.76
Group 4	$ 27.26	21.76
Group 5	$ 27.59	21.76
Group 6	$ 24.08	21.76

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/04/2018

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.80	17.20
Group 2	$ 31.90	17.20
Group 3	$ 31.95	17.20
Group 4	$ 32.15	17.20
Group 5	$ 32.00	17.20
Group 6	$ 28.43	17.20

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter

(Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/04/2018

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 32.08	17..20
Group 2	$ 32.18	17..20
Group 3	$ 32.23	17..20
Group 4	$ 32.43	17..20
Group 5	$ 32.28	17..20
Group 6	$ 28.43	17..20

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 30.33	17.27
Spray, Sandblast, Steel	$ 30.93	17.27
Repaint:		
Brush, Roller	$ 28.83	17.27
Spray, Sandblast, Steel	$ 29.43	17.27

PAIN0108-002 06/01/2017

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 33.74	18.95
Spray & Sandblast	$ 34.74	18.95

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2017

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 30.60	22.80
Brush	$ 30.25	22.80
Spray & Sandblast	$ 31.00	22.80

PAIN0802-002 06/01/2017

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 28.25	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2017

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 24.89	12.05

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 33.74	18.95
Spray	$ 34.74	18.95
Structural Steel	$ 33.89	18.95

PAIN1011-002 06/01/2017

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.86	12.23

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2018

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 28.12	21.20
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic	$ 28.27	21.20
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: WI180002 10/12/2018 WI2

Superseded General Decision Number: WI20170002

State: Wisconsin

Construction Type: Building

County: Marathon County in Wisconsin.

BUILDING CONSTRUCTION PROJECTS (does not include residential construction consisting of single family homes and apartments up to and including 4 stories)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/05/2018
1	02/02/2018
2	05/25/2018
3	07/13/2018
4	08/03/2018
5	10/12/2018

ASBE0205-010 06/01/1998

	Rates	Fringes
Asbestos Removal worker/hazardous material handler: Includes preparation, wetting, stripping, removal, scrapping vacuuming, bagging and disposing of all insulation materials from mechanical systems whether they contain asbestos or not	$ 16.56	3.10

BOIL0107-001 01/01/2017

	Rates	Fringes
BOILERMAKER		
Boilermaker	$ 35.65	29.89
Small Boiler Repair (under 25,000 lbs/hr)	$ 26.91	16.00

BRWI0006-003 06/01/2017

	Rates	Fringes
BRICKLAYER		
Bricklayer, Cement Mason, Tile Layer	$ 33.25	21.18

CARP0252-001 06/01/2016

	Rates	Fringes
CARPENTER (Including Drywall		

Hanging, Acoustical work,
Excluding Batt Insulation)

CARPENTER & SOFT FLOOR LAYER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVERMAN	$ 34.12	18.00

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* ELEC0388-001 06/03/2018

	Rates	Fringes
ELECTRICIAN	$ 32.55	19.02

ELEV0132-001 01/01/2018

	Rates	Fringes
ELEVATOR MECHANIC	$ 50.47	32.645

FOOTNOTE:
PAID VACATION: Employer contributes 8% of basic hourly rate as vacation pay for employees with more than 5 years or more of service, and 6% for less than 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0139-002 06/04/2018

	Rates	Fringes
OPERATOR: Power Equipment		
Group 1	$ 40.72	21.60
Group 2	$ 39.47	21.60
Group 3	$ 38.17	21.60
Group 4	$ 37.64	21.60
Group 5	$ 35.57	21.60
Group 6	$ 34.04	21.60

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" Protection: $3.00 per hour
EPA Level "B" Protection: $2.00 per hour
EPA Level "C" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of over 100 tons; Cranes, Tower Cranes, and Derricks with boom, leads and/or jib lengths 176 ft or longer.

GROUP 2: Backhoes (Excavators) weighing 130,000 lbs & over; Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths 175 ft or less; Caisson Rigs; Pile Driver

GROUP 3: Backhoes (Excavators) weighing under 130,000 lbs; Travelling Crane (bridge type); Milling Machine; Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Laser Screed; Concrete Grinder and Planing Machine; Slipform Curb and Gutter Machine; Boring Machine (Directional); Dredge Operator; Skid Rigs; Over 46 meter Concrete Pump.

GROUP 4: Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 10 tons or less; Tractor, Bulldozer, or End Loader (over 40 hp); Motor Patrol; Scraper Operator; Bituminous Plant and Paver Operator; Screed-Milling Machine; Roller over 5 tons; Concrete Pumps 46 meter & under; Grout Pumps; Rotec Type Machine; Hydro Blaster, 10,000 psi and over; Rotary Drill Operator; Percussion Drilling Machine; Air Track Drill with or without integral hammer; Blaster; Boring Machine (vertical or horizontal); Side Boom; Trencher, wheel type or chain type having 8 inch or larger bucket; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Straddle Carrier; Material Hoists; Stack Hoist; Man Hoists; Mechanic and Welder; Off Road Maaerial Haulers

GROUP 5: Tractor, Bulldozer, or Endloader (under 40 hp); Tampers -Compactors, riding type; Stump Chipper, large; Roller, Rubber Tire; Backfiller; Trencher, chain type (bucket under 8 inch); Concrete Auto Breaker, large; Concrete Finishing Machine (road type); Concrete Batch Hopper; Concrete Conveyor Systems; Concrete Mixers, 14S or over; Pumps, Screw Type and Gypsum); Hydrohammers, small; Brooms and Sweeeprs; Lift Slab Machine; Roller under 5 tons; Industrial Locomotives; Fireman (Pile Drivers and Derricks); Pumps (well points); Hoists, automatic; A-Frames and Winch Trucks; Hoists (tuggers); Boats (Tug, Safety, Work Barges and Launches); Assistant Engineer

GROUP 6: Shouldering Machine Operator; Farm or Industrial Tractor mounted equipment; Post Hole Digger; Auger (vertical and horizontal); Skid Steer Loader with or without attachments; Robotic Tool Carrier with or without attachments; Power Pack Vibratory/Ultra Sound Driver and Extractor; Fireman (Asphalt Plants); Screed Operator; Stone Crushers and Screening Plants; Air, Electric, Hydraulic Jacks (Slip Form); Prestress Machines; Air Compressor, 400 CFM or over; Refrigeration Plant/Freese Machine; Boiler Operators (temporary heat); Forklifts; Welding Machines; Generators; Pumps over 3"; Compressors, under 400 CFM; Heaters, Mechanical; Combination small equipment operator; Winches, small electric; Oiler; Greaser; Rotary Drill Tender; Conveyor; Elevator Operator

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IRON0383-002 06/01/2017

	Rates	Fringes
IRONWORKER	$ 34.50	23.82

LABO0330-004 06/04/2018

	Rates	Fringes
Asbestos Abatement/Hazardous Waste (Preparation, removal, and Encapsulation of hazardous materials from non-mechanical systems)	$ 25.88	17.20
Laborer, General	$ 27.38	17.20

NOTE: Mason Tender $.25 over general laborer.

PAIN0802-005 06/01/2017

	Rates	Fringes
Painters:	$ 24.89	12.05
Brush, Roller, Spray, and Drywall Finishing	$ 28.55	17.72

PAIN1204-001 06/01/2017

	Rates	Fringes
GLAZIER	$ 28.34	19.65

PLUM0434-001 06/03/2018

	Rates	Fringes
PLUMBER/PIPEFITTER (Including HVAC work)	$ 40.15	18.57

SFWI0669-002 04/01/2016

	Rates	Fringes
SPRINKLER FITTER	$ 39.48	19.36

SHEE0018-005 05/27/2018

	Rates	Fringes
SHEET METAL WORKER (Including HVAC work)		

Contracts $120,000 or less	$ 20.57	11.60
Contracts over $120,000	$ 31.08	27.28

TEAM0662-001 06/01/2018

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 28.12	21.20
3 or more Axles	$ 28.27	21.20

SUWI2002-003 01/23/2002

	Rates	Fringes
Asbestos Worker/Heat and Frost Insulator	$ 25.36	8.37
Laborers:		
Concrete Worker	$ 16.34	3.59
Landscape	$ 8.73	4.90
ROOFER	$ 18.01	3.28
Tile & Marble Finisher	$ 13.89	8.20

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the

most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

August 2018

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least $1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	163.000 STA	_____.____	_____.____
0004	201.0205 Grubbing	163.000 STA	_____.____	_____.____
0006	203.0100 Removing Small Pipe Culverts	88.000 EACH	_____.____	_____.____
0008	203.0200 Removing Old Structure (station) 001. STA. 922+11 'SB'	LS	LUMP SUM	_____.____
0010	203.0200 Removing Old Structure (station) 002. STA. 921+58	LS	LUMP SUM	_____.____
0012	203.0200 Removing Old Structure (station) 003. STA 963+07 'SB'	LS	LUMP SUM	_____.____
0014	203.0200 Removing Old Structure (station) 004. STA 963+31	LS	LUMP SUM	_____.____
0016	203.0200 Removing Old Structure (station) 005. STA 982+88 'SB'	LS	LUMP SUM	_____.____
0018	203.0200 Removing Old Structure (station) 006. STA 983+02	LS	LUMP SUM	_____.____
0020	203.0200 Removing Old Structure (station) 007. 1014+80'SB'	LS	LUMP SUM	_____.____
0022	203.0200 Removing Old Structure (station) 008. 1015+06.71	LS	LUMP SUM	_____.____
0024	203.0225.S Debris Containment (structure) 001. B-53-65	LS	LUMP SUM	_____.____
0026	203.0225.S Debris Containment (structure) 002. B-53-66	LS	LUMP SUM	_____.____
0028	203.0225.S Debris Containment (structure) 003. B-53-85	LS	LUMP SUM	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0030	203.0225.S Debris Containment (structure) 004. B-53-86	LS	LUMP SUM	_____.____
0032	203.0225.S Debris Containment (structure) 005. B-53-83	LS	LUMP SUM	_____.____
0034	203.0225.S Debris Containment (structure) 006. B-53-84	LS	LUMP SUM	_____.____
0036	204.0100 Removing Pavement	188,649.000 SY	_____.____	_____.____
0038	204.0110 Removing Asphaltic Surface	2,583.000 SY	_____.____	_____.____
0040	204.0150 Removing Curb & Gutter	17,203.000 LF	_____.____	_____.____
0042	204.0155 Removing Concrete Sidewalk	3,289.000 SY	_____.____	_____.____
0044	204.0157 Removing Concrete Barrier	205.000 LF	_____.____	_____.____
0046	204.0165 Removing Guardrail	9,548.000 LF	_____.____	_____.____
0048	204.0170 Removing Fence	31,862.000 LF	_____.____	_____.____
0050	204.0180 Removing Delineators and Markers	140.000 EACH	_____.____	_____.____
0052	204.0185 Removing Masonry	4.000 CY	_____.____	_____.____
0054	204.0195 Removing Concrete Bases	134.000 EACH	_____.____	_____.____
0056	204.0210 Removing Manholes	22.000 EACH	_____.____	_____.____
0058	204.0220 Removing Inlets	145.000 EACH	_____.____	_____.____
0060	204.0245 Removing Storm Sewer (size) 001. 12-Inch	2,553.000 LF	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	204.0245 Removing Storm Sewer (size) 002. 15-Inch	1,927.000 LF	_____.____	_____.____
0064	204.0245 Removing Storm Sewer (size) 003. 18-Inch	5,331.000 LF	_____.____	_____.____
0066	204.0245 Removing Storm Sewer (size) 004. 24-Inch	1,666.000 LF	_____.____	_____.____
0068	204.0245 Removing Storm Sewer (size) 005. 19X30-Inch	133.000 LF	_____.____	_____.____
0070	204.0245 Removing Storm Sewer (size) 006. 30-Inch	697.000 LF	_____.____	_____.____
0072	204.0245 Removing Storm Sewer (size) 007. 36-Inch	462.000 LF	_____.____	_____.____
0074	204.0245 Removing Storm Sewer (size) 008. 42-Inch	184.000 LF	_____.____	_____.____
0076	204.0275 Closing Culvert Pipes	10.000 EACH	_____.____	_____.____
0078	204.0291.S Abandoning Sewer	203.000 CY	_____.____	_____.____
0080	204.9060.S Removing (item description) 001. Removing One Sided Vertical Panels	65.000 EACH	_____.____	_____.____
0082	204.9060.S Removing (item description) 002. Removing Gates Pipe Single Leaf	1.000 EACH	_____.____	_____.____
0084	204.9090.S Removing (item description) 001. Removing Discontinued Gas Main Steel Pipe 8-Inch	449.000 LF	_____.____	_____.____
0086	204.9090.S Removing (item description) 002. Removing Discontinued Gas Main Steel Pipe 12-Inch	111.000 LF	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0088	204.9090.S Removing (item description) 003. Removing Discontinued Water Main Ductile Iron Pipe 16-Inch	420.000 LF	_____.____	_____.____
0090	204.9090.S Removing (item description) 004. Removing Discontinued Sanitary Main Concrete Pipe 10-Inch	120.000 LF	_____.____	_____.____
0092	204.9105.S Removing (item description) 001. Removing Temporary Overhead Electrical Feed	LS	LUMP SUM	_____.____
0094	204.9180.S Removing (item description) 001. Removing Concrete Flumes	390.000 SY	_____.____	_____.____
0096	205.0100 Excavation Common	894,098.000 CY	_____.____	_____.____
0098	206.1000 Excavation for Structures Bridges (structure) 001. B-53-0338	LS	LUMP SUM	_____.____
0100	206.1000 Excavation for Structures Bridges (structure) 002. B-53-0339	LS	LUMP SUM	_____.____
0102	206.1000 Excavation for Structures Bridges (structure) 003. B-53-0371	LS	LUMP SUM	_____.____
0104	206.1000 Excavation for Structures Bridges (structure) 004. B-53-0341	LS	LUMP SUM	_____.____
0106	206.1000 Excavation for Structures Bridges (structure) 005. B-53-0342	LS	LUMP SUM	_____.____
0108	206.1000 Excavation for Structures Bridges (structure) 006. B-53-0343	LS	LUMP SUM	_____.____
0110	206.1000 Excavation for Structures Bridges (structure) 007. B-53-0344	LS	LUMP SUM	_____.____
0112	206.1000 Excavation for Structures Bridges (structure) 008. B-53-0345	LS	LUMP SUM	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0114	206.1000 Excavation for Structures Bridges (structure) 009. B-53-0346	LS	LUMP SUM	_____.____
0116	206.1000 Excavation for Structures Bridges (structure) 010. B-53-0347	LS	LUMP SUM	_____.____
0118	206.3000 Excavation for Structures Retaining Walls (structure) 001. R-53-0058	LS	LUMP SUM	_____.____
0120	206.3000 Excavation for Structures Retaining Walls (structure) 002. R-53-0059	LS	LUMP SUM	_____.____
0122	208.1100 Select Borrow	143,452.000 CY	_____.____	_____.____
0124	209.1500 Backfill Granular Grade 1	37,635.000 TON	_____.____	_____.____
0126	210.1500 Backfill Structure Type A	9,230.000 TON	_____.____	_____.____
0128	211.0200 Prepare Foundation for Concrete Pavement (project) 001. 1005-10-77	LS	LUMP SUM	_____.____
0130	211.0400 Prepare Foundation for Asphaltic Shoulders	11.000 STA	_____.____	_____.____
0132	213.0100 Finishing Roadway (project) 001. 1005-10-77	1.000 EACH	_____.____	_____.____
0134	213.0100 Finishing Roadway (project) 002. 1005-10-87	1.000 EACH	_____.____	_____.____
0136	213.0100 Finishing Roadway (project) 003. 5569-00-71	1.000 EACH	_____.____	_____.____
0138	305.0110 Base Aggregate Dense 3/4-Inch	10,500.000 TON	_____.____	_____.____
0140	305.0120 Base Aggregate Dense 1 1/4-Inch	286,417.000 TON	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0142	305.0130 Base Aggregate Dense 3-Inch	14,820.000 TON	_____.____	_____.____
0144	310.0110 Base Aggregate Open-Graded	750.000 TON	_____.____	_____.____
0146	312.0110 Select Crushed Material	412,470.000 TON	_____.____	_____.____
0148	405.0100 Coloring Concrete WisDOT Red	575.000 CY	_____.____	_____.____
0150	405.0200 Coloring Concrete Custom	1,106.000 CY	_____.____	_____.____
0152	415.0090 Concrete Pavement 9-Inch **P**	2,050.000 SY	_____.____	_____.____
0154	415.0100 Concrete Pavement 10-Inch **P**	155,407.000 SY	_____.____	_____.____
0156	415.0110 Concrete Pavement 11-Inch **P**	11,200.000 SY	_____.____	_____.____
0158	415.0120 Concrete Pavement 12-Inch **P**	15,900.000 SY	_____.____	_____.____
0160	415.0130 Concrete Pavement 13-Inch **P**	203,800.000 SY	_____.____	_____.____
0162	415.0210 Concrete Pavement Gaps	15.000 EACH	_____.____	_____.____
0164	415.0410 Concrete Pavement Approach Slab **P**	3,120.000 SY	_____.____	_____.____
0166	415.1100 Concrete Pavement HES 10-Inch **P**	7,512.000 SY	_____.____	_____.____
0168	415.6000.S Rout and Seal	22,109.000 LF	_____.____	_____.____
0170	416.0160 Concrete Driveway 6-Inch **P**	136.000 SY	_____.____	_____.____
0172	416.0512 Concrete Truck Apron 12-Inch	800.000 SY	_____.____	_____.____
0174	416.0610 Drilled Tie Bars	1,978.000 EACH	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0176	416.0620 Drilled Dowel Bars	851.000 EACH	_____.____	_____.____
0178	416.1010 Concrete Surface Drains **P**	26.000 CY	_____.____	_____.____
0180	416.1110 Concrete Shoulder Rumble Strips	64,200.000 LF	_____.____	_____.____
0182	450.4000 HMA Cold Weather Paving	1,270.000 TON	_____.____	_____.____
0184	455.0605 Tack Coat	5,608.000 GAL	_____.____	_____.____
0186	460.2000 Incentive Density HMA Pavement	17,482.000 DOL	1.00000	17,482.00
0188	460.5223 HMA Pavement 3 LT 58-28 S	2,434.000 TON	_____.____	_____.____
0190	460.5224 HMA Pavement 4 LT 58-28 S	7,051.000 TON	_____.____	_____.____
0192	460.6223 HMA Pavement 3 MT 58-28 S	3,780.000 TON	_____.____	_____.____
0194	460.6424 HMA Pavement 4 MT 58-28 H	3,000.000 TON	_____.____	_____.____
0196	460.7223 HMA Pavement 3 HT 58-28 S	7,057.000 TON	_____.____	_____.____
0198	460.7224 HMA Pavement 4 HT 58-28 S	131.000 TON	_____.____	_____.____
0200	460.7424 HMA Pavement 4 HT 58-28 H	4,909.000 TON	_____.____	_____.____
0202	465.0105 Asphaltic Surface	105.000 TON	_____.____	_____.____
0204	465.0120 Asphaltic Surface Driveways and Field Entrances	40.000 TON	_____.____	_____.____
0206	465.0305 Asphaltic Surface Safety Islands	130.000 TON	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0208	465.0310 Asphaltic Curb	835.000 LF	_____.____	_____.____
0210	465.0315 Asphaltic Flumes	197.000 SY	_____.____	_____.____
0212	465.0400 Asphaltic Shoulder Rumble Strips	9,800.000 LF	_____.____	_____.____
0214	501.1000.S Ice Hot Weather Concreting	86,645.000 LB	_____.____	_____.____
0216	502.0100 Concrete Masonry Bridges **P**	3,697.000 CY	_____.____	_____.____
0218	502.3200 Protective Surface Treatment **P**	18,757.000 SY	_____.____	_____.____
0220	502.3210 Pigmented Surface Sealer	2,931.000 SY	_____.____	_____.____
0222	503.0137 Prestressed Girder Type I 36W-Inch **P**	5,932.000 LF	_____.____	_____.____
0224	503.0146 Prestressed Girder Type I 45W-Inch **P**	9,325.000 LF	_____.____	_____.____
0226	504.0500 Concrete Masonry Retaining Walls **P**	5,105.000 CY	_____.____	_____.____
0228	504.0900 Concrete Masonry Endwalls	12.000 CY	_____.____	_____.____
0230	505.0400 Bar Steel Reinforcement HS Structures **P**	188,500.000 LB	_____.____	_____.____
0232	505.0600 Bar Steel Reinforcement HS Coated Structures **P**	2,252,360.000 LB	_____.____	_____.____
0234	505.0800.S Bar Steel Reinforcement HS Stainless Structures	40,020.000 LB	_____.____	_____.____
0236	506.2605 Bearing Pads Elastomeric Non-Laminated	338.000 EACH	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0238	506.4000 Steel Diaphragms (structure) 001. B-53-0338 **P**	48.000 EACH	_____.____	_____.____
0240	506.4000 Steel Diaphragms (structure) 002. B-53-0339 **P**	48.000 EACH	_____.____	_____.____
0242	506.4000 Steel Diaphragms (structure) 003. B-53-0371 **P**	22.000 EACH	_____.____	_____.____
0244	506.4000 Steel Diaphragms (structure) 004. B-53-0341 **P**	20.000 EACH	_____.____	_____.____
0246	506.4000 Steel Diaphragms (structure) 005. B-53-0342 **P**	48.000 EACH	_____.____	_____.____
0248	506.4000 Steel Diaphragms (structure) 006. B-53-0343 **P**	48.000 EACH	_____.____	_____.____
0250	506.4000 Steel Diaphragms (structure) 007. B-53-0344 **P**	11.000 EACH	_____.____	_____.____
0252	506.4000 Steel Diaphragms (structure) 008. B-53-0345 **P**	11.000 EACH	_____.____	_____.____
0254	506.4000 Steel Diaphragms (structure) 009. B-53-346 **P**	16.000 EACH	_____.____	_____.____
0256	506.4000 Steel Diaphragms (structure) 010. B-53-0347 **P**	16.000 EACH	_____.____	_____.____
0258	511.1200 Temporary Shoring (structure) 001. B-53-0339	730.000 SF	_____.____	_____.____
0260	511.1200 Temporary Shoring (structure) 002. B-53-0341	980.000 SF	_____.____	_____.____
0262	511.1200 Temporary Shoring (structure) 003. B-53-0343	1,330.000 SF	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0264	511.1200 Temporary Shoring (structure) 004. B-53-0345	2,020.000 SF	_____.____	_____.____
0266	511.1200 Temporary Shoring (structure) 005. B-53-347	1,900.000 SF	_____.____	_____.____
0268	511.1200 Temporary Shoring (structure) 006. R-53-0046	430.000 SF	_____.____	_____.____
0270	511.1300 Temporary Shoring (location) 001. S2P1, Kennedy - End	3,040.000 SF	_____.____	_____.____
0272	511.1300 Temporary Shoring (location) 002. S2P3, Begin - USH 14	6,300.000 SF	_____.____	_____.____
0274	511.1300 Temporary Shoring (location) 003. S2P4, USH 14 - Ryan	10,970.000 SF	_____.____	_____.____
0276	511.1300 Temporary Shoring (location) 004. S2P4, Ryan - STH 26	790.000 SF	_____.____	_____.____
0278	511.2200 Temporary Shoring Left in Place (structure) 001. R-53-0059	1,100.000 SF	_____.____	_____.____
0280	511.2300 Temp Shoring Left in Place (location) 001. S2P4, WSOR - Kennedy	11,110.000 SF	_____.____	_____.____
0282	511.2300 Temp Shoring Left in Place (location) 002. S3, WSOR-Kennedy	11,930.000 SF	_____.____	_____.____
0284	513.4091 Railing Tubular Screening 001. R-53-0044	364.000 LF	_____.____	_____.____
0286	513.4091 Railing Tubular Screening 002. R-53-0045	379.000 LF	_____.____	_____.____
0288	513.4091 Railing Tubular Screening 003. R-53-0053	325.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0290	513.4091 Railing Tubular Screening 004. R-53-0054	335.000 LF	_____.____	_____.____
0292	513.8011 Railing Steel Pedestrian Type C2	200.000 LF	_____.____	_____.____
0294	516.0500 Rubberized Membrane Waterproofing	919.000 SY	_____.____	_____.____
0296	517.1010.S Concrete Staining (structure) 001. B-53-0338 **P**	11,660.000 SF	_____.____	_____.____
0298	517.1010.S Concrete Staining (structure) 002. B-53-0339 **P**	11,762.000 SF	_____.____	_____.____
0300	517.1010.S Concrete Staining (structure) 003. B-53-0371 **P**	4,513.000 SF	_____.____	_____.____
0302	517.1010.S Concrete Staining (structure) 004. B-53-0341 **P**	4,380.000 SF	_____.____	_____.____
0304	517.1010.S Concrete Staining (structure) 005. B-53-0342 **P**	9,190.000 SF	_____.____	_____.____
0306	517.1010.S Concrete Staining (structure) 006. B-53-0343 **P**	9,304.000 SF	_____.____	_____.____
0308	517.1010.S Concrete Staining (structure) 007. B-53-0346 **P**	4,340.000 SF	_____.____	_____.____
0310	517.1010.S Concrete Staining (structure) 008. B-53-0347 **P**	4,300.000 SF	_____.____	_____.____
0312	517.1010.S Concrete Staining (structure) 009. R-53-0042 **P**	15,260.000 SF	_____.____	_____.____
0314	517.1010.S Concrete Staining (structure) 010. R-53-0043 **P**	15,690.000 SF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0316	517.1010.S Concrete Staining (structure) 011. R-53-0044 **P**	4,860.000 SF	_____.____	_____.____
0318	517.1010.S Concrete Staining (structure) 012. R-53-0045 **P**	5,390.000 SF	_____.____	_____.____
0320	517.1010.S Concrete Staining (structure) 013. R-53-0047 **P**	17,212.000 SF	_____.____	_____.____
0322	517.1010.S Concrete Staining (structure) 014. R-53-0048 **P**	70,817.000 SF	_____.____	_____.____
0324	517.1010.S Concrete Staining (structure) 015. R-53-0049 **P**	21,149.000 SF	_____.____	_____.____
0326	517.1010.S Concrete Staining (structure) 016. R-53-0053 **P**	4,670.000 SF	_____.____	_____.____
0328	517.1010.S Concrete Staining (structure) 017. R-53-0054 **P**	5,200.000 SF	_____.____	_____.____
0330	517.1010.S Concrete Staining (structure) 018. R-53-0055 **P**	16,450.000 SF	_____.____	_____.____
0332	517.1010.S Concrete Staining (structure) 019. R-53-0058 **P**	4,275.000 SF	_____.____	_____.____
0334	517.1010.S Concrete Staining (structure) 020. R-53-0059 **P**	5,050.000 SF	_____.____	_____.____
0336	517.1010.S Concrete Staining (structure) 021. S-53-0078 **P**	1,360.000 SF	_____.____	_____.____
0338	517.1010.S Concrete Staining (structure) 022. S-53-0079 **P**	1,160.000 SF	_____.____	_____.____
0340	517.1010.S Concrete Staining (structure) 023. S-53-0080 **P**	1,440.000 SF	_____.____	_____.____

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0342	517.1010.S Concrete Staining (structure) 024. S-53-0081 **P**	1,080.000 SF	_____.____	_____.____
0344	517.1010.S Concrete Staining (structure) 025. S-53-0082 **P**	1,050.000 SF	_____.____	_____.____
0346	517.1010.S Concrete Staining (structure) 026. S-53-0083 **P**	1,460.000 SF	_____.____	_____.____
0348	517.1010.S Concrete Staining (structure) 027. S-53-0084 **P**	310.000 SF	_____.____	_____.____
0350	517.1010.S Concrete Staining (structure) 028. S-53-0085 **P**	1,050.000 SF	_____.____	_____.____
0352	517.1010.S Concrete Staining (structure) 029. Northbound Gateway Sign **P**	722.000 SF	_____.____	_____.____
0354	517.1010.S Concrete Staining (structure) 030. Southbound Gateway Sign **P**	714.000 SF	_____.____	_____.____
0356	517.1050.S Architectural Surface Treatment (structure) 001. B-53-0338 **P**	1,510.000 SF	_____.____	_____.____
0358	517.1050.S Architectural Surface Treatment (structure) 002. B-53-0339 **P**	1,567.000 SF	_____.____	_____.____
0360	517.1050.S Architectural Surface Treatment (structure) 003. B-53-0371 **P**	1,145.000 SF	_____.____	_____.____
0362	517.1050.S Architectural Surface Treatment (structure) 004. B-53-0341 **P**	1,265.000 SF	_____.____	_____.____
0364	517.1050.S Architectural Surface Treatment (structure) 005. B-53-0342 **P**	1,151.000 SF	_____.____	_____.____
0366	517.1050.S Architectural Surface Treatment (structure) 006. B-53-0343 **P**	1,267.000 SF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0368	517.1050.S Architectural Surface Treatment (structure) 007. B-53-346 **P**	770.000 SF	_____.____	_____.____
0370	517.1050.S Architectural Surface Treatment (structure) 008. B-53-0347 **P**	710.000 SF	_____.____	_____.____
0372	517.1050.S Architectural Surface Treatment (structure) 009. R-53-0042 **P**	8,130.000 SF	_____.____	_____.____
0374	517.1050.S Architectural Surface Treatment (structure) 010. R-53-0043 **P**	9,650.000 SF	_____.____	_____.____
0376	517.1050.S Architectural Surface Treatment (structure) 011. R-53-0044 **P**	3,510.000 SF	_____.____	_____.____
0378	517.1050.S Architectural Surface Treatment (structure) 012. R-53-0045 **P**	3,990.000 SF	_____.____	_____.____
0380	517.1050.S Architectural Surface Treatment (structure) 013. R-53-0047 **P**	10,274.000 SF	_____.____	_____.____
0382	517.1050.S Architectural Surface Treatment (structure) 014. R-53-0048 **P**	50,003.000 SF	_____.____	_____.____
0384	517.1050.S Architectural Surface Treatment (structure) 015. R-53-0049 **P**	14,287.000 SF	_____.____	_____.____
0386	517.1050.S Architectural Surface Treatment (structure) 016. R-53-0053 **P**	3,470.000 SF	_____.____	_____.____
0388	517.1050.S Architectural Surface Treatment (structure) 017. R-53-0054 **P**	3,960.000 SF	_____.____	_____.____
0390	517.1050.S Architectural Surface Treatment (structure) 018. R-53-0055 **P**	11,623.000 SF	_____.____	_____.____
0392	517.1050.S Architectural Surface Treatment (structure) 019. R-53-0058 **P**	3,240.000 SF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0394	517.1050.S Architectural Surface Treatment (structure) 020. R-53-0059 **P**	3,900.000 SF	_____.____	_____.____
0396	517.1050.S Architectural Surface Treatment (structure) 021. Northbound Gateway Sign **P**	399.000 SF	_____.____	_____.____
0398	517.1050.S Architectural Surface Treatment (structure) 022. Southbound Gateway Sign **P**	374.000 SF	_____.____	_____.____
0400	520.8000 Concrete Collars for Pipe	53.000 EACH	_____.____	_____.____
0402	520.8700 Cleaning Culvert Pipes	60.000 EACH	_____.____	_____.____
0404	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	1.000 EACH	_____.____	_____.____
0406	521.1015 Apron Endwalls for Culvert Pipe Steel 15-Inch	9.000 EACH	_____.____	_____.____
0408	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	12.000 EACH	_____.____	_____.____
0410	521.1024 Apron Endwalls for Culvert Pipe Steel 24-Inch	6.000 EACH	_____.____	_____.____
0412	521.1042 Apron Endwalls for Culvert Pipe Steel 42-Inch	1.000 EACH	_____.____	_____.____
0414	521.2005.S Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 18-Inch	374.000 LF	_____.____	_____.____
0416	521.3112 Culvert Pipe Corrugated Steel 12-Inch	67.000 LF	_____.____	_____.____
0418	521.3115 Culvert Pipe Corrugated Steel 15-Inch	646.000 LF	_____.____	_____.____
0420	521.3118 Culvert Pipe Corrugated Steel 18-Inch	664.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0422	521.3124 Culvert Pipe Corrugated Steel 24-Inch	590.000 LF	_____.____	_____.____
0424	521.3130 Culvert Pipe Corrugated Steel 30-Inch	15.000 LF	_____.____	_____.____
0426	521.3142 Culvert Pipe Corrugated Steel 42-Inch	114.000 LF	_____.____	_____.____
0428	522.0118 Culvert Pipe Reinforced Concrete Class III 18-Inch	381.000 LF	_____.____	_____.____
0430	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	554.000 LF	_____.____	_____.____
0432	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	110.000 LF	_____.____	_____.____
0434	522.0518 Culvert Pipe Reinforced Concrete Class V 18-Inch	223.000 LF	_____.____	_____.____
0436	522.0524 Culvert Pipe Reinforced Concrete Class V 24-Inch	517.000 LF	_____.____	_____.____
0438	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	19.000 EACH	_____.____	_____.____
0440	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	40.000 EACH	_____.____	_____.____
0442	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	55.000 EACH	_____.____	_____.____
0444	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	59.000 EACH	_____.____	_____.____
0446	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	14.000 EACH	_____.____	_____.____
0448	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	6.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0450	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	6.000 EACH	_____.____	_____.____
0452	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	3.000 EACH	_____.____	_____.____
0454	522.1054 Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	1.000 EACH	_____.____	_____.____
0456	522.2414 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	21.000 LF	_____.____	_____.____
0458	522.2419 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	131.000 LF	_____.____	_____.____
0460	522.2429 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	362.000 LF	_____.____	_____.____
0462	522.2614 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	2.000 EACH	_____.____	_____.____
0464	522.2619 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	3.000 EACH	_____.____	_____.____
0466	522.2624 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	4.000 EACH	_____.____	_____.____
0468	522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	1.000 EACH	_____.____	_____.____
0470	522.2634 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	3.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0472	524.0612 Apron Endwalls for Culvert Pipe Salvaged 12-Inch	1.000 EACH	_____.____	_____.____
0474	524.0615 Apron Endwalls for Culvert Pipe Salvaged 15-Inch	1.000 EACH	_____.____	_____.____
0476	524.0618 Apron Endwalls for Culvert Pipe Salvaged 18-Inch	3.000 EACH	_____.____	_____.____
0478	524.0624 Apron Endwalls for Culvert Pipe Salvaged 24-Inch	1.000 EACH	_____.____	_____.____
0480	524.0642 Apron Endwalls for Culvert Pipe Salvaged 42-Inch	1.000 EACH	_____.____	_____.____
0482	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 001. N-53-0017	36,250.000 SF	_____.____	_____.____
0484	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 002. N-53-0018	23,390.000 SF	_____.____	_____.____
0486	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 003. N-53-0019	22,650.000 SF	_____.____	_____.____
0488	531.0200.S Noise Barriers Single-Sided Sound Absorptive (structure) 004. N-53-0021	10,580.000 SF	_____.____	_____.____
0490	550.2108 Piling CIP Concrete 10 3/4 X 0.50-Inch	2,880.000 LF	_____.____	_____.____
0492	550.2126 Piling CIP Concrete 12 3/4 X 0.375-Inch	16,290.000 LF	_____.____	_____.____
0494	601.0110 Concrete Curb Type D	12.000 LF	_____.____	_____.____
0496	601.0405 Concrete Curb & Gutter 18-Inch Type A **P**	2,816.000 LF	_____.____	_____.____
0498	601.0407 Concrete Curb & Gutter 18-Inch Type D **P**	1,308.000 LF	_____.____	_____.____

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0500	601.0417 Concrete Curb & Gutter 30-Inch Type K **P**	2,049.000 LF	_____.____	_____.____
0502	601.0419 Concrete Curb & Gutter 30-Inch Type L **P**	4,341.000 LF	_____.____	_____.____
0504	601.0511 Concrete Curb & Gutter Integral 6-Inch Sloped 36-Inch	385.000 LF	_____.____	_____.____
0506	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A **P**	155.000 LF	_____.____	_____.____
0508	601.0580 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	730.000 LF	_____.____	_____.____
0510	601.0590 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	270.000 LF	_____.____	_____.____
0512	601.0600 Concrete Curb Pedestrian	784.000 LF	_____.____	_____.____
0514	602.0410 Concrete Sidewalk 5-Inch **P**	148,362.000 SF	_____.____	_____.____
0516	602.0515 Curb Ramp Detectable Warning Field Natural Patina	1,180.000 SF	_____.____	_____.____
0518	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	609.000 SF	_____.____	_____.____
0520	603.1142 Concrete Barrier Type S42 **P**	50,320.000 LF	_____.____	_____.____
0522	603.1442 Concrete Barrier Type S42C	3,140.000 LF	_____.____	_____.____
0524	603.1456 Concrete Barrier Type S56C **P**	1,897.000 LF	_____.____	_____.____
0526	603.3559 Concrete Barrier Transition Type S42 to S56	2.000 EACH	_____.____	_____.____

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0528	603.8000 Concrete Barrier Temporary Precast Delivered	93,650.000 LF	_____.____	_____.____
0530	603.8125 Concrete Barrier Temporary Precast Installed	99,150.000 LF	_____.____	_____.____
0532	604.0400 Slope Paving Concrete	707.000 SY	_____.____	_____.____
0534	604.0600 Slope Paving Select Crushed Material	37.000 SY	_____.____	_____.____
0536	606.0200 Riprap Medium	3,900.000 CY	_____.____	_____.____
0538	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	3,394.000 LF	_____.____	_____.____
0540	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	10,666.000 LF	_____.____	_____.____
0542	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	5,604.000 LF	_____.____	_____.____
0544	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	6,600.000 LF	_____.____	_____.____
0546	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	1,502.000 LF	_____.____	_____.____
0548	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	2,148.000 LF	_____.____	_____.____
0550	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	4,347.000 LF	_____.____	_____.____
0552	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	2,520.000 LF	_____.____	_____.____
0554	608.0354 Storm Sewer Pipe Reinforced Concrete Class III 54-Inch	277.000 LF	_____.____	_____.____

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0556	608.0512 Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	1,924.000 LF	_____.____	_____.____
0558	608.0515 Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	2,184.000 LF	_____.____	_____.____
0560	608.0518 Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	1,616.000 LF	_____.____	_____.____
0562	608.0524 Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	1,676.000 LF	_____.____	_____.____
0564	608.0530 Storm Sewer Pipe Reinforced Concrete Class V 30-Inch	1,044.000 LF	_____.____	_____.____
0566	608.0536 Storm Sewer Pipe Reinforced Concrete Class V 36-Inch	881.000 LF	_____.____	_____.____
0568	608.0542 Storm Sewer Pipe Reinforced Concrete Class V 42-Inch	1,310.000 LF	_____.____	_____.____
0570	608.0548 Storm Sewer Pipe Reinforced Concrete Class V 48-Inch	1,569.000 LF	_____.____	_____.____
0572	608.2329 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	636.000 LF	_____.____	_____.____
0574	608.2334 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	250.000 LF	_____.____	_____.____
0576	608.2414 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	185.000 LF	_____.____	_____.____
0578	608.2419 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	105.000 LF	_____.____	_____.____

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0580	608.2424 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	779.000 LF	_____.____	_____.____
0582	608.2429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	166.000 LF	_____.____	_____.____
0584	608.2434 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	651.000 LF	_____.____	_____.____
0586	611.0420 Reconstructing Manholes	14.000 EACH	_____.____	_____.____
0588	611.0530 Manhole Covers Type J	111.000 EACH	_____.____	_____.____
0590	611.0545 Manhole Covers Type L	1.000 EACH	_____.____	_____.____
0592	611.0606 Inlet Covers Type B	1.000 EACH	_____.____	_____.____
0594	611.0610 Inlet Covers Type BW	295.000 EACH	_____.____	_____.____
0596	611.0612 Inlet Covers Type C	2.000 EACH	_____.____	_____.____
0598	611.0624 Inlet Covers Type H	235.000 EACH	_____.____	_____.____
0600	611.0627 Inlet Covers Type HM	6.000 EACH	_____.____	_____.____
0602	611.0639 Inlet Covers Type H-S	45.000 EACH	_____.____	_____.____
0604	611.0642 Inlet Covers Type MS	70.000 EACH	_____.____	_____.____
0606	611.0651 Inlet Covers Type S	12.000 EACH	_____.____	_____.____
0608	611.0652 Inlet Covers Type T	4.000 EACH	_____.____	_____.____

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Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0610	611.0654 Inlet Covers Type V	46.000 EACH	_____.____	_____.____
0612	611.0666 Inlet Covers Type Z	25.000 EACH	_____.____	_____.____
0614	611.1004 Catch Basins 4-FT Diameter	9.000 EACH	_____.____	_____.____
0616	611.1006 Catch Basins 6-FT Diameter	6.000 EACH	_____.____	_____.____
0618	611.1230 Catch Basins 2x3-FT	8.000 EACH	_____.____	_____.____
0620	611.2004 Manholes 4-FT Diameter	35.000 EACH	_____.____	_____.____
0622	611.2006 Manholes 6-FT Diameter	76.000 EACH	_____.____	_____.____
0624	611.2008 Manholes 8-FT Diameter	5.000 EACH	_____.____	_____.____
0626	611.2033 Manholes 3x3-FT	10.000 EACH	_____.____	_____.____
0628	611.2044 Manholes 4x4-FT	23.000 EACH	_____.____	_____.____
0630	611.2055 Manholes 5x5-FT	6.000 EACH	_____.____	_____.____
0632	611.2066 Manholes 6x6-FT	53.000 EACH	_____.____	_____.____
0634	611.3003 Inlets 3-FT Diameter	22.000 EACH	_____.____	_____.____
0636	611.3004 Inlets 4-FT Diameter	108.000 EACH	_____.____	_____.____
0638	611.3220 Inlets 2x2-FT	9.000 EACH	_____.____	_____.____
0640	611.3225 Inlets 2x2.5-FT	188.000 EACH	_____.____	_____.____
0642	611.3230 Inlets 2x3-FT	200.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0644	611.3901 Inlets Median 1 Grate	34.000 EACH	_____.____	_____.____
0646	611.3902 Inlets Median 2 Grate	18.000 EACH	_____.____	_____.____
0648	611.8110 Adjusting Manhole Covers	17.000 EACH	_____.____	_____.____
0650	611.8115 Adjusting Inlet Covers	6.000 EACH	_____.____	_____.____
0652	611.8120.S Cover Plates Temporary	168.000 EACH	_____.____	_____.____
0654	611.9710 Salvaged Inlet Covers	2.000 EACH	_____.____	_____.____
0656	611.9800.S Pipe Grates 001. 36-Inch	5.000 EACH	_____.____	_____.____
0658	611.9800.S Pipe Grates 002. 42-Inch	4.000 EACH	_____.____	_____.____
0660	611.9800.S Pipe Grates 003. 48-Inch	3.000 EACH	_____.____	_____.____
0662	611.9800.S Pipe Grates 004. 54-Inch	1.000 EACH	_____.____	_____.____
0664	611.9800.S Pipe Grates 005. 34x53-Inch	4.000 EACH	_____.____	_____.____
0666	612.0106 Pipe Underdrain 6-Inch	13,200.000 LF	_____.____	_____.____
0668	612.0406 Pipe Underdrain Wrapped 6-Inch	13,981.000 LF	_____.____	_____.____
0670	612.0902.S Insulation Board Polystyrene (inch) 001. 2-Inch	60.000 SY	_____.____	_____.____
0672	614.0150 Anchor Assemblies for Steel Plate Beam Guard	16.000 EACH	_____.____	_____.____
0674	614.0230 Steel Thrie Beam	2,200.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0676	614.0800 Crash Cushions Permanent	4.000 EACH	_____.____	_____.____
0678	614.0905 Crash Cushions Temporary	13.000 EACH	_____.____	_____.____
0680	614.2300 MGS Guardrail 3	6,025.000 LF	_____.____	_____.____
0682	614.2500 MGS Thrie Beam Transition	412.000 LF	_____.____	_____.____
0684	614.2610 MGS Guardrail Terminal EAT	11.000 EACH	_____.____	_____.____
0686	614.2620 MGS Guardrail Terminal Type 2	10.000 EACH	_____.____	_____.____
0688	616.0100 Fence Woven Wire (height) 001. 4-FT **P**	2,795.000 LF	_____.____	_____.____
0690	616.0206 Fence Chain Link 6-FT **P**	25,647.000 LF	_____.____	_____.____
0692	616.0329 Gates Chain Link (width) 001. 2.5-FT	4.000 EACH	_____.____	_____.____
0694	616.0360.S Gates Pipe Single Leaf (length) 001. 12-FT	1.000 EACH	_____.____	_____.____
0696	616.0700.S Fence Safety	2,500.000 LF	_____.____	_____.____
0698	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1005-10-77	1.000 EACH	_____.____	_____.____
0700	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1005-10-87	1.000 EACH	_____.____	_____.____
0702	618.0100 Maintenance And Repair of Haul Roads (project) 003. 5569-00-71	1.000 EACH	_____.____	_____.____
0704	619.1000 Mobilization	1.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0706	620.0200 Concrete Median Blunt Nose **P**	292.000 SF	_____.____	_____.____
0708	620.0300 Concrete Median Sloped Nose **P**	5,071.000 SF	_____.____	_____.____
0710	621.0100 Landmark Reference Monuments	4.000 EACH	_____.____	_____.____
0712	624.0100 Water	9,572.000 MGAL	_____.____	_____.____
0714	625.0100 Topsoil	31,500.000 SY	_____.____	_____.____
0716	625.0500 Salvaged Topsoil	420,450.000 SY	_____.____	_____.____
0718	627.0200 Mulching	351,000.000 SY	_____.____	_____.____
0720	628.1104 Erosion Bales	1,150.000 EACH	_____.____	_____.____
0722	628.1504 Silt Fence	53,345.000 LF	_____.____	_____.____
0724	628.1520 Silt Fence Maintenance	155,890.000 LF	_____.____	_____.____
0726	628.1905 Mobilizations Erosion Control	189.000 EACH	_____.____	_____.____
0728	628.1910 Mobilizations Emergency Erosion Control	97.000 EACH	_____.____	_____.____
0730	628.2004 Erosion Mat Class I Type B	137,000.000 SY	_____.____	_____.____
0732	628.2008 Erosion Mat Urban Class I Type B	168,417.000 SY	_____.____	_____.____
0734	628.2027 Erosion Mat Class II Type C	2,800.000 SY	_____.____	_____.____
0736	628.6510 Soil Stabilizer Type B	2.300 ACRE	_____.____	_____.____
0738	628.7005 Inlet Protection Type A	954.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0740	628.7010 Inlet Protection Type B	439.000 EACH	_____.____	_____.____
0742	628.7015 Inlet Protection Type C	340.000 EACH	_____.____	_____.____
0744	628.7020 Inlet Protection Type D	88.000 EACH	_____.____	_____.____
0746	628.7504 Temporary Ditch Checks	2,130.000 LF	_____.____	_____.____
0748	628.7515.S Stone or Rock Ditch Checks	15.000 CY	_____.____	_____.____
0750	628.7555 Culvert Pipe Checks	352.000 EACH	_____.____	_____.____
0752	628.7560 Tracking Pads	63.000 EACH	_____.____	_____.____
0754	628.7570 Rock Bags	100.000 EACH	_____.____	_____.____
0756	629.0205 Fertilizer Type A	529.000 CWT	_____.____	_____.____
0758	630.0110 Seeding Mixture No. 10	2,231.000 LB	_____.____	_____.____
0760	630.0120 Seeding Mixture No. 20	7,920.000 LB	_____.____	_____.____
0762	630.0130 Seeding Mixture No. 30	7,486.000 LB	_____.____	_____.____
0764	630.0200 Seeding Temporary	1,567.000 LB	_____.____	_____.____
0766	630.0300 Seeding Borrow Pit	4,500.000 LB	_____.____	_____.____
0768	631.0300 Sod Water	720.000 MGAL	_____.____	_____.____
0770	631.1000 Sod Lawn	31,400.000 SY	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0772	632.0101 Trees (species) (size) (root) 001. Maple, Sugar, B&B, 2 1/2-Inch Cal.	55.000 EACH	_____.____	_____.____
0774	632.0101 Trees (species) (size) (root) 002. Oak, Bur, B&B, 2-Inch Cal.	52.000 EACH	_____.____	_____.____
0776	632.0101 Trees (species) (size) (root) 003. Oak, Red, B&B, 2-Inch Cal.	32.000 EACH	_____.____	_____.____
0778	632.0101 Trees (species) (size) (root) 004. Elm, New Horizon, B&B, 2-1/2-Inch Cal.	19.000 EACH	_____.____	_____.____
0780	632.0101 Trees (species) (size) (root) 005. Hackberry, Windy City, B&B, 2 1/2-Inch Cal.	13.000 EACH	_____.____	_____.____
0782	632.0101 Trees (species) (size) (root) 005. Hackberry, Windy City, B&B, 2-1/2-Inch Cal.	5.000 EACH	_____.____	_____.____
0784	632.0101 Trees (species) (size) (root) 006. Ginko, Princeton Sentry, B&B, 2-1/2-Inch Cal.	12.000 EACH	_____.____	_____.____
0786	632.0101 Trees (species) (size) (root) 007. Maple, Freeman Marmo, B&B, 2-1/2-Inch Cal.	27.000 EACH	_____.____	_____.____
0788	632.0101 Trees (species) (size) (root) 008. Oak, Northern Pin, B&B, 2-Inch Cal.	36.000 EACH	_____.____	_____.____
0790	632.0101 Trees (species) (size) (root) 009. Planetree, Exclamation, B&B, 2-1/2-Inch Cal.	67.000 EACH	_____.____	_____.____
0792	632.0101 Trees (species) (size) (root) 010. Coffeetree, Espresso, B&B, 2-1/2-Inch Cal.	45.000 EACH	_____.____	_____.____
0794	632.0101 Trees (species) (size) (root) 011. Crabapple, Adirondack, B&B, 6-Foot Ht.	14.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0796	632.0101 Trees (species) (size) (root) 012. Crabapple, Purple Prince (Shrub form Tree), B&B, 6-Foot Ht.	24.000 EACH	_____.____	_____.____
0798	632.0101 Trees (species) (size) (root) 013. Hawthorn, Winter King (Shrub form Tree), B&B, 6-Foot Ht.	45.000 EACH	_____.____	_____.____
0800	632.0101 Trees (species) (size) (root) 014. Lilac, Japanese Tree Ivory Silk (Shrub form Tree), B&B, 6-Foot Ht.	15.000 EACH	_____.____	_____.____
0802	632.0101 Trees (species) (size) (root) 015. Oak, Swamp White, B&B, 2 1/2-Inch Cal.	26.000 EACH	_____.____	_____.____
0804	632.0101 Trees (species) (size) (root) 016. Elm, Triumph, B&B, 2 1/2-Inch Cal.	30.000 EACH	_____.____	_____.____
0806	632.0101 Trees (species) (size) (root) 017. Arborvitae, Smaragd, B&B, 6-Foot Ht.	14.000 EACH	_____.____	_____.____
0808	632.0101 Trees (species) (size) (root) 018. Hickory, Shagbark, B&B, 2 1/2-Inch Cal.	62.000 EACH	_____.____	_____.____
0810	632.0101 Trees (species) (size) (root) 019. Ash, Snowy Mountain, B&B, 6-Foot Ht.	9.000 EACH	_____.____	_____.____
0812	632.0101 Trees (species) (size) (root) 020. Baldcypress, Shawnee Brave, B&B, 2 1/2-Inch Cal.	5.000 EACH	_____.____	_____.____
0814	632.0101 Trees (species) (size) (root) 021. Pine, Austrian, B&B, 8-Foot Ht.	19.000 EACH	_____.____	_____.____
0816	632.0101 Trees (species) (size) (root) 022. Chokecherry, B&B, 6-Foot Ht.	40.000 EACH	_____.____	_____.____
0818	632.0101 Trees (species) (size) (root) 023. Dogwood, Pagoda, B&B, 6-Foot Ht.	9.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0820	632.0101 Trees (species) (size) (root) 024. Crabapple, Donald Wyman (Shrub form Tree), B&B, 8-Foot Ht.	36.000 EACH	_____.____	_____.____
0822	632.0101 Trees (species) (size) (root) 025. Hawthorn, Thornless Cockspur, B&B, 6-Foot Ht.	17.000 EACH	_____.____	_____.____
0824	632.0101 Trees (species) (size) (root) 026. Crabapple, Prairie, B&B, 6-Foot Ht.	9.000 EACH	_____.____	_____.____
0826	632.0101 Trees (species) (size) (root) 027. HoneyLocust, Skyline, B&B, 2-1/2-Inch Cal.	2.000 EACH	_____.____	_____.____
0828	632.0101 Trees (species) (size) (root) 028. Oak, Regal Prince, B&B, 2-1/2-Inch Cal.	12.000 EACH	_____.____	_____.____
0830	632.0101 Trees (species) (size) (root) 029. Serviceberry, Autumn Brilliance (Shrub form Tree), B&B, 6-Foot Ht.	19.000 EACH	_____.____	_____.____
0832	632.0101 Trees (species) (size) (root) 030. Spruce, Black Hills, B&B, 8-Foot Ht.	8.000 EACH	_____.____	_____.____
0834	632.0101 Trees (species) (size) (root) 032. Crabapple, Redbud, B&B, 6-Foot Ht.	13.000 EACH	_____.____	_____.____
0836	632.0101 Trees (species) (size) (root) 033. Japanese Zelkova, Green Vase, B&B, 2.5-Inch Cal.	10.000 EACH	_____.____	_____.____
0838	632.0101 Trees (species) (size) (root) 033. Japanese Zelkova, Green Vase, B&B, 2-1/2-Inch Cal.	5.000 EACH	_____.____	_____.____
0840	632.0201 Shrubs (species) (size) (root) 001. Juniper, Oldfield Common, Container, 3-Foot Ht. #5	97.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0842	632.0201 Shrubs (species) (size) (root) 002. American Filbert, Container, 3-Foot Ht. #5	124.000 EACH	_____.____	_____.____
0844	632.0201 Shrubs (species) (size) (root) 003. Sumac, Staghorn, Container, 3-Foot Ht. #5	169.000 EACH	_____.____	_____.____
0846	632.0201 Shrubs (species) (size) (root) 004. Chokeberry, Brilliant Red, Container, 3-Foot Ht. #5	212.000 EACH	_____.____	_____.____
0848	632.0201 Shrubs (species) (size) (root) 005. Silky, Dogwood, Container, 3-Foot Ht. #5	80.000 EACH	_____.____	_____.____
0850	632.0201 Shrubs (species) (size) (root) 006. Bayberry, Northern, Container, 3-Foot Ht. #5	361.000 EACH	_____.____	_____.____
0852	632.0201 Shrubs (species) (size) (root) 007. Buckeye, Bottlebrush, Container, 3-Foot Ht. #5	165.000 EACH	_____.____	_____.____
0854	632.0201 Shrubs (species) (size) (root) 008. Dogwood, Redtwig, Container, 3-Foot Ht. #5	119.000 EACH	_____.____	_____.____
0856	632.0201 Shrubs (species) (size) (root) 009. Ninebark, Common, Container, 3-Foot Ht. #5	18.000 EACH	_____.____	_____.____
0858	632.0201 Shrubs (species) (size) (root) 010. Chokeberry, Glossy Black, Container, 3-Foot Ht. #5	38.000 EACH	_____.____	_____.____
0860	632.0201 Shrubs (species) (size) (root) 011. Juniper, Broadmoor, Container, 24-Inch Spread #3	365.000 EACH	_____.____	_____.____
0862	632.0201 Shrubs (species) (size) (root) 012. Juniper, Pfitzer Kallay's Compact, Container, 24-Inch Spread #3	20.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0864	632.0201 Shrubs (species) (size) (root) 013. Rosa, Purple Pavement, Container, 24-Inch Spread #3	86.000 EACH	_____.____	_____.____
0866	632.9101 Landscape Planting Surveillance and Care Cycles	39.000 EACH	_____.____	_____.____
0868	633.0100 Delineator Posts Steel	100.000 EACH	_____.____	_____.____
0870	633.0500 Delineator Reflectors	360.000 EACH	_____.____	_____.____
0872	633.1000 Delineator Brackets	150.000 EACH	_____.____	_____.____
0874	633.5200 Markers Culvert End	188.000 EACH	_____.____	_____.____
0876	634.0612 Posts Wood 4x6-Inch X 12-FT	17.000 EACH	_____.____	_____.____
0878	634.0614 Posts Wood 4x6-Inch X 14-FT	89.000 EACH	_____.____	_____.____
0880	634.0616 Posts Wood 4x6-Inch X 16-FT	179.000 EACH	_____.____	_____.____
0882	634.0618 Posts Wood 4x6-Inch X 18-FT	58.000 EACH	_____.____	_____.____
0884	634.0620 Posts Wood 4x6-Inch X 20-FT	22.000 EACH	_____.____	_____.____
0886	634.0622 Posts Wood 4x6-Inch X 22-FT	1.000 EACH	_____.____	_____.____
0888	635.0200 Sign Supports Structural Steel HS	1,347.000 LB	_____.____	_____.____
0890	636.0100 Sign Supports Concrete Masonry **P**	817.600 CY	_____.____	_____.____
0892	636.0500 Sign Supports Steel Reinforcement	100.000 LB	_____.____	_____.____
0894	636.1000 Sign Supports Steel Reinforcement HS	37,720.000 LB	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0896	636.1500 Sign Supports Steel Coated Reinforcement HS	101,800.000 LB	_____.____	_____.____
0898	637.1220 Signs Type I Reflective SH	3,198.000 SF	_____.____	_____.____
0900	637.1230 Signs Type I Reflective F	414.350 SF	_____.____	_____.____
0902	637.2210 Signs Type II Reflective H	3,789.060 SF	_____.____	_____.____
0904	637.2215 Signs Type II Reflective H Folding	644.240 SF	_____.____	_____.____
0906	637.2230 Signs Type II Reflective F	419.750 SF	_____.____	_____.____
0908	638.2102 Moving Signs Type II	58.000 EACH	_____.____	_____.____
0910	638.2601 Removing Signs Type I	6.000 EACH	_____.____	_____.____
0912	638.2602 Removing Signs Type II	347.000 EACH	_____.____	_____.____
0914	638.3000 Removing Small Sign Supports	372.000 EACH	_____.____	_____.____
0916	638.3100 Removing Structural Steel Sign Supports	2.000 EACH	_____.____	_____.____
0918	638.4000 Moving Small Sign Supports	8.000 EACH	_____.____	_____.____
0920	641.1200 Sign Bridge Cantilevered (structure) 001. S-53-0071	LS	LUMP SUM	_____.____
0922	641.1200 Sign Bridge Cantilevered (structure) 001. S-53-0084	LS	LUMP SUM	_____.____
0924	641.1200 Sign Bridge Cantilevered (structure) 002. S-53-0072	LS	LUMP SUM	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0926	641.1200 Sign Bridge Cantilevered (structure) 002. S-53-0093	LS	LUMP SUM	_____.____
0928	641.1200 Sign Bridge Cantilevered (structure) 003. S-53-0087	LS	LUMP SUM	_____.____
0930	641.1200 Sign Bridge Cantilevered (structure) 003. S-53-0095	LS	LUMP SUM	_____.____
0932	641.1200 Sign Bridge Cantilevered (structure) 004. S-53-0089	LS	LUMP SUM	_____.____
0934	641.6600 Sign Bridge (structure) 001. S-53-0078	LS	LUMP SUM	_____.____
0936	641.6600 Sign Bridge (structure) 002. S-53-0079	LS	LUMP SUM	_____.____
0938	641.6600 Sign Bridge (structure) 003. S-53-0080	LS	LUMP SUM	_____.____
0940	641.6600 Sign Bridge (structure) 004. S-53-0081	LS	LUMP SUM	_____.____
0942	641.6600 Sign Bridge (structure) 005. S-53-0082	LS	LUMP SUM	_____.____
0944	641.6600 Sign Bridge (structure) 006. S-53-0083	LS	LUMP SUM	_____.____
0946	641.6600 Sign Bridge (structure) 007. S-53-0085	LS	LUMP SUM	_____.____
0948	641.8100 Overhead Sign Support (structure) 001. S-53-0086	LS	LUMP SUM	_____.____
0950	641.8100 Overhead Sign Support (structure) 001. S-53-0090	LS	LUMP SUM	_____.____
0952	641.8100 Overhead Sign Support (structure) 001. S-53-0101	LS	LUMP SUM	_____.____
0954	641.8100 Overhead Sign Support (structure) 002. S-53-0088	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0956	641.8100 Overhead Sign Support (structure) 002. S-53-0091	LS	LUMP SUM	_____.____
0958	641.8100 Overhead Sign Support (structure) 003. S-53-0092	LS	LUMP SUM	_____.____
0960	641.8100 Overhead Sign Support (structure) 004. S-53-0094	LS	LUMP SUM	_____.____
0962	642.5401 Field Office Type D	1.000 EACH	_____.____	_____.____
0964	643.0300 Traffic Control Drums	393,500.000 DAY	_____.____	_____.____
0966	643.0410 Traffic Control Barricades Type II	1,700.000 DAY	_____.____	_____.____
0968	643.0420 Traffic Control Barricades Type III	82,700.000 DAY	_____.____	_____.____
0970	643.0500 Traffic Control Flexible Tubular Marker Posts	550.000 EACH	_____.____	_____.____
0972	643.0600 Traffic Control Flexible Tubular Marker Bases	550.000 EACH	_____.____	_____.____
0974	643.0705 Traffic Control Warning Lights Type A	104,300.000 DAY	_____.____	_____.____
0976	643.0715 Traffic Control Warning Lights Type C	70,000.000 DAY	_____.____	_____.____
0978	643.0800 Traffic Control Arrow Boards	6,750.000 DAY	_____.____	_____.____
0980	643.0900 Traffic Control Signs	395,600.000 DAY	_____.____	_____.____
0982	643.0910 Traffic Control Covering Signs Type I	85.000 EACH	_____.____	_____.____
0984	643.0920 Traffic Control Covering Signs Type II	35.000 EACH	_____.____	_____.____

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Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0986	643.1000 Traffic Control Signs Fixed Message	2,101.670 SF	_____.____	_____.____
0988	643.1050 Traffic Control Signs PCMS	7,700.000 DAY	_____.____	_____.____
0990	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0992	644.1410.S Temporary Pedestrian Surface Asphalt	1,400.000 SF	_____.____	_____.____
0994	644.1420.S Temporary Pedestrian Surface Plywood	1,300.000 SF	_____.____	_____.____
0996	644.1430.S Temporary Pedestrian Surface Plate	1,150.000 SF	_____.____	_____.____
0998	644.1601.S Temporary Curb Ramp	45.000 EACH	_____.____	_____.____
1000	644.1616.S Temporary Pedestrian Safety Fence	5,150.000 LF	_____.____	_____.____
1002	645.0111 Geotextile Type DF Schedule A	1,894.000 SY	_____.____	_____.____
1004	645.0112 Geotextile Type DF Schedule B	158.000 SY	_____.____	_____.____
1006	645.0120 Geotextile Type HR	9,150.000 SY	_____.____	_____.____
1008	645.0140 Geotextile Type SAS	150.000 SY	_____.____	_____.____
1010	645.0220 Geogrid Type SR	46,657.000 SY	_____.____	_____.____
1012	646.1005 Marking Line Paint 4-Inch	2,454.000 LF	_____.____	_____.____
1014	646.1020 Marking Line Epoxy 4-Inch	164,511.000 LF	_____.____	_____.____
1016	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	152,400.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1018	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	35,550.000 LF	_____.____	_____.____
1020	646.3020 Marking Line Epoxy 8-Inch	23,015.000 LF	_____.____	_____.____
1022	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	18,750.000 LF	_____.____	_____.____
1024	646.5020 Marking Arrow Epoxy	220.000 EACH	_____.____	_____.____
1026	646.5120 Marking Word Epoxy	79.000 EACH	_____.____	_____.____
1028	646.5220 Marking Symbol Epoxy	8.000 EACH	_____.____	_____.____
1030	646.6120 Marking Stop Line Epoxy 18-Inch	2,171.000 LF	_____.____	_____.____
1032	646.6464 Cold Weather Marking Epoxy 4-Inch	59,510.000 LF	_____.____	_____.____
1034	646.6468 Cold Weather Marking Epoxy 8-Inch	3,445.000 LF	_____.____	_____.____
1036	646.7120 Marking Diagonal Epoxy 12-Inch	107.000 LF	_____.____	_____.____
1038	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	6,797.000 LF	_____.____	_____.____
1040	646.8120 Marking Curb Epoxy	607.000 LF	_____.____	_____.____
1042	646.8220 Marking Island Nose Epoxy	40.000 EACH	_____.____	_____.____
1044	646.9010 Marking Removal Line Water Blasting 4-Inch	247,750.000 LF	_____.____	_____.____
1046	646.9110 Marking Removal Line Water Blasting 8-Inch	21,650.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1048	646.9210 Marking Removal Line Water Blasting Wide	2,260.000 LF	_____.____	_____.____
1050	646.9310 Marking Removal Special Marking Water Blasting	190.000 EACH	_____.____	_____.____
1052	649.0105 Temporary Marking Line Paint 4-Inch	48,700.000 LF	_____.____	_____.____
1054	649.0120 Temporary Marking Line Epoxy 4-Inch	143,000.000 LF	_____.____	_____.____
1056	649.0150 Temporary Marking Line Removable Tape 4-Inch	103,700.000 LF	_____.____	_____.____
1058	649.0205 Temporary Marking Line Paint 8-Inch	4,200.000 LF	_____.____	_____.____
1060	649.0220 Temporary Marking Line Epoxy 8-Inch	6,650.000 LF	_____.____	_____.____
1062	649.0250 Temporary Marking Line Removable Tape 8-Inch	12,250.000 LF	_____.____	_____.____
1064	649.0505 Temporary Marking Arrow Paint	60.000 EACH	_____.____	_____.____
1066	649.0520 Temporary Marking Arrow Epoxy	35.000 EACH	_____.____	_____.____
1068	649.0550 Temporary Marking Arrow Removable Tape	145.000 EACH	_____.____	_____.____
1070	649.0605 Temporary Marking Word Paint	12.000 EACH	_____.____	_____.____
1072	649.0620 Temporary Marking Word Epoxy	14.000 EACH	_____.____	_____.____
1074	649.0650 Temporary Marking Word Removable Tape	45.000 EACH	_____.____	_____.____
1076	649.0760 Temporary Marking Raised Pavement Marker Type I	655.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1078	649.0805 Temporary Marking Stop Line Paint 18-Inch	900.000 LF	_____.____	_____.____
1080	649.0820 Temporary Marking Stop Line Epoxy 18-Inch	520.000 LF	_____.____	_____.____
1082	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	1,330.000 LF	_____.____	_____.____
1084	652.0110 Conduit Rigid Metallic 1-Inch **P**	32.000 LF	_____.____	_____.____
1086	652.0125 Conduit Rigid Metallic 2-Inch **P**	411.000 LF	_____.____	_____.____
1088	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	209.000 LF	_____.____	_____.____
1090	652.0215 Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch **P**	4,622.000 LF	_____.____	_____.____
1092	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch **P**	84,914.000 LF	_____.____	_____.____
1094	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch **P**	31,889.000 LF	_____.____	_____.____
1096	652.0605 Conduit Special 2-Inch **P**	92.000 LF	_____.____	_____.____
1098	652.0615 Conduit Special 3-Inch **P**	1,104.000 LF	_____.____	_____.____
1100	652.0700.S Install Conduit into Existing Item	22.000 EACH	_____.____	_____.____
1102	652.0800 Conduit Loop Detector **P**	15,574.000 LF	_____.____	_____.____
1104	652.0900 Loop Detector Slots	512.000 LF	_____.____	_____.____
1106	653.0154 Pull Boxes Non-Conductive 24x36-Inch	91.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1108	653.0164 Pull Boxes Non-Conductive 24x42-Inch	409.000 EACH	_____.____	_____.____
1110	653.0220 Junction Boxes 18x6x6-Inch	2.000 EACH	_____.____	_____.____
1112	653.0222 Junction Boxes 18x12x6-Inch	115.000 EACH	_____.____	_____.____
1114	653.0905 Removing Pull Boxes	168.000 EACH	_____.____	_____.____
1116	654.0101 Concrete Bases Type 1	89.000 EACH	_____.____	_____.____
1118	654.0102 Concrete Bases Type 2	40.000 EACH	_____.____	_____.____
1120	654.0105 Concrete Bases Type 5	5.000 EACH	_____.____	_____.____
1122	654.0106 Concrete Bases Type 6	133.000 EACH	_____.____	_____.____
1124	654.0110 Concrete Bases Type 10	10.000 EACH	_____.____	_____.____
1126	654.0113 Concrete Bases Type 13	29.000 EACH	_____.____	_____.____
1128	654.0217 Concrete Control Cabinet Bases Type 9 Special	8.000 EACH	_____.____	_____.____
1130	654.1150 Concrete Bases Camera Pole 50-FT	2.000 EACH	_____.____	_____.____
1132	655.0230 Cable Traffic Signal 5-14 AWG	23,337.000 LF	_____.____	_____.____
1134	655.0240 Cable Traffic Signal 7-14 AWG	17,758.000 LF	_____.____	_____.____
1136	655.0250 Cable Traffic Signal 9-14 AWG	1,575.000 LF	_____.____	_____.____
1138	655.0260 Cable Traffic Signal 12-14 AWG	11,290.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1140	655.0270 Cable Traffic Signal 15-14 AWG	618.000 LF	_____.____	_____.____
1142	655.0305 Cable Type UF 2-12 AWG Grounded	8,068.000 LF	_____.____	_____.____
1144	655.0515 Electrical Wire Traffic Signals 10 AWG	22,966.000 LF	_____.____	_____.____
1146	655.0610 Electrical Wire Lighting 12 AWG	62,390.000 LF	_____.____	_____.____
1148	655.0625 Electrical Wire Lighting 6 AWG	133,229.000 LF	_____.____	_____.____
1150	655.0635 Electrical Wire Lighting 2 AWG	153,671.000 LF	_____.____	_____.____
1152	655.0700 Loop Detector Lead In Cable	96,796.000 LF	_____.____	_____.____
1154	655.0800 Loop Detector Wire	80,378.000 LF	_____.____	_____.____
1156	655.0900 Traffic Signal EVP Detector Cable	9,453.000 LF	_____.____	_____.____
1158	656.0200 Electrical Service Meter Breaker Pedestal (location) 001. STH 26 & Morse ST	LS	LUMP SUM	_____.____
1160	656.0200 Electrical Service Meter Breaker Pedestal (location) 002. STH 26 & IH 39 SB Ramps	LS	LUMP SUM	_____.____
1162	656.0200 Electrical Service Meter Breaker Pedestal (location) 003. USH 14	LS	LUMP SUM	_____.____
1164	656.0200 Electrical Service Meter Breaker Pedestal (location) 004. STH 26	LS	LUMP SUM	_____.____
1166	656.0200 Electrical Service Meter Breaker Pedestal (location) 005. STH 26 & IH 39 NB Ramps	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1168	656.0200 Electrical Service Meter Breaker Pedestal (location) 006. STH 26 & Kettering ST	LS	LUMP SUM	_____.____
1170	656.0200 Electrical Service Meter Breaker Pedestal (location) 007. Ryan RD & Deerfield DR	LS	LUMP SUM	_____.____
1172	656.0200 Electrical Service Meter Breaker Pedestal (location) 008. USH 14 & IH 39 SB Ramps	LS	LUMP SUM	_____.____
1174	656.0200 Electrical Service Meter Breaker Pedestal (location) 009. HUB-53-0027	LS	LUMP SUM	_____.____
1176	656.0200 Electrical Service Meter Breaker Pedestal (location) 011. USH 14 & Lexington	LS	LUMP SUM	_____.____
1178	656.0200 Electrical Service Meter Breaker Pedestal (location) 012. USH 14 & Pontiac	LS	LUMP SUM	_____.____
1180	656.0200 Electrical Service Meter Breaker Pedestal (location) 013. USH 14 & IH 39 SB	LS	LUMP SUM	_____.____
1182	656.0200 Electrical Service Meter Breaker Pedestal (location) 014. USH 14 & IH 39 NB	LS	LUMP SUM	_____.____
1184	656.0200 Electrical Service Meter Breaker Pedestal (location) 015. USH 14 & Deerfield	LS	LUMP SUM	_____.____
1186	656.0500 Electrical Service Breaker Disconnect Box (location) 001. CCTV-53-0023/SDS-53-0027	LS	LUMP SUM	_____.____
1188	657.0100 Pedestal Bases	89.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1190	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	187.000 EACH	_____.____	_____.____
1192	657.0305 Poles Type 2	4.000 EACH	_____.____	_____.____
1194	657.0315 Poles Type 4	34.000 EACH	_____.____	_____.____
1196	657.0322 Poles Type 5-Aluminum	5.000 EACH	_____.____	_____.____
1198	657.0326 Poles Type 6-Steel	8.000 EACH	_____.____	_____.____
1200	657.0327 Poles Type 6-Aluminum	169.000 EACH	_____.____	_____.____
1202	657.0345 Poles Type 9	7.000 EACH	_____.____	_____.____
1204	657.0350 Poles Type 10	3.000 EACH	_____.____	_____.____
1206	657.0355 Poles Type 12	27.000 EACH	_____.____	_____.____
1208	657.0360 Poles Type 13	4.000 EACH	_____.____	_____.____
1210	657.0405 Traffic Signal Standards Aluminum 3.5-FT	9.000 EACH	_____.____	_____.____
1212	657.0420 Traffic Signal Standards Aluminum 13-FT	30.000 EACH	_____.____	_____.____
1214	657.0425 Traffic Signal Standards Aluminum 15-FT	26.000 EACH	_____.____	_____.____
1216	657.0430 Traffic Signal Standards Aluminum 10-FT	26.000 EACH	_____.____	_____.____
1218	657.0515 Monotube Arms 15-FT	2.000 EACH	_____.____	_____.____
1220	657.0520 Monotube Arms 20-FT	2.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1222	657.0525 Monotube Arms 25-FT	2.000 EACH	_____.____	_____.____
1224	657.0530 Monotube Arms 30-FT	4.000 EACH	_____.____	_____.____
1226	657.0540 Monotube Arms 40-FT	5.000 EACH	_____.____	_____.____
1228	657.0545 Monotube Arms 45-FT	13.000 EACH	_____.____	_____.____
1230	657.0550 Monotube Arms 50-FT	9.000 EACH	_____.____	_____.____
1232	657.0555 Monotube Arms 55-FT	4.000 EACH	_____.____	_____.____
1234	657.0614 Luminaire Arms Single Member 4-Inch Clamp 8-FT	53.000 EACH	_____.____	_____.____
1236	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	194.000 EACH	_____.____	_____.____
1238	657.0714 Luminaire Arms Truss Type 4-Inch Clamp 15-FT	2.000 EACH	_____.____	_____.____
1240	657.0808 Luminaire Arms Steel 8-FT	10.000 EACH	_____.____	_____.____
1242	657.6005 Anchor Assemblies Light Poles on Structures	32.000 EACH	_____.____	_____.____
1244	658.0173 Traffic Signal Face 3S 12-Inch	177.000 EACH	_____.____	_____.____
1246	658.0174 Traffic Signal Face 4S 12-Inch	36.000 EACH	_____.____	_____.____
1248	658.0175 Traffic Signal Face 5S 12-Inch	8.000 EACH	_____.____	_____.____
1250	658.0416 Pedestrian Signal Face 16-Inch	110.000 EACH	_____.____	_____.____
1252	658.0500 Pedestrian Push Buttons	96.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1254	658.5069 Signal Mounting Hardware (location) 001. STH 26 & Morse Street	LS	LUMP SUM	_____.____
1256	658.5069 Signal Mounting Hardware (location) 002. STH 26 & IH 39 SB Ramps	LS	LUMP SUM	_____.____
1258	658.5069 Signal Mounting Hardware (location) 003. STH 26 & IH 39 NB Ramps	LS	LUMP SUM	_____.____
1260	658.5069 Signal Mounting Hardware (location) 004. STH 26 & Kettering ST	LS	LUMP SUM	_____.____
1262	658.5069 Signal Mounting Hardware (location) 005. Ryan RD & Deerfield DR	LS	LUMP SUM	_____.____
1264	658.5069 Signal Mounting Hardware (location) 006. USH 14 & Lexington	LS	LUMP SUM	_____.____
1266	658.5069 Signal Mounting Hardware (location) 007. USH 14 & Pontiac	LS	LUMP SUM	_____.____
1268	658.5069 Signal Mounting Hardware (location) 008. USH 14 & IH 39 SB	LS	LUMP SUM	_____.____
1270	658.5069 Signal Mounting Hardware (location) 009. USH 14 & IH 39 SB	LS	LUMP SUM	_____.____
1272	658.5069 Signal Mounting Hardware (location) 010. USH 14 & Deerfield	LS	LUMP SUM	_____.____
1274	659.0600 Underdeck Lighting (location) 001. B-53-0338	LS	LUMP SUM	_____.____
1276	659.0600 Underdeck Lighting (location) 002. B-53-0339	LS	LUMP SUM	_____.____
1278	659.0600 Underdeck Lighting (location) 003. R-53-0044	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1280	659.0600 Underdeck Lighting (location) 004. R-53-0045	LS	LUMP SUM	_____.____
1282	659.0600 Underdeck Lighting (location) 005. R-53-0048	LS	LUMP SUM	_____.____
1284	659.0600 Underdeck Lighting (location) 006. R-53-0049	LS	LUMP SUM	_____.____
1286	659.0600 Underdeck Lighting (location) 007. B-53-0342	LS	LUMP SUM	_____.____
1288	659.0600 Underdeck Lighting (location) 008. B-53-0343	LS	LUMP SUM	_____.____
1290	659.1120 Luminaires Utility LED B	257.000 EACH	_____.____	_____.____
1292	659.1205 Luminaires Underdeck LED A	8.000 EACH	_____.____	_____.____
1294	659.1210 Luminaires Underdeck LED B	16.000 EACH	_____.____	_____.____
1296	659.2130 Lighting Control Cabinets 120/240 30-Inch	4.000 EACH	_____.____	_____.____
1298	661.0200 Temporary Traffic Signals for Intersections (location) 001. STH 26 & Morse Street	LS	LUMP SUM	_____.____
1300	661.0200 Temporary Traffic Signals for Intersections (location) 002. STH 26 & Kettering Street	LS	LUMP SUM	_____.____
1302	661.0200 Temporary Traffic Signals for Intersections (location) 003. USH 14 & Pontiac	LS	LUMP SUM	_____.____
1304	661.0200 Temporary Traffic Signals for Intersections (location) 004. USH 14 & Deerfield	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1306	662.1026.S Ramp Closure Gates Hardwired 26-FT	3.000 EACH	_____.____	_____.____
1308	662.1028.S Ramp Closure Gates Hardwired 28-FT	1.000 EACH	_____.____	_____.____
1310	662.1030.S Ramp Closure Gates Hardwired 30-FT	2.000 EACH	_____.____	_____.____
1312	662.1032.S Ramp Closure Gates Hardwired 32-FT	1.000 EACH	_____.____	_____.____
1314	662.1040.S Ramp Closure Gates Hardwired 40-FT	1.000 EACH	_____.____	_____.____
1316	670.0100 Field System Integrator 001. 1005-10-77	 LS	 LUMP SUM	 _____.____
1318	670.0100 Field System Integrator 002. 1005-10-87	 LS	 LUMP SUM	 _____.____
1320	670.0200 ITS Documentation 001. 1005-10-77	 LS	 LUMP SUM	 _____.____
1322	670.0200 ITS Documentation 002. 1005-10-87	 LS	 LUMP SUM	 _____.____
1324	671.0132 Conduit HDPE 3-Duct 2-Inch **P**	14,030.000 LF	_____.____	_____.____
1326	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch **P**	405.000 LF	_____.____	_____.____
1328	673.0110 Communication Vault Type Round	28.000 EACH	_____.____	_____.____
1330	673.0200 Tracer Wire Marker Posts	16.000 EACH	_____.____	_____.____
1332	673.0225.S Install Pole Mounted Cabinet	3.000 EACH	_____.____	_____.____
1334	674.0200 Cable Microwave Detector	15,958.000 LF	_____.____	_____.____
1336	674.0300 Remove Cable	6,610.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1338	674.0400 Reinstall Cable	1,110.000 LF	_____.____	_____.____
1340	675.0300 Install Mounted Controller Microwave Detector Assembly	13.000 EACH	_____.____	_____.____
1342	677.0150 Install Camera Pole 50-FT	2.000 EACH	_____.____	_____.____
1344	677.0200 Install Camera Assembly	3.000 EACH	_____.____	_____.____
1346	677.9051.S Removing 50-FT Camera Pole	1.000 EACH	_____.____	_____.____
1348	678.0012 Install Fiber Optic Cable Outdoor Plant 12-CT	9,817.000 LF	_____.____	_____.____
1350	678.0024 Install Fiber Optic Cable Outdoor Plant 24-CT	3,530.000 LF	_____.____	_____.____
1352	678.0036 Install Fiber Optic Cable Outdoor Plant 36-CT	13,926.000 LF	_____.____	_____.____
1354	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	67,396.000 LF	_____.____	_____.____
1356	678.0200 Fiber Optic Splice Enclosure	21.000 EACH	_____.____	_____.____
1358	678.0300 Fiber Optic Splice	468.000 EACH	_____.____	_____.____
1360	678.0400 Fiber Optic Termination	324.000 EACH	_____.____	_____.____
1362	678.0500 Communication System Testing 001. 1005-10-77	LS	LUMP SUM	_____.____
1364	678.0500 Communication System Testing 002. 1005-10-87	LS	LUMP SUM	_____.____
1366	678.0600 Install Ethernet Switches	15.000 EACH	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1368	690.0150 Sawing Asphalt	25,337.000 LF	_____._____	_____._____
1370	690.0250 Sawing Concrete	19,287.000 LF	_____._____	_____._____
1372	715.0415 Incentive Strength Concrete Pavement	240,020.000 DOL	1.00000	240,020.00
1374	715.0502 Incentive Strength Concrete Structures	99,822.000 DOL	1.00000	99,822.00
1376	740.0440 Incentive IRI Ride	75,883.000 DOL	1.00000	75,883.00
1378	801.0117 Railroad Flagging Reimbursment	90,000.000 DOL	1.00000	90,000.00
1380	999.1000.S Seismograph	 LS	LUMP SUM	_____._____
1382	999.1500.S Crack and Damage Survey	 LS	LUMP SUM	_____._____
1384	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	3,000.000 HRS	5.00000	15,000.00
1386	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	3,000.000 HRS	5.00000	15,000.00
1388	SPV.0005 Special 500. Subsoiling	14.000 ACRE	_____._____	_____._____
1390	SPV.0005 Special 501. Pre-Planting Vegetation Treatment	68.000 ACRE	_____._____	_____._____
1392	SPV.0005 Special 502. Seed Bed Preparation	34.000 ACRE	_____._____	_____._____
1394	SPV.0035 Special 001. Roadway Embankment	974,435.000 CY	_____._____	_____._____
1396	SPV.0035 Special 500. Planting Mixture	1,410.000 CY	_____._____	_____._____
1398	SPV.0035 Special 501. Topsoil Special	4,990.500 CY	_____._____	_____._____

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Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1400	SPV.0035 Special 700. High Performance Concrete (HPC) Masonry Structures **P**	7,835.000 CY	_____.____	_____.____
1402	SPV.0060 Special 001. Baseline CPM Progress Schedule	2.000 EACH	_____.____	_____.____
1404	SPV.0060 Special 002. CPM Progress Schedule Updates and Accepted Revisions	40.000 EACH	_____.____	_____.____
1406	SPV.0060 Special 003. Cover Plates Permanent	2.000 EACH	_____.____	_____.____
1408	SPV.0060 Special 004. Access Gate 3-Foot Polymer-Coated	3.000 EACH	_____.____	_____.____
1410	SPV.0060 Special 005. Access Gate 6-Foot	1.000 EACH	_____.____	_____.____
1412	SPV.0060 Special 006. Access Gate 20-Foot Polymer-Coated	1.000 EACH	_____.____	_____.____
1414	SPV.0060 Special 007. Access Gate 20-Foot	3.000 EACH	_____.____	_____.____
1416	SPV.0060 Special 008. Concrete Barrier Transition Type S56 to Sign Bridge	14.000 EACH	_____.____	_____.____
1418	SPV.0060 Special 009. Test Pits	12.000 EACH	_____.____	_____.____
1420	SPV.0060 Special 010. Uncovering Signs	1.000 EACH	_____.____	_____.____
1422	SPV.0060 Special 011. Remove and Salvage Bus Shelter	1.000 EACH	_____.____	_____.____
1424	SPV.0060 Special 012. Removing Billboard Sign and Sign Structure	2.000 EACH	_____.____	_____.____
1426	SPV.0060 Special 100. Catch Basins 2x2-FT	3.000 EACH	_____.____	_____.____
1428	SPV.0060 Special 101. Catch Basins 2x2.5-FT	17.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1430	SPV.0060 Special 102. Catch Basins 6x6-FT	3.000 EACH	_____.____	_____.____
1432	SPV.0060 Special 103. Catch Basins 8-FT Diameter	2.000 EACH	_____.____	_____.____
1434	SPV.0060 Special 104. Securing Structure Covers	16.000 EACH	_____.____	_____.____
1436	SPV.0060 Special 105. Sediment Level Monitoring Post	38.000 EACH	_____.____	_____.____
1438	SPV.0060 Special 106. Monitoring Well	12.000 EACH	_____.____	_____.____
1440	SPV.0060 Special 107. Covering Storm Sewer	99.000 EACH	_____.____	_____.____
1442	SPV.0060 Special 108. Inlet Cover Driveway Special	2.000 EACH	_____.____	_____.____
1444	SPV.0060 Special 201. Fixed Message Sign Portable Support	41.000 EACH	_____.____	_____.____
1446	SPV.0060 Special 203. Crash Cushion Temporary Low Maintenance	17.000 EACH	_____.____	_____.____
1448	SPV.0060 Special 205. Install Department Furnished Crash Cushion Low Maintenance	1.000 EACH	_____.____	_____.____
1450	SPV.0060 Special 206. Emergency Response to Traffic Incident Involving Conc Barrier Temp Precast	7.000 EACH	_____.____	_____.____
1452	SPV.0060 Special 207. Emergency Response to Traffic Incident Involving Crash Cushion	3.000 EACH	_____.____	_____.____
1454	SPV.0060 Special 208. Emergency Response to Traffic Incident Involving Guardrail or EAT	3.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1456	SPV.0060 Special 209. Repair State Owned Crash Cushion	1.000 EACH	_____.____	_____.____
1458	SPV.0060 Special 210. Repair State Owned Crash Cushion Low Maintenance	1.000 EACH	_____.____	_____.____
1460	SPV.0060 Special 211. Repair State Owned Energy Absorbing Terminal (EAT)	1.000 EACH	_____.____	_____.____
1462	SPV.0060 Special 212. Roadway Cleanup	30.000 EACH	_____.____	_____.____
1464	SPV.0060 Special 350. Remove Existing Lighting Control	4.000 EACH	_____.____	_____.____
1466	SPV.0060 Special 351. Salvage Street Light	11.000 EACH	_____.____	_____.____
1468	SPV.0060 Special 352. Removing Anchor Bolt Cover Shrouds	7.000 EACH	_____.____	_____.____
1470	SPV.0060 Special 353. Double Lighting Cabinet Base	2.000 EACH	_____.____	_____.____
1472	SPV.0060 Special 401. Remove Poles Wood	2.000 EACH	_____.____	_____.____
1474	SPV.0060 Special 402. Remove Poles Type 5	1.000 EACH	_____.____	_____.____
1476	SPV.0060 Special 403. Remove ITS Cabinet	2.000 EACH	_____.____	_____.____
1478	SPV.0060 Special 404. Remove Communication Vault	3.000 EACH	_____.____	_____.____
1480	SPV.0060 Special 405. Remove Electrical Service Meter Breaker Pedestal	1.000 EACH	_____.____	_____.____
1482	SPV.0060 Special 406. Install Wireless Mesh Radio Assembly	3.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1484	SPV.0060 Special 407. Poles Wood 65-FT	1.000 EACH	_____.____	_____.____
1486	SPV.0060 Special 408. ITS Communication Hub Building Concrete Base	1.000 EACH	_____.____	_____.____
1488	SPV.0060 Special 409. Install ITS Communication Hub Building	1.000 EACH	_____.____	_____.____
1490	SPV.0060 Special 410. 19-Inch Equipment Rack	3.000 EACH	_____.____	_____.____
1492	SPV.0060 Special 411. 19-Inch Server Rack	3.000 EACH	_____.____	_____.____
1494	SPV.0060 Special 412. Cable Organizer Rack	4.000 EACH	_____.____	_____.____
1496	SPV.0060 Special 413. Server Rack Uninterruptable Power Supply	3.000 EACH	_____.____	_____.____
1498	SPV.0060 Special 414. Equipment Rack Uninterruptable Power Supply	3.000 EACH	_____.____	_____.____
1500	SPV.0060 Special 415. Electrical Power Transfer Switch	1.000 EACH	_____.____	_____.____
1502	SPV.0060 Special 416. ITS Communication Hub Building Generator	1.000 EACH	_____.____	_____.____
1504	SPV.0060 Special 417. Salvage Radio	10.000 EACH	_____.____	_____.____
1506	SPV.0060 Special 450. Pull Box Non-Conductive 18x24-Inch	16.000 EACH	_____.____	_____.____
1508	SPV.0060 Special 451. Remove and Reinstall Solar-Powered Bluetooth Assembly	7.000 EACH	_____.____	_____.____
1510	SPV.0060 Special 452. Remove Existing Electrical Service	10.000 EACH	_____.____	_____.____

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Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1512	SPV.0060 Special 453. Install Cellular Modem	11.000 EACH	_____.____	_____.____
1514	SPV.0060 Special 454. Concrete Control Cabinet Bases Type 9 Special (Mod.)	2.000 EACH	_____.____	_____.____
1516	SPV.0060 Special 455. Concrete Base Type 1 Spread Footing	6.000 EACH	_____.____	_____.____
1518	SPV.0060 Special 500. Perennials, Feather Reed Grass (Karl Foerster), Container #1	239.000 EACH	_____.____	_____.____
1520	SPV.0060 Special 501. Perennials, Little Bluestem (Blue Heaven), Container #1	89.000 EACH	_____.____	_____.____
1522	SPV.0060 Special 502. Perennials, Prairie Dropseed (Tara), Container #1	1,616.000 EACH	_____.____	_____.____
1524	SPV.0060 Special 506. Native Seed Surveillance and Care Cycles	24.000 EACH	_____.____	_____.____
1526	SPV.0060 Special 507. Delineator Post Steel Modified	88.000 EACH	_____.____	_____.____
1528	SPV.0060 Special 650. Remove and Salvage Hydrant	8.000 EACH	_____.____	_____.____
1530	SPV.0060 Special 651. Hydrant	10.000 EACH	_____.____	_____.____
1532	SPV.0060 Special 652. 6-Inch Gate Valve With Box	9.000 EACH	_____.____	_____.____
1534	SPV.0060 Special 653. 4-Foot Diameter Water Valve Vault	1.000 EACH	_____.____	_____.____
1536	SPV.0060 Special 654. 12-Inch Gate Valve	1.000 EACH	_____.____	_____.____
1538	SPV.0060 Special 655. Water Valve Vault Casting	1.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1540	SPV.0060 Special 656. Temporary Water Main Blowoff	1.000 EACH	_____.____	_____.____
1542	SPV.0060 Special 657. Water Main Cut-In Connection	5.000 EACH	_____.____	_____.____
1544	SPV.0060 Special 658. Water Main Offset 16-Inch	2.000 EACH	_____.____	_____.____
1546	SPV.0060 Special 659. Water Main Offset 12-Inch	2.000 EACH	_____.____	_____.____
1548	SPV.0060 Special 660. Sanitary Manhole Chimney Seal	19.000 EACH	_____.____	_____.____
1550	SPV.0060 Special 661. Utility Line Opening	27.000 EACH	_____.____	_____.____
1552	SPV.0060 Special 662. Adjusting Hydrant And Auxiliary Valve Box	2.000 EACH	_____.____	_____.____
1554	SPV.0060 Special 663. Adjusting Water Valve Box	1.000 EACH	_____.____	_____.____
1556	SPV.0060 Special 700. Junction Boxes 4 X 4 X 4-Inch	12.000 EACH	_____.____	_____.____
1558	SPV.0060 Special 850. Decorative Medallion	12.000 EACH	_____.____	_____.____
1560	SPV.0060 Special 851. Medallion Concrete Staining	12.000 EACH	_____.____	_____.____
1562	SPV.0060 Special 852. Standpipe System	5.000 EACH	_____.____	_____.____
1564	SPV.0060 Special 900. Maintenance Doors	5.000 EACH	_____.____	_____.____
1566	SPV.0060 Special 901. Anchor Assemblies Noise Barrier Structures	79.000 EACH	_____.____	_____.____
1568	SPV.0075 Special 001. Street Sweeping	300.000 HRS	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1570	SPV.0075 Special 002. Construction Site Maintenance - Mowing	1,200.000 HRS	_____.____	_____.____
1572	SPV.0085 Special 509. Seeding Native Mix N1	30.000 LB	_____.____	_____.____
1574	SPV.0085 Special 510. Seeding Native Mix N2	746.000 LB	_____.____	_____.____
1576	SPV.0085 Special 511. Seeding Native Mix N3	30.000 LB	_____.____	_____.____
1578	SPV.0085 Special 512. Seeding Native Mix N4	30.000 LB	_____.____	_____.____
1580	SPV.0090 Special 001. Concrete Curb & Gutter 30-Inch Type K Special	36,032.000 LF	_____.____	_____.____
1582	SPV.0090 Special 002. Concrete Curb & Gutter 30-Inch Type L Special	2,693.000 LF	_____.____	_____.____
1584	SPV.0090 Special 003. Concrete Pavement Joint Sealing	54,000.000 LF	_____.____	_____.____
1586	SPV.0090 Special 004. Fence Chain Link Polymer-Coated 6-Foot Ground Mounted	591.000 LF	_____.____	_____.____
1588	SPV.0090 Special 005. Concrete Barrier Type S42 Turned Down End	36.000 LF	_____.____	_____.____
1590	SPV.0090 Special 006. Marking Stop Line Epoxy 24-Inch	325.000 LF	_____.____	_____.____
1592	SPV.0090 Special 007. Concrete Curb and Gutter Integral 30-Inch Type K Special	330.000 LF	_____.____	_____.____
1594	SPV.0090 Special 201. Maint and Removal of Concrete Barrier Temp Precast Left in Place	20,200.000 LF	_____.____	_____.____
1596	SPV.0090 Special 202. Traffic Control Gawk Screen Furnished	16,000.000 LF	_____.____	_____.____

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Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1598	SPV.0090 Special 203. Traffic Control Gawk Screen Installed	21,000.000 LF	_____.____	_____.____
1600	SPV.0090 Special 204. Traffic Control Glare Screen Furnished	11,000.000 LF	_____.____	_____.____
1602	SPV.0090 Special 205. Traffic Control Glare Screen Installed	18,600.000 LF	_____.____	_____.____
1604	SPV.0090 Special 206. Concrete Barrier Temporary Precast Left In Place	550.000 LF	_____.____	_____.____
1606	SPV.0090 Special 207. Repair State Owned Concrete Barrier Temporary Precast	1,250.000 LF	_____.____	_____.____
1608	SPV.0090 Special 208. Repair State Owned Guardrail	1,000.000 LF	_____.____	_____.____
1610	SPV.0090 Special 350. Removing Electrical Conductors from Existing Conduit	1,730.000 LF	_____.____	_____.____
1612	SPV.0090 Special 351. Furnish and Install Equivalent Lighting Conductors	1,000.000 LF	_____.____	_____.____
1614	SPV.0090 Special 450. Install CAT-5e Cable	3,763.000 LF	_____.____	_____.____
1616	SPV.0090 Special 451. Fiber Optic Tracer Cable	14,875.000 LF	_____.____	_____.____
1618	SPV.0090 Special 452. Fiber Optic Warning Tape	12,833.000 LF	_____.____	_____.____
1620	SPV.0090 Special 650. 12-Inch Ductile Iron Water Main	569.000 LF	_____.____	_____.____
1622	SPV.0090 Special 651. 6-Inch Ductile Iron Water Main	223.000 LF	_____.____	_____.____
1624	SPV.0090 Special 700. Removing Existing HP 10-Inch X 42 LB Piling	500.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1626	SPV.0090 Special 850. Fence Chain Link Polymer-Coated 6-FT	642.000 LF	_____._____	_____._____
1628	SPV.0090 Special 851. Fence Chain Link Polymer-Coated 3-FT	511.000 LF	_____._____	_____._____
1630	SPV.0105 Special 001. Survey Project 1005-10-83	LS	LUMP SUM	_____._____
1632	SPV.0105 Special 002. Survey Project 1005-10-77 with Optional AMG for Conc Pavt and Base Course	LS	LUMP SUM	_____._____
1634	SPV.0105 Special 003. Survey Project 1005-10-87 with Optional AMG for Conc Pavt and Base Course	LS	LUMP SUM	_____._____
1636	SPV.0105 Special 004. Survey Project 5569-00-71 with Optional AMG for Conc Pavt and Base Course	LS	LUMP SUM	_____._____
1638	SPV.0105 Special 005. Concrete Pavement Joint Layout, Project 1005-10-77	LS	LUMP SUM	_____._____
1640	SPV.0105 Special 006. Concrete Pavement Joint Layout, Project 1005-10-87	LS	LUMP SUM	_____._____
1642	SPV.0105 Special 007. Concrete Pavement Joint Layout, Project 5569-00-71	LS	LUMP SUM	_____._____
1644	SPV.0105 Special 008. Install Fiber Optic Communications in Cabinet (STH 26 & Morse Street)	LS	LUMP SUM	_____._____
1646	SPV.0105 Special 009. Install Fiber Optic Communications in Cabinet (STH 26 & IH 39 SB Ramps)	LS	LUMP SUM	_____._____
1648	SPV.0105 Special 010. Install Fiber Optic Communications in Cabinet (STH 26 & IH 39 NB Ramps)	LS	LUMP SUM	_____._____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1650	SPV.0105 Special 011. Install Fiber Optic Communications in Cabinet (STH 26 & Kettering Street)	LS	LUMP SUM	_____.____
1652	SPV.0105 Special 012. Install Fiber Optic Communications in Cabinet (USH 14 & Lexington)	LS	LUMP SUM	_____.____
1654	SPV.0105 Special 013. Install Fiber Optic Communications in Cabinet (USH 14 & Pontiac)	LS	LUMP SUM	_____.____
1656	SPV.0105 Special 014. Install Fiber Optic Communications in Cabinet (USH 14 & IH 39 SB)	LS	LUMP SUM	_____.____
1658	SPV.0105 Special 015. Install Fiber Optic Communications in Cabinet (USH 14 & IH 39 NB)	LS	LUMP SUM	_____.____
1660	SPV.0105 Special 016. Install Fiber Optic Communications in Cabinet (USH 14 & Deerfield)	LS	LUMP SUM	_____.____
1662	SPV.0105 Special 017. Traffic-Diversion Detection System	LS	LUMP SUM	_____.____
1664	SPV.0105 Special 018. Electrical Systems Integrator - 1005-10-77	LS	LUMP SUM	_____.____
1666	SPV.0105 Special 019. Electrical Systems Integrator - 1005-10-87	LS	LUMP SUM	_____.____
1668	SPV.0105 Special 020. Electrical Systems Integrator - 5569-00-71	LS	LUMP SUM	_____.____
1670	SPV.0105 Special 021. Temp Traffic Signals for Intersec. - Modification (Pontiac Dr & Pontiac Pl)	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1672	SPV.0105 Special 022. Removing Sign Bridge S-53-0002	LS	LUMP SUM	_____.____
1674	SPV.0105 Special 023. Removing Sign Bridge S-53-0023	LS	LUMP SUM	_____.____
1676	SPV.0105 Special 024. Removing Sign Bridge S-53-0024	LS	LUMP SUM	_____.____
1678	SPV.0105 Special 025. Removing Sign Bridge S-53-0029	LS	LUMP SUM	_____.____
1680	SPV.0105 Special 026. Removing Sign Bridge S-53-0052	LS	LUMP SUM	_____.____
1682	SPV.0105 Special 350. Electrical Service Meter Breaker Pedestal Special (CB600)	LS	LUMP SUM	_____.____
1684	SPV.0105 Special 351. Electrical Service Meter Breaker Pedestal Special (CB700)	LS	LUMP SUM	_____.____
1686	SPV.0105 Special 352. Electrical Service Meter Breaker Pedestal Special (CB800)	LS	LUMP SUM	_____.____
1688	SPV.0105 Special 353. Electrical Service Meter Breaker Pedestal Special (CB900)	LS	LUMP SUM	_____.____
1690	SPV.0105 Special 354. Electrical Service Meter Breaker Pedestal Special (CB1000)	LS	LUMP SUM	_____.____
1692	SPV.0105 Special 355. Temporary Overhead Electrical Feed	LS	LUMP SUM	_____.____
1694	SPV.0105 Special 356. Gateway Sign Lighting NB Janesville	LS	LUMP SUM	_____.____
1696	SPV.0105 Special 357. Gateway Sign Lighting SB Janesville	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1698	SPV.0105 Special 358. Electrical Service Meter Breaker Pedestal Special (CB1200)	LS	LUMP SUM	_____.____
1700	SPV.0105 Special 359. Electrical Service Meter Breaker Pedestal Special (CB1300)	LS	LUMP SUM	_____.____
1702	SPV.0105 Special 401. Salvage ITS Equipment EXCP-1 (USH 14 Interchange)	LS	LUMP SUM	_____.____
1704	SPV.0105 Special 402. Salvage ITS Equipment EXCP-2 (USH 14 Interchange)	LS	LUMP SUM	_____.____
1706	SPV.0105 Special 403. Salvage ITS Equipment (STH 26 Interchange)	LS	LUMP SUM	_____.____
1708	SPV.0105 Special 404. Relocate Solar-Powered Bluetooth Sensor	LS	LUMP SUM	_____.____
1710	SPV.0105 Special 450. Remove Traffic Signal (STH 26 & Morse Street)	LS	LUMP SUM	_____.____
1712	SPV.0105 Special 451. Remove Traffic Signal (STH 26 & Kettering Street)	LS	LUMP SUM	_____.____
1714	SPV.0105 Special 452. Remove Traffic Signal (USH 14 & IH 39 SB Ramps)	LS	LUMP SUM	_____.____
1716	SPV.0105 Special 453. Remove Traffic Signals (USH 14 & IH 39 NB Ramps)	LS	LUMP SUM	_____.____
1718	SPV.0105 Special 454. Remove Traffic Signal (USH 14 & Lexington)	LS	LUMP SUM	_____.____
1720	SPV.0105 Special 455. Remove Traffic Signal (USH 14 & Pontiac)	LS	LUMP SUM	_____.____
1722	SPV.0105 Special 456. Remove Traffic Signal (USH 14 & IH 39 SB)	LS	LUMP SUM	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1724	SPV.0105 Special 457. Remove Traffic Signal (USH 14 & IH 39 NB)	LS	LUMP SUM	_____.____
1726	SPV.0105 Special 458. Remove Traffic Signal (USH 14 & Deerfield)	LS	LUMP SUM	_____.____
1728	SPV.0105 Special 459. Salvage and Install Traffic Signal Cabinet (STH 26 & Morse Street)	LS	LUMP SUM	_____.____
1730	SPV.0105 Special 460. Salvage and Install Traffic Signal Cabinet (STH 26 & IH 39 SB Ramps)	LS	LUMP SUM	_____.____
1732	SPV.0105 Special 461. Salvage and Install Traffic Signal Cabinet (STH 26 & IH 39 NB Ramps)	LS	LUMP SUM	_____.____
1734	SPV.0105 Special 462. Salvage and Install Traffic Signal Cabinet (STH 26 & Kettering Street)	LS	LUMP SUM	_____.____
1736	SPV.0105 Special 463. Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 SB Ramps)	LS	LUMP SUM	_____.____
1738	SPV.0105 Special 464. Salvage and Install Traffic Signal Cabinet (USH 14 & Lexington)	LS	LUMP SUM	_____.____
1740	SPV.0105 Special 465. Salvage and Install Traffic Signal Cabinet (USH 14 & Pontiac)	LS	LUMP SUM	_____.____
1742	SPV.0105 Special 466. Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 SB)	LS	LUMP SUM	_____.____
1744	SPV.0105 Special 467. Salvage and Install Traffic Signal Cabinet (USH 14 & IH 39 NB)	LS	LUMP SUM	_____.____
1746	SPV.0105 Special 468. Salvage and Install Traffic Signal Cabinet (USH 14 & Deerfield)	LS	LUMP SUM	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1748	SPV.0105 Special 469. Interim Traffic Signals for Intersections (USH 14 & IH 39 SB Ramps)	LS	LUMP SUM	_____._____
1750	SPV.0105 Special 470. Interim Traffic Signals for Intersections (USH 14 & IH 39 NB Ramps)	LS	LUMP SUM	_____._____
1752	SPV.0105 Special 471. Temp Traffic Signals for Intersections-Takeover (STH 26 & IH 39 SB Ramps)	LS	LUMP SUM	_____._____
1754	SPV.0105 Special 472. Temp Traffic Signals for Intersections-Takeover (STH 26 & IH 39 NB Ramps)	LS	LUMP SUM	_____._____
1756	SPV.0105 Special 473. Temp Traffic Signals for Intersections - Takeover (USH 14 & IH 39 SB)	LS	LUMP SUM	_____._____
1758	SPV.0105 Special 474. Temp Traffic Signals for Intersections - Takeover (USH 14 & IH 39 NB)	LS	LUMP SUM	_____._____
1760	SPV.0105 Special 475. Temp Traffic Signals for Intersections - Modification (USH 14 & STH 26)	LS	LUMP SUM	_____._____
1762	SPV.0105 Special 476. Temp Traffic Signals for Intersections - Local (Holiday Dr & Lexington Dr)	LS	LUMP SUM	_____._____
1764	SPV.0105 Special 477. Temp Traffic Signals For Intersections - Local (Morse St & Ryan Rd)	LS	LUMP SUM	_____._____
1766	SPV.0105 Special 478. Transport and Install State Furn Adaptive Cameras (STH 26 & Morse St)	LS	LUMP SUM	_____._____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1768	SPV.0105 Special 479. Transport and Install State Furn Adaptive Cameras (STH 26 & IH 39 SB Ramps)	LS	LUMP SUM	_____.____
1770	SPV.0105 Special 480. Transport and Install State Furn Adaptive Cameras (STH 26 & IH 39 NB Ramps)	LS	LUMP SUM	_____.____
1772	SPV.0105 Special 481. Transport and Install State Furn Adaptive Cameras (STH 26 & Kettering St)	LS	LUMP SUM	_____.____
1774	SPV.0105 Special 482. Transport and Install State Furn Adaptive Cameras (USH 14 & Lexington)	LS	LUMP SUM	_____.____
1776	SPV.0105 Special 483. Transport and Install State Furn Adaptive Cameras (USH 14 & Pontiac)	LS	LUMP SUM	_____.____
1778	SPV.0105 Special 484. Transport and Install State Furn Adaptive Cameras (USH 14 & IH 39 SB)	LS	LUMP SUM	_____.____
1780	SPV.0105 Special 485. Transport and Install State Furn Adaptive Cameras (USH 14 & IH 39 NB)	LS	LUMP SUM	_____.____
1782	SPV.0105 Special 486. Transport and Install State Furn Adaptive Cameras (USH 14 & Deerfield)	LS	LUMP SUM	_____.____
1784	SPV.0105 Special 487. Install State Furnished EVP Equipment (STH 26 & Morse Street)	LS	LUMP SUM	_____.____
1786	SPV.0105 Special 488. Install State Furnished EVP Equipment (STH 26 & IH 39 SB Ramps)	LS	LUMP SUM	_____.____
1788	SPV.0105 Special 489. Install State Furnished EVP Equipment (STH 26 & IH 39 NB Ramps)	LS	LUMP SUM	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1790	SPV.0105 Special 490. Install State Furnished EVP Equipment (STH 26 & Kettering Street)	LS	LUMP SUM	_____.____
1792	SPV.0105 Special 491. Install State Furnished EVP Equipment (Deerfield Drive & Ryan Road)	LS	LUMP SUM	_____.____
1794	SPV.0105 Special 492. Install State Furnished EVP Equipment (USH 14 & Lexington)	LS	LUMP SUM	_____.____
1796	SPV.0105 Special 493. Install State Furnished EVP Equipment (USH 14 & Pontiac)	LS	LUMP SUM	_____.____
1798	SPV.0105 Special 494. Install State Furnished EVP Equipment (USH 14 & IH 39 SB)	LS	LUMP SUM	_____.____
1800	SPV.0105 Special 495. Install State Furnished EVP Equipment (USH 14 & IH 39 NB)	LS	LUMP SUM	_____.____
1802	SPV.0105 Special 496. Install State Furnished EVP Equipment (USH 14 & Deerfield)	LS	LUMP SUM	_____.____
1804	SPV.0105 Special 497. Install Traffic Signal Cabinet (Deerfield Dr & Ryan Rd)	LS	LUMP SUM	_____.____
1806	SPV.0105 Special 500. Gateway Signage (Northbound)	LS	LUMP SUM	_____.____
1808	SPV.0105 Special 501. Gateway Signage (Southbound)	LS	LUMP SUM	_____.____
1810	SPV.0165 Special 700. Longitudinal Grooving Bridge Deck **P**	163,606.000 SF	_____.____	_____.____
1812	SPV.0165 Special 851. Temporary Wall Wire Faced Mechanically Stabilized Earth	8,210.000 SF	_____.____	_____.____
1814	SPV.0165 Special 852. Wall Modular Block Gravity R-53-46	790.000 SF	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1816	SPV.0165 Special 853. Wall Concrete Panel Mechanically Stabilized Earth, R-53-42 **P**	11,090.000 SF	_____.____	_____.____
1818	SPV.0165 Special 854. Wall Concrete Panel Mechanically Stabilized Earth, R-53-43 **P**	12,140.000 SF	_____.____	_____.____
1820	SPV.0165 Special 855. Wall Concrete Panel Mechanically Stabilized Earth, R-53-44 **P**	4,420.000 SF	_____.____	_____.____
1822	SPV.0165 Special 856. Wall Concrete Panel Mechanically Stabilized Earth, R-53-45 **P**	4,940.000 SF	_____.____	_____.____
1824	SPV.0165 Special 857. Wall Concrete Panel Mechanically Stabilized Earth, R-53-47 **P**	12,961.000 SF	_____.____	_____.____
1826	SPV.0165 Special 858. Wall Concrete Panel Mechanically Stabilized Earth, R-53-48 **P**	58,116.000 SF	_____.____	_____.____
1828	SPV.0165 Special 859. Wall Concrete Panel Mechanically Stabilized Earth, R-53-49 **P**	17,255.000 SF	_____.____	_____.____
1830	SPV.0165 Special 860. Wall Concrete Panel Mechanically Stabilized Earth, R-53-53 **P**	4,270.000 SF	_____.____	_____.____
1832	SPV.0165 Special 861. Wall Concrete Panel Mechanically Stabilized Earth, R-53-54 **P**	4,790.000 SF	_____.____	_____.____
1834	SPV.0165 Special 862. Wall Concrete Panel Mechanically Stabilized Earth, R-53-55 **P**	13,432.000 SF	_____.____	_____.____

Proposal ID: 20181211001 **Project(s):** 1005-10-77, 1005-10-83, 1005-10-87, 5569-00-71

Federal ID(s): WISC 2019001, N/A, WISC 2019004, WISC 2019002

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1836	SPV.0165 Special 863. Wall Concrete Panel Mechanically Stabilized Earth, R-53-56 **P**	7,210.000 SF	_____.____	_____.____
1838	SPV.0165 Special 864. Wall Concrete Panel Mechanically Stabilized Earth, R-53-57 **P**	7,460.000 SF	_____.____	_____.____
1840	SPV.0165 Special 865. Wall Concrete Panel Mechanically Stabilized Earth, R-53-58 **P**	3,956.000 SF	_____.____	_____.____
1842	SPV.0165 Special 866. Wall Concrete Panel Mechanically Stabilized Earth, R-53-59 **P**	4,735.000 SF	_____.____	_____.____
1844	SPV.0165 Special 867. Wall Modular Block Gravity Landscape STH 26	350.000 SF	_____.____	_____.____
1846	SPV.0165 Special 868. Wall Modular Block Gravity Landscape Ryan Road	530.000 SF	_____.____	_____.____
1848	SPV.0180 Special 001. Compost	55,700.000 SY	_____.____	_____.____
1850	SPV.0180 Special 150. Temporary Erosion Mat Class I Type B	47,400.000 SY	_____.____	_____.____

Section: 0001 **Total:** _____.____

Total Bid: _____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE