HIGHWAY WORK PROPOSAL

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

Proposal Number: 040

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
St Croix	8110-02-73	N/A	Stillwater - Somerset; Loop Trail System(Ped/Bike Facilty)	STH 064

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

Proposal Guaranty Required: $75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: March 13, 2018 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time October 26, 2018	
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

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

Notary Seal

For Department Use Only

Type of Work:
Excavation, Base, Concrete Pavement, HMA Pavement, Curb and Gutter, Sidewalk, Signs, Pavement Markings, Landscaping, Street Lighting

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

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

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:

http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 8110-02-73, Loop Trail System (Ped/Bike Facility), Stillwater - Somerset, STH 64, St. Croix County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2018 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.
100-005 (20170615)

2. Scope of Work.

The work under this contract shall consist of common excavation, removing asphaltic surface milling, aggregate base dense, HMA pavement, concrete curb and gutter, concrete sidewalk, picnic shelter installation, landscaping, lighting, permanent signing, permanent marking and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

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

Provide the 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.

Complete construction activities for all activities as outlined below for the Main Trailhead site prior to 11:59 AM July 3, 2018. Required construction completion includes all work necessary to open the Main Trailhead parking lot (including pavement marking), shared use path from the parking lot to the pedestrian underpass, site grading and restoration, electrical installation, concrete pad (including picnic shelter concrete pad) and interpretive panel base installation, and grading and base aggregate dense installation within the Main Trailhead. In addition, complete all work required in the pedestrian underpass including anti-graffiti

coating, and replacement of lighting fixtures. Exception to Main Trailhead completion includes final asphalt pavement of remaining trails, landscaping installation of trees and shrubs and picnic shelter structure. Paving of the remainder of the trails cannot occur until the County contractor has completed the restroom facility concrete pad and sidewalk.

Complete construction activities of Houlton School Circle, from Main Street and the easternmost school driveway between May 23, 2018 and September 1, 2018 to minimize impact to school activities and bussing.

Contractor to hold weekly construction meetings. Include MnDOT and St. Croix County contractors and representatives.

The contractor is advised to mobilize construction equipment that is a size suitable for maneuvering in the limited area throughout the project. There are many movement limitations both horizontally and vertically in the project limits (trees, overhead wires, poles, etc). The contractor shall be responsible for any damage done to objects inside the project limits.

Minimize the amount of dust created from construction. During construction operations, if aggregate, slurry from saw cutting, or other construction materials are in the travel way, the contractor shall immediately clean up the area.

Schedule of Operations

The schedule of operations shall conform to the construction staging as shown in the construction staging plans, unless the engineer approves modifications to the schedule in writing. Staged construction is needed to construct the trailheads, shared use paths, mill and overlay and reconstruct both the Main Street/Hilltop Drive and State Street/Rainbow Street intersections while maintaining local traffic flow. The brief outline below of the construction staging schedule is not intended to dictate contractor means and methods, but is intended to be a guide for completion of the work using the staging and traffic control shown in the plans. Notify the engineer, in writing, of any proposed modifications to the proposed schedule.

<u>Stage 1A</u>

- Plant seedlings at River Bridge Abutment area, bluff restoration in the Spring 2018 as directed by the engineer to comply with the St. Croix Crossing bridge ACOE permit.
- Construct temporary bypass road at Hilltop Drive and Main Street.
- Construct Main Trailhead and parking lot.
- Complete required modifications to Pedestrian Underpass.
- Optional: Mill and overlay local roadways.

Stage 1B

- Construct the intersection of Hilltop Drive and Hilltop Road.
- Construct the road realignments of Hilltop Drive and Main Street.
- Optional: Mill and overlay local roadways.

Stage 2

- Construct Hilltop Trailhead and parking lot.
- Construct old STH 64 hill bicycle and pedestrian trails.
- Construct old CTH E hill.
- Construct the Hawk Street North shared use path.
- Construct the shared use paths along Houlton School Circle and Main Street.
- Mill and overlay local roadways.

Stage 3

- Complete construction of Hawk Street South, Snow Road, the park and ride lot, and the connecting trail.
- Finish all mill and overlay operations.

Migratory Birds

Swallow and other migratory birds' nests have been observed inside the existing pedestrian underpass and beneath the STH 35 overpass. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established, or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds, or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Preventing nesting in the pedestrian underpass is incidental to the anti-graffiti coating operations of the pedestrian underpass.

Coordination with Businesses and Residents

The department will arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week prior to the start of work under this contract and hold a meeting one week prior to each traffic staging change. The department will arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices

and mailings for the meeting(s). The department will schedule the meeting(s) with at least two weeks' prior notice to allow for these notifications.
stp-108-060 (20141107)

Houlton Elementary
The following individuals have requested contact prior to construction:

> Timothy Erickson, Chief Financial and Operating Officer, Hudson School District Administrative Service Center, 644 Brakke Drive, Hudson WI 54016; Telephone: (715) 377-370; Email: erickstj@hudsonraiders.org
>
> Sue Hellmers, Houlton Elementary School Principal, 70 County Road E Houlton, WI 54082; Telephone: (715) 377-3850; Email: hellmesh@hudson.k12.wi.us

Provide the project schedule and staging information as it relates to the school year and impact to bussing and pedestrians.

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

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

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

Submit a schedule and description of Clearing operations with the ECIP 14 days prior to any Clearing or Roadside 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 or Roadside Clearing operations, and list those additional measures in the ECIP.

ECIP implementation
Prior to submitting the ECIP, arrange and conduct an onsite pre-ECIP meeting between the contractor, WisDOT representatives, and WisDNR. The ECIP will not be considered for approval until the conclusion of the Pre-ECIP meeting.

4. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 35, STH 64 and STH 35/64 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, May 25, 2018 to 6:00 AM Tuesday, May 29, 2018 for Memorial Day;
- From noon Tuesday, July 3, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day;
- From noon Friday, August 31, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day.

stp-107-005 (20050502)

5. 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, USACOE GP-002-WI, 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 Beth Cunningham, (715) 635-4973, beth.cunningham@dot.wi.gov.
stp-107-054 (20080901)

6. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

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

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.
stp-107-055 (20130615)

7. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

The St. Croix River is classified as a navigable waterway.
stp-107-060 (20150630)

8. Utilities.

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

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

AT&T Wisconsin (COMLN) has underground facilities are present along Hilltop Drive in the west right-of-way from Station 1201+00 through Station 1207+50, Hilltop Drive alignment. These facilities cross Hilltop Road at Station 1211+30, Hilltop Road alignment.

Underground facilities are along Main Street (Old STH 35/64) from Station 2015+70 to Station 2049+30, Main Street alignment, in the east right-of-way. Crossings occur on the Main Street alignment at Stations 2018+25, 2020+70, 2030+85, 2035+70 and 2042+60.

Underground facilities are along the State Street, Houlton School Circle intersection realignment from Station 0+80 to Station 4+00, State Street/Houlton School Circle alignment, in the east and southeast right-of way.

AT&T Wisconsin also has underground facilities along Houlton School Circle from the intersection with Main Street, Station 500+02 Houlton School Circle alignment, through the new Trailhead Parking Lot. The facilities are in both the north and south right-of-way along this section of Houlton School Circle. Crossings occur on the Houlton School Circle alignment at Stations 504+30, 506+85, 510+20 and 512+80.

Underground facilities are along the Shared-use Path from Station 190+30 to Station 192+30, Shared-use Path alignment, north and south of the path. The facilities cross the Shared-use Path alignment at Stations 191+25 and 191+38.

Main Street

- Facilities parallel from Station 2004+00 to 2012+00, LT and RT in mill and overlay area, no conflict anticipated.
- Facilities parallel from Station 2015+75 to 2027+44, RT in mill and overlay area, no conflict anticipated.
- Copper facility crossings at Station 2018+25 are below existing ditch grades, no conflicts anticipated.
- Fiber facility crossing at Station 2020+80 is below existing ditch grades, no conflicts anticipated.
- Copper facilities from Station 2027+44 to 2029+00, RT in small fill area, no conflict anticipated.
- Copper facilities from Station 2029+25 to 2030+25, RT 30 feet in conflict with ditch cut. Facilities will be exposed and lowered to a minimum clearance of 18-inches for proposed ditch cut. Work to be completed during construction, anticipated to be completed in 1 working day.

- Copper facilities from Station 2030+50 to 2034+50, RT in small fill area or at the construction limits, no conflict anticipated.
- Copper facility crossing at Station 2030+85 is below existing ditch grades, no conflicts anticipated.
- Copper facilities from Station 2034+50 to 2078+42, RT in mill and overlay area, no conflict anticipated.

Houlton School Circle

- Facilities parallel from Station 500+50 to 511+50, LT are clear of excavation area or below sub-cuts, no conflicts anticipated.
- Copper facility crossings at Station 504+28, 506+92 and 510+20 are below existing ditch grades, no conflicts anticipated.
- Fiber facility crossing at Station 512+75 is below existing ditch grades, no conflicts anticipated.
- Copper facilities from Station 511+50 to 513+00, LT 21 feet to 25 feet in conflict with proposed shared use path sub-cut. Facilities will be exposed and lowered to a minimum clearance of 18-inches for proposed shared use path sub-cut. Work to be completed during construction (anticipated after school is released for summer break). Work anticipated to be completed in 1 working day.
- Facilities parallel from Station 513+00 to 520+00, LT are clear of excavation area or below sub-cuts, no conflicts anticipated.
- Facilities parallel from Station 502+50 to 522+55, RT are clear of excavation area or below sub-cuts, no conflicts anticipated.
- Copper facilities from Station 513+00 to 522+50, LT are discontinued in place.
- Copper facility crossing at Station 519+34, RT 25 feet is 30-inches below existing ditch grade, no conflicts anticipated.
- Fiber facility at Station 520+00, LT 65 feet under proposed driveway culvert, no conflicts anticipated.

State Street, Rainbow Street and Houlton School Circle Intersection

- Facilities parallel from Station 0+77 to 5+50, RT in mill and overlay area, no conflict anticipated.
- Copper facility crossing at Station 2+40 is below existing ditch grades, no conflicts anticipated.

CTH E

Existing overhead facilities from Station 1100+00 to 1108+00, RT (with starter pole at Station 2+00, RT State Street) will remain in place, no conflicts anticipated.

Hilltop Drive

- Copper facilities from Station 1201+00 to 1202+50, LT 14 feet to 21 feet are 24-inches below the existing grade, no conflicts anticipated. Care must be taken when working near these facilities; they will remain in place during construction.

- Copper facilities from Station 1202+50 to 1207+00, LT are at or beyond excavation limits. After final subgrade is complete, and prior to placement of topsoil, contact AT&T Wisconsin with 5 working days' notice to expose cable and adjust pedestal at Station 1204+00, 38 feet LT. Work anticipated to take 1 working day.

Baldwin Telecom (COMLN) has an underground fiber facility along Main Street (Old STH 35/64) from Station 2014+40 to Station 2020+40, Main Street Alignment, in the west right-of-way. The fiber facility Crosses the Main Street alignment at Station 325+50.

An underground fiber facility is also along south right-of-way of Houlton School Circle from Station 6+00, Houlton School Circle alignment (west of Main Street) to Station 512+80, Houlton School Circle alignment (east of Main Street). The fiber facility is in south right-of-way until it crosses the Houlton School Circle alignment at Station 512+80 where the fiber leaves the project area.

- Fiber optic cable Station 512+82, 35 feet LT, Houlton School Circle alignment, in conflict with ditch cut section.
- Fiber optic cable Station 519+67, 34 feet LT, Houlton School Circle alignment, in conflict with culvert apron endwall.

Contact Baldwin Telecom after the subgrade and culvert is staked at these locations. Baldwin Telecom will lower the fiber optic out of conflict, anticipated to take 10 working days.

Midwest Natural Gas (GSPTR) has a facility present along Hilltop Drive in the west right-of-way from Station 1201+00 through Station 1203+30, Hilltop Drive alignment. The facility then crosses to the east side of Old STH 64, running under the new trailhead parking lot location, and continues to the new Hilltop Drive and Main Street (Old STH 35/64) intersection.

There is also a facility crossing Hilltop Drive at Station 1205+85, Hilltop Drive alignment, then continuing in the west right-of-way to Station 1206+45. A facility crosses Hilltop Road at Station 1211+25, Hilltop Road alignment.

A facility runs along Main Street (Old STH 35/64) from Station 2004+00 to Station 2048+75, Main Street Alignment, in the east right-of-way. Crossings occur on the Main Street alignment at Stations 2015+65, 2017+90, 2028+40, 2040+45 and 2046+75.

A facility runs along the State Street, Houlton School Circle intersection realignment from Station 1+00 to Station 4+60, State Street/Houlton School Circle alignment, in the east, west and northwest right-of way. The facility crosses Houlton School Circle at Station 2+50. This facility also runs along Rainbow Street in the north right-of-way.

Midwest Natural Gas also has a facility along Houlton School Circle from the intersection with Main Street, Station 500+02 Houlton School Circle alignment, through the new Trailhead Parking Lot. The facilities are in the north right-of-way along this section of Houlton School Circle. Crossings occur on the Houlton School Circle alignment at Stations 500+55 and 508+15.

- Gas facility from Station 1201+00, 15 feet LT to Station 1202+43, 32 feet LT, Hilltop Drive alignment, in conflict with intersection reconstruction.
- Gas facility Station 1203+25, 5 feet LT, Hilltop Drive alignment, in conflict with 24-inch culvert.
- Gas facility from Station 1203+33, 12 feet RT to Station 1208+50, 80 feet RT, Hilltop Drive alignment, in conflict with grading for Trailhead Parking Lot.
- Gas facility Station 1204+05, 77 feet RT, Hilltop Drive alignment, in conflict with 18-inch culvert.
- Gas facility Station 2026+36, 18 feet RT, Main Street alignment, in conflict with inlet.
- Gas facility Station 2027+87, 19 feet LT to Station 2029+10, 5 feet RT, Main Street alignment, in conflict with storm sewer and intersection reconstruction.
- Gas facility from Station 2029+24 to Station 2029+56, 6-8 feet RT, Main Street alignment, in conflict with 30 inch culverts.
- Gas facility Station 2033+00, 23 feet RT to Station 2034+50, 21 feet RT, Main Street alignment, in conflict with grading.

Midwest Natural Gas plans to relocate the facilities out of conflict beginning mid-April, anticipated to take 10 working days to complete.

- Gas facilities at Station 500+56 and Station 513+50 Houlton School Circle alignment, in conflict with 24-inch culvert replacement and shared-use path.

Midwest Natural Gas plans to adjust facilities during construction. Contact Justin Jacobs, (715) 797-0590, ten working days prior to final staking for the culverts is complete and once again when the staking is complete. Midwest Natural Gas will then adjust the facilities, anticipated to take two working days to complete.

St Croix Electric Cooperative (ELCTY) has overhead facilities along Frontage Road C from Station 232+70 to Station 260+50, Frontage Road C alignment, in the north and south right-of-way. Crossings occur on the Frontage Road C alignment at Stations 235+20, 242+10, 245+60 and 257+60.

No conflict anticipated.

Xcel Energy (ELCTY) has overhead facilities are along Old STH 64, Old CTH E from Station 1060+14 to Station 1063+24, Bicycle Path alignment. There are overhead facility crossings of the Bicycle and Pedestrian Paths at Stations 1061+53, 1062+42, 1066+70 and 1078+47, Bicycle Path alignment.

Overhead facilities are present along Hilltop Drive in the west right-of-way from Station 1201+00 through Station 1207+50, Hilltop Drive alignment. There are overhead facility crossings of Hilltop Drive at Stations 1201+41 and 1206+73, Hilltop Drive alignment. Overhead facilities cross Hilltop Road at Station 1211+30, Hilltop Road alignment.

Overhead facilities run along Main Street (Old STH 35/64) from Station 2013+55 to Station 2049+30, Main Street alignment, in the east right-of-way. Overhead crossings occur on the Main Street alignment at Stations 2014+80, 2016+40, 2018+10, 2018+20 (underground), 2030+30, 2035+68, 2043+70 and 2044+65.

Overhead facilities are along the State Street, Houlton School Circle intersection realignment from Station 1+30 to Station 4+60, State Street/Houlton School Circle alignment, in the east and southeast right-of way. Underground facilities are along the State Street, Houlton School Circle intersection realignment from Station 2+50 to Station 3+70, State Street/Houlton School Circle alignment, in the northwest right-of way. Overhead facility crossings are on the State Street/Houlton School Circle alignment at Stations 1+30, 1+80 and 3+80.

There are overhead facility crossings on the Rainbow Street alignment at Stations 0+60 and 1+30. Xcel Energy also has overhead facilities along Houlton School Circle from the intersection with Main Street, Station 500+40 to Station 514+50, Houlton School Circle alignment. The facility then continues underground through the new Trailhead Parking Lot. The facilities are in both the north and south right-of-way along this section of Houlton School Circle. Overhead crossings occur on the Houlton School Circle alignment at Stations 500+40, 503+60, 506+70, 508+80 and 512+20.

- Pole Station 1063+24, 25 feet RT, Bike Path alignment, in conflict with grading.

  Xcel Energy plans to remove the guy pole and down guy prior to construction in this area. The facilities will be reinstalled after grading is complete.

- Pole Station 1201+41, 14 feet LT, Hilltop Drive alignment, in conflict with intersection reconstruction.

  Xcel Energy plans to relocate the pole 30 feet north and 8-10 feet west out of conflict prior to construction in the area.

- Pole Station 1204+00, 41 feet LT, Hilltop Drive alignment, in conflict with grading, will have a 1 foot cut at its location.

Xcel Energy plans to reset a new pole with 1 foot more depth to account for the cut at this location. Care must be taken when working around the new pole; it will remain in place during construction.

· Pole Station 1206+74, 65 feet RT, Hilltop Drive alignment; Station 2028+15, 91 feet LT, Main Street alignment, in conflict with grading, will have 2 to 4 feet of fill placed at its location.

Xcel Energy plans to remove the guy pole and down guy prior to construction in this area. The facilities will be reinstalled after grading is complete.

· Pole Station 500+41, 42 feet RT, Houlton School Circle alignment. Maintain 2 feet separation between pole and the excavation for the culvert pipe. No conflict anticipated.

Contact Xcel Energy to schedule a pole hold with 3 working days' notice provided.

9. Traffic.

A General

Coordinate all traffic handling with the engineer. Notify the engineer at least two working days (48 hours) in advance of any changes in traffic routing or restrictions.

Employ such flag person, signs, barricades, and drums as may be necessary to safeguard or protect hazards in the work zone, such as exposed manholes or drop offs for vehicles and direct traffic at locations where construction operations may interfere or restrict smooth flow of traffic.

B Traffic Staging

Stage 1A

- Use flagging operations as necessary to complete work on local streets.
- Houlton School Circle east of Hawk Street is closed to traffic.
- Switch traffic to temporary bypass road at Hilltop Drive and Main Street when completed

Stage 1B

- Hilltop Drive traffic using temporary bypass road.
- Use flagging operations as necessary to complete work on local streets.

Stage 2

- Houlton School Circle and Main trailhead parking lot are open to traffic.
- Shift traffic from temporary bypass to newly constructed Hilltop Drive for construction of Hilltop Trailhead and parking lot, and old STH 64 shared use path.
- Use flagging operations as necessary to complete work on local streets.

Stage 3

- Hawk Street south and park and ride site are closed to traffic.
- Use flagging operations as necessary to complete work on local streets.

C Vehicle Access

Houlton Elementary School shall have access at all times during the work along Houlton School Circle east of Main Street. Do not construct milling and paving operations on Houlton School Circle during student drop-off and pick-up times, 6:30 AM – 9:00 AM and 2:00 PM – 4:00 PM.

Maintain local vehicle traffic access to properties within the work zone that do not have alternate access available outside the work zone, at all times, except as allowed herein.

Keep all private entrances accessible at all times, unless permission to temporarily close the entrance is obtained from the property owner. Contact the property owner in writing 72 hours prior to removing any existing entrance in order to coordinate any temporary closures. Restore private entrances, including gravel surface, within 12 hours of removal, except vehicle access to a property driveway may be closed for a maximum of 7 calendar days to complete concrete curb and gutter, concrete driveway, and concrete sidewalk items at the driveway approach.

Coordinate with each business for the best time to construct driveways so as not to interrupt business operations during open hours. Construct driveway approaches to commercial properties in stages if the property does not have an alternate access available so that at least one access is maintained to each business at all times.

Maintain emergency vehicle access to all properties at all times.

Temporary lane closures and/or short-term halting of traffic on Main Street, Hilltop Drive, and Houlton School Circle will require flaggers. All traffic control items and flaggers for any temporary lane closure for construction and delivery of materials are incidental to the contract.

Do not store vehicles, equipment, or materials on adjacent or intersecting streets beyond the project limits without specific approval of the engineer. Do not park or stage equipment vehicles or construction materials within the clear zone.

D Pedestrian Access

Pedestrian and bicycle access to the shared use path shall be accessible at all times from either the Park and Ride Lot to the new river bridge in stages 1 and 2, unless active construction is occurring on the trail. The bike path shall be accessible at all times during stage 3 from the main trailhead area to the new river bridge unless active construction is occurring on the trail. Provide a 2-week rolling schedule at the weekly progress meetings to indicate potential closures of the trail for notification to the public.

E Advance Notification
Notify the St. Croix County Sheriff Department; Town of St. Joseph Fire Department; Town of St. Joseph Town Chairman; Rob Krejci, St. Croix County Highway Department Commissioner; Wisconsin State Patrol; area EMS; Houlton Elementary School; and Hudson School District 48 hours in advance of change in traffic control staging and all closures of intersecting side streets. Notifications must be given by 4:00 PM on Thursday for any such work to be done on the following Monday.

Wisconsin Lane Closure System Advance Notification
Provide the following advance notification for state highway lane closures 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.
stp-108-057 (20161130)

10. Notice to Contractor: Work by Others, St. Croix County, County owned Facilities.

Portions of the main trailhead area are owned by St. Croix County. The department has obtained a construction permit to construct on County owned lands. Coordinate with the County and the engineer in the field for the following: Tracking pad location; location of the amenities including concrete pads, interpretive panel base locations, landscaping layout, electrical conduits; and any washing of equipment and/or concrete washout areas.

The County will be constructing a maintenance building near the temporary waste site along Hawk Street. Coordinate with the County prior to final grading and restoration of waste site and removal the existing temporary driveway.

Previous septic system and well installation was completed by St. Croix County contractor in fall, 2017. Protect the previously installed facilities from damage. Notify St. Croix County during grading operations adjacent to previously installed facilities. Restroom facility installation will begin in July 2018; coordination is required. In addition, St. Croix County will be installing picnic tables, benches, trash containers and recycling containers upon completion of the main trailhead operations and hilltop trailhead operations.

Invite County representatives to the weekly construction progress update meetings.

11. Notice to Contractor: Work by Others, MnDOT.

Construction operations will be ongoing on the Stillwater Lift Bridge by MnDOT (MnDOT project 8217-4654D), beginning fall 2017 and currently scheduled for completion on June 15, 2019. Schedule is subject to change based on MNDOT construction efforts. Coordinate work activities at the Wisconsin abutment, including guardrail removal, railing installation, permanent marking, and other items as required. Invite MnDOT and MnDOT contractor representatives to the weekly construction progress update meetings. The MnDOT project Contact Eric Embacher at (651) 366-4302 and eric.embacher@state.mn.us; and Eric Rustad at (651) 366-4303 and eric.rustad@state.mn.us. The Lift Bridge Conversion Project construction plans can be obtained by contacting Beth Cunningham, (715) 635-4973, beth.cunningham@dot.wi.gov.

12. Notice to Contractor: Historical properties.

Kolliner Park and Tourist Campsite are historical properties. Do not stage equipment or materials in either site outside of the highway right or way along old STH 64. Minimize entrance into these areas during construction operations required in the plans.

13. Roadside Clearing, Item 202.0105

This special provision describes trimming trees and roadside clearing. Conform to standard specification 202 as modified in this special provision.

Add the following to the end of standard spec 202.3 (2):

Trim and care for trees following University of Wisconsin – Extension guidance, publication A1817, "Caring for your established shade trees", available from www.learningstore.uwex.edu/Assets/pdfs/A1817.pdf

Add the following to the end of standard spec 202.3 (3):

If roots beneath drip line are encountered during excavation, trim roots at a location that minimizes damage.

Add the following to the end of standard spec 203.3 (1):

Branches to be trimmed shall be marked prior to removal and approved by the engineer.

Add the following to the end of standard spec 203.3 (2):

A certified arborist must do the tree trimming and post-trimming care of the trimmed trees. Rake debris in the TLE areas and remove all leaves and sticks/debris larger than 1/4 –inch in diameter.

14. Removing Cable Guard Terminals, Item 204.9060.S.01.

A Description
This special provision describes removing existing cable guard terminals. This work shall be according to the plans, standard detail drawings, and as hereinafter provided.

B (Vacant)

C Construction
Fully remove cable guard terminal posts, footings, and ground anchors. Dispose of all materials and debris.

D Measurement
The department will measure Removing Cable Guard Terminals by each individual unit, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Cable Guard Terminals	EACH

Payment is full compensation for all labor and materials needed to complete the work.

15. Removing Traffic Control Barricades Type III Permanent, Item 204.9060.S.02.

A Description
This special provision describes removing traffic control barricades type III permanent in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

All traffic control barricades Type III shall be stacked and with salvaged barricade bases separated. Notify the St. Croix County Highway Department's office a minimum of three days prior to delivery of the signs to the county highway shop. Contact Joe Murtha at (715) 760-1910 (joe.murtha@co.saint-croix.wi.us) or Jim Krizan at (715) 760-1904 (james.krizan@co.saint-croix.wi.us) for barricade and barricade base delivery coordination.

Deliver barricades and bases to:

St. Croix County Highway Department
920 3rd Street
Hammond, WI 54015

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Traffic Control Barricades Type III Permanent as each individual unit, acceptably completed and delivered.

E Payment

Add the following to standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.02	Removing Traffic Control Barricades Type III Permanent	EACH

204-025 (20041005)

16. Removing Cable Guard 3 Strand, Item 204.9090.S.01.

A Description

This special provision describes removing existing 3 strand cable guard. This work shall be according to the plans, standard detail drawings, and as hereinafter provided.

B (Vacant)

C Construction

Fully disconnect cable guard from the end terminals and remove both strands and supports posts and foundations. Dispose of all materials and debris.

D Measurement

The department will measure Removing Cable Guard 3 Strand in linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Cable Guard 3 Strand	LF

Payment is full compensation for all labor and materials needed to complete the removal, including the end terminals and anchor foundations.

17. Removing Electrical Conductors from Existing Conduit, Item 204.9090.S.02.

A Description
This special provision describes removing Electrical Conductors from Existing Conduit according to the pertinent provisions of standard spec 204 and as hereinafter provided, and disposing of the removed material off 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 Wires from Existing Conduit in linear feet, of conduit from where wires shall be removed and disposed of, acceptably completed. The vertical length and wire slack shall be incidental to this pay item.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S	Removing Electrical Conductors from Existing Conduit	LF

Payment is full compensation for removing electrical wires from conduits and disposal of all removed materials.

stp-204-025 (20150630)

18. Select Borrow.

Conform to the requirements of standard spec 208 and as hereinafter provided.

Material
Furnish and use material that consists of granular material meeting the following requirements: granular backfill, Grade 2.
stp-208-005 (20031103)

19. QMP Base Aggregate.

A Description

A.1 General

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

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed and paid for under the Aggregate Detours, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:

1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

A.2 Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a contract quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

A.2.1 Quality Control Plan

(1) Submit an abbreviated quality control plan consisting of the following:

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

A.2.2 Contractor Testing

1.

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

[1] Submit production test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] If the actual quantity overruns 6,000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[3] If the actual quantity overruns 9000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[4] For 3-inch material or lift thickness of 3-inch or less, obtain samples at load-out.

[5] Divide the aggregate into uniformly sized sublots for testing

2. Stockpile testing for concrete pavement recycled in place will be sampled on the first day of production.

3. Until a four point running average is established, individual placement tests will be used for acceptance. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

A.2.3 Department Testing

(1) The department will perform testing as specified in B.8 except as follows:

(3) Department stockpile verification testing prior to placement is optional for contract quantities of 500 tons or less.

B Materials

B.1 Quality Control Plan

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

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

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

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

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

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

B.4.3 Control Charts

(1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within one business day after obtaining a sample. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.
2. Department QV tests.
3. Department IA tests.
4. Four-point running average of the QC tests.

(3) Except as specified under B.8.2.1 for nonconforming QV placement tests, include only QC placement tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 Contractor Testing

(1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.

(2) Perform one stockpile test from each source prior to placement.

(3) Test gradation once per 3000 tons of material placed or fraction thereof. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples or lift thickness of 3-inch or less from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only

material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(4) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

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

(6) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.

(7) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:

Gradation..... AASHTO T 27
Material finer than the No. 200 sieve..... AASHTO T 11

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.
2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

(1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

(1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.

(2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

(1) Do not blend additional material on the roadbed to correct gradation problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:

1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after four additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after four additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to

determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:

1. Perform one stockpile test from each source prior to placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates or for a lift thickness of 3-inch or less, the department will collect samples at load-out. The department will split each sample, test half for QV, and retain half.

(4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

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

B.8.3 Independent Assurance

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C (Vacant)

D (Vacant)

E Payment

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

(2) For material represented by a running average exceeding a control limit, the department will reduce pay according to CMM 8-10.5.2 for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

stp-301-010 (20170615)

20. Shaping Roadway, Item 305.0502.S.

A Description

This special provision describes blading the existing shoulder aggregates on the prepared foundation across the pavement removal area, and shaping and compacting the aggregate according to the pertinent provisions of standard spec 305, as shown on the plan, and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Shaping Roadway by the station along the centerline of each roadway.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
305.0502.S	Shaping Roadway	STA

Payment is full compensation for all blading, shaping, and compacting; and for preparing the foundation. The department will pay for additional base aggregate under the bid item Base Aggregate Dense 1-1/4 inch.

stp-305-005 (20080902)

21. Coloring Concrete Custom, Item 405.0200.

This special provision describes coloring concrete 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 Insignia White: 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 insignia white color, which is similar to Federal Standard 595 - FS 17925.
- For Dark Gray: 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 the dark gray color, which is similar to Federal Standard 595 - FS 16231.
- For Dark Tan: 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 the dark tan color, which is similar to Federal Standard 595 – FS 30372.
- For Light Tan: use the correct synthetic pigment at a loading by weight of total cementitious material in the mix. Match the concrete color in reasonably close conformance with light tan color, which is similar to Federal Standard 595 – FS 20460.

Replace standard spec 405.2.1.1(3) with the following:

(3) The department will accept the light tan and dark tan colors based on comparison to color examples on the St. Croix River Crossing Bridge. The department will accept the dark gray and insignia white color based on comparison to Federal Color Code examples. Provide samples for the department to approve 30 days prior to ordering concrete coloring.

stp-405-020 (20160607)

22. Concrete Pavement Joint Layout, Item 415.5110.S.

A Description

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

B (Vacant)

C Construction

Plan and locate all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete to prevent uncontrolled cracking. Submit a joint layout design to the engineer at least seven calendar days before paving each concrete area requiring joint layout. Do not lay out joints until the engineer has reviewed the joint layout

design. Mark the location of all concrete joints in the field. Follow the plan details for joints in concrete making adjustments as required to fit field conditions.

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

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

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

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

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

23. Concrete Staining B-55-226, Item 517.1010.S.01.

A Description
Furnish and apply a two-coat concrete stain to the exposed concrete surfaces of the slope paving area of Structure B-55-226, as detailed in the plans and as hereinafter provided.

B Materials
B.1 Mortar
Use mortar for sack rubbing the concrete surfaces as given in standard spec 502.3.7.5 or use one of the following products:

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

The mortar shall contain one of the following acrylic bonding admixtures mixed and applied 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 slope paved 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

Stain color to be Federal Color #20460 (Light Tan).

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 according to standard spec 502.3.7.5, using mortar as indicated above on concrete surfaces with open voids or honeycombing.

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

C.3 Staining Concrete Surfaces

Apply the concrete stain 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 slope paving until earthwork operations are completed to a point where this work can begin without receiving damage. Where this work is adjacent to exposed soil or pavement areas, provide temporary covering protection from overspray or splatter.

C.4 Test Areas

Prior to applying stain to the slope paving, apply the stain to sample panels measuring a minimum of 48-inches x 48-inches and constructed to demonstrate workmanship in the use

of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining. Prepare the concrete surfaces of the sample panels and apply stain using the same materials and in the same manner as proposed for the slope paving. 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 measure Concrete Staining B-55-226 in area by the square foot of surface, acceptably prepared and stained.

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S	Concrete Staining B-55-226	SF

Payment is full compensation for furnishing and applying the two coat system; for preparing the concrete surface; and for preparing the sample panels.
517-110 (20140630)

24. Fence Safety, Item 616.0700.S.

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

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

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
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)

25. Polyethylene Sheeting, Item 628.5505.

Conform to standard spec 628 as modified in this special provision.

Add to standard spec 628.3.9 the following:

(4) Cover roadway that has had asphalt and gravel removed with polyethylene sheeting when work is completed for the day, or prior to expected rain as directed by the engineer.

(5) Take care not to damage the polyethylene sheeting during installation, removal and storage. Polyethylene sheeting to be replaced if damaged beyond patch repair.

Add to standard spec 628.5.13 the following:

(2) Payment for the mobilization required for removal and installation sheeting as necessitated daily and for rain events to be paid under bid item Polyethylene Sheeting Mobilization.

26. Furnishing and Planting Plant Material.

This special provision describes the planting of many saplings in a large area. Conform to standard spec 632 as modified in this special provision.

Add to standard spec 632.2.2.1 (3) the following:

Plant Materials: All plants shall be grown within the states of Wisconsin, Minnesota, Iowa, Michigan, located within Zone 4b of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Agricultural Research Service, issued 2012, found online at http://planthardiness.ars.usda.gov/PHZMWeb/Default.aspx, unless otherwise approved by the engineer.

A list of sources for plants shall be furnished in accordance with standard spec 632.2.2.8 before planting begins for fall-planted plants and before March 15, 2018 for spring-planted plants. All sources will be subject to verification by the engineer.

Add to standard spec 632.2.9(1) the following:

Commercial screening material to be a double layer of screen wire-mesh acceptable to the engineer and installed as shown on the Planting Detail sheet.

Replace standard spec 632.3.3 (1) with the following:

Contractor to stake location of trees and shrubs for landscape inspector to review and approve. Staked locations shall not conflict with utilities or other site features.

Add to standard spec 632.3.7(3) the following:

Incorporate S100 compost into the planting holes.

Add to standard spec 632.3.7 the following:

(6) Plant 12-inch tall seedling, bare-root, selected species at a rate of 500 trees per restored acre in a 20%/80% combination of conifers (white pine and white spruce) and deciduous (bur oak, cottonwood, quaking aspen, and northern red oak). The trees will be planted on a roughly 9-feet by 9-feet grid pattern grouped randomly within the planting areas and as directed by the engineer. If additional trees are required, provide additional seedlings at the same species ratio as original.

Add to standard spec 632.3.13 the following:

(2) Apply a one-time application of deer/rabbit repellent.

(3) Budcap all conifer (white pine and white spruce) terminal leaders in accordance with MnDNR recommendations through the required planting care cycles: http://files.dnr.state.mn.us/forestry/ecssilviculture/tipsheets/tipsheet_6.pdf

27. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of $2,000 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.
stp-632-005 (20070510)

28. Electrical Wiring

Replace standard spec 655.3.1, General, paragraph (3) with the following:

(3) For cables entering each pull box, except loop detector lead in cables, provide an extra loop, approximately 50 feet long, to remain in each pull box. This loop of cable is in addition to the quantity needed to reach from the entrance conduit raceway end to the opening in the exiting conduit raceway.

29. 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.

30. Interpretive Panel Support Posts and Bases, SPV.0060.01.

A Description
This special provision describes the furnishing and installing all labor, equipment and materials to fabricate, construct and install the Interpretive Panel Bases and Posts according to the applicable standard specifications, the plan details, and the following. The graphic signs will be installed by others.

B Materials
Furnish materials that are according to standard spec 654. WisDOT is not providing the artwork or interpretive panels. Do not store interpretive panel posts, frames, or mounting plates on site.

B.1 Shop Drawing and Sample Submittals
Submittals and shop drawings shall comply with standard spec 105 signed by a professional engineer in the State of Wisconsin and the following:

B.2 Sign surface-mounted Frame Support System
Post is an upright single surface-mounted design. Submit shop drawing for steel post, steel plate, cap, and mounting brackets. Provide five copies.

B.3 Quality Assurance
The producer shall pre-assemble bracket assemblies in the shop to the greatest extent possible to minimize field assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinated installation. Take care not to damage the paint or finish on the bracket assemblies. If any part of the paint/coating on the post, plates and caps is damaged during shipment, storage or installation, fully repair the finish.

B.4 Products
Unless otherwise specified herein, all materials for this work shall meet the requirements of WisDOT Standard Specifications. All materials for this work shall be new stock, free from defects impairing strength, durability, and appearance.

B.5.a Interpretive Panel Support
Furnish and install upright single 3" x 3" a single surface-mounted self-supporting post according to the approved detail. Aluminum base plate/backer pane for holding the sign shall be oriented at 30 degrees from horizontal and be 3/16 inches thick. Post shall include mounting holes for "L" bracket every 3" from top of post and will have pre-drilled holes for ease of interpretive panel mounting. Pre-drilled hole locations to be coordinated with St. Croix County and the engineer. The frameless backer panel will be ready for interpretive panel installation with threaded studs that will be installed on the back side of the interpretive panel. Those studs will install through a mounting plate and screw into the threaded insert. The interpretive panel will be mounted with a blind mount or a through-bolt.

Post will have a standard surface mount style. Post length to be long enough to have interpretive panel at a height compliant with ADA design.

B.6.b Mounting Hardware
Provide stainless steel mounting hardware unless recommended otherwise by the manufacturer. Use the types and sizes of hardware indicated by the manufacturer's specifications and as needed for a complete and secure installation. Mounting system shall be secure without gaps unless otherwise specified in the plans and specification. Mounting system shall include an anti-theft device.

B.6.c Post Base
Construct cast-in-place concrete post base according to T standard spec 501, 636 and 654.

B.6.d Sign Concrete Pad
Cast in place 7-inches deep of concrete sidewalk pads according to standard spec 602.

C Construction
The sign base and surrounding concrete pad will be field-located by the engineer. Contractor must anticipate minor adjustment in the interpretive panel location in the field. Location must be suitable for viewing of interpretive sign from the trail and located so that the support bracket provides sufficient height for viewing, based on applicable standards.

C.1 Installation
Protect work area from soil erosion and runoff per erosion control plan sheets.

Install sign post according to manufacturer's specifications.

Remove any loose rock and/or solid rock to provide a minimum of 48" below existing grade.

Maximum depth of base shall not exceed 5'0" below grade.

Form and pour concrete base and concrete pad where shown on the plan. Confirm locations that require a concrete pad with engineer.

See plan set construction detail for base, concrete pad and sign post installation details.

Surface mount the interpretive panel support steel surface plate and post plumb and centered on concrete base.

Deliver interpretive panel posts to the site undamaged and ready for immediate installation. Do not store posts on site.

Set post and level interpretive panel support frame true to details. Perform corrective work as required.

Re-grade topsoil to ensure drainage away from interpretive panel base and concrete pad. Furnish and install seed, mulch and fertilizer to repair all disturbed areas in the vicinity of the sign.

Touch-up paint all finishes damaged during installation to the satisfaction of the engineer.

Clean exposed metal support system, graphic panel and painted surfaces.

D Measurement
The department will measure Interpretive Panel Support Posts and Bases by each full set interpretive panel base, pad (where needed), and post completely and satisfactorily 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.0060.01	Interpretive Panel Support Posts and Bases	EACH

Payment is full compensation for all costs involved including all labor and materials, fabrication, submittals, compaction, installation, disposal of all excess material and soil decompaction/seeding repair in the area of the installation.

31. Interpretive Panel Support Post, Delivered, Item SPV.0060.02.

A Description
This work shall consist of delivering interpretive panel support posts to St. Croix County for future installation.

B Materials
Furnish materials that are according to standard spec 654. WisDOT is not providing the artwork or interpretive panels. Do not store interpretive panel posts, frames, or mounting plates on site.

B.1 Shop Drawing and Sample Submittals
Submittals and shop drawings shall comply with standard spec 105 signed by a professional engineer in the State of Wisconsin and the following:

B.2 Sign surface-mounted Frame Support System
Post is an upright single surface-mounted design. Submit shop drawing for steel post, steel plate, cap, and mounting brackets. Provide five copies.

B.3 Quality Assurance
The producer shall pre-assemble bracket assemblies in the shop to the greatest extent possible to minimize field assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for re-assembly and coordinated installation. Take care not to damage the paint or finish on the bracket assemblies. If any part of the paint/coating on the post, plates and caps is damaged during shipment, storage or installation, fully repair the finish.

B.4 Products
Unless otherwise specified herein, all materials for this work shall meet the requirements of WisDOT Standard Specifications. All materials for this work shall be new stock, free from defects impairing strength, durability, and appearance.

B.5.a Interpretive Panel Support
Furnish and install upright single 3” x 3” a single surface-mounted self-supporting post according to the approved detail. Aluminum base plate/backer pane for holding the sign shall be oriented at 30 degrees from horizontal and be 3/16 inches thick. Post shall include mounting holes for “L” bracket every 3” from top of post and will have pre-drilled holes for ease of interpretive panel mounting. Pre-drilled hole locations to be coordinated with St. Croix County and the engineer. The frameless backer panel will be ready for interpretive panel installation with threaded studs that will be installed on the back side of the interpretive panel. Those studs will install through a mounting plate and screw into the threaded insert. The interpretive panel will be mounted with a blind mount or a through-bolt.

Post will have a standard surface mount style. Post length to be long enough to have interpretive panel at a height compliant with ADA design.

B.6.b Mounting Hardware
Provide stainless steel mounting hardware unless recommended otherwise by the manufacturer. Use the types and sizes of hardware indicated by the manufacturer's specifications and as needed for a complete and secure installation. Mounting system shall be secure without gaps unless otherwise specified in the plans and specification. Mounting system shall include an anti-theft device.

C Construction
Deliver the support posts as noted on the plan to the St Croix County Government Center, 1101 Carmichael Road, Hudson, Wisconsin 54016. Contact Ellen Denzer, Director of Community Development, at (715) 386-4673 to provide 7 days advanced notice of delivery.

Touch-up paint all finishes damaged during transport and delivery.

D Measurement
The department will measure Interpretive Panel Support Post, Delivered as each for all required signs to be delivered and acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Interpretive Panel Support Post, Delivered	EACH

Payment is full compensation for providing interpretive panel support posts and delivering to St. Croix County, and any paint touch-up or repair of the posts, acceptably completed.

32. Gate Pedestrian Railing, SPV.0060.03.

A Description
This special provision describes the design and construction of a pedestrian railing gate at a location shown on the project plans.

B Materials
Furnish Gate Pedestrian Railing that in accordance to applicable sections of the standard specifications.

Gate to be constructed in the same style, color and materials as the pedestrian safety railing described in the plan construction details and these special provisions. Design gate base, support posts and opening posts to support the load and swing of the gate. Gate to be designed to swing both directions. Gate to span the full length without any intermediate support posts. Gate to include anti-vandalism provisions and lock and key provided to owner. Gate to be constructed by same manufacturer that constructs the pedestrian safety railing. Gate to be designed according to applicable laws and standards. Manufacturer shall submit complete shop drawings indicating type, size & gauge of material used, with detailed connections to WisDOT at least 10 days prior to preconstruction meeting for review and

pre-approval. Shop drawings and structural calculations shall be stamped by a registered engineer from the State of Wisconsin.

C Construction

Install the gate to connect without a gap to the pedestrian safety railing. Provide special tools and extra connecting pins to WisDOT.

Engineer must approve the gate location before installation. Contractor must anticipate minor adjustment in the gate location in the field.

Set gate support and level gate true to details. Perform corrective work as required.

Re-grade topsoil to assure drainage away from gate post bases. Furnish and install seed, mulch and fertilizer to repair all disturbed areas in the vicinity of the gate and posts.

Touch-up paint all finishes damaged during installation to the satisfaction of the engineer.

Clean exposed metal support system, graphic panel and painted surfaces.

D Measurement

The department will measure Gate Pedestrian Railing as each unit to be designed, fabricated, delivered, installed and acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Gate Pedestrian Railing	EACH

Payment is full compensation for survey work necessary to install the gate, for adjustments to match field conditions; and for furnishing all design, fabrication, delivery and installation; for onsite installation repairs, including paint.

33. Install Light Pole, State Owned Item SPV.0060.04.

A Description

This special provision describes installing a department furnished light pole. Work under this item shall be according to standard spec 657 and this specification.

B Materials

The department will furnish the light pole. Inspect light pole before taking possession of the light pole. Once in possession of the light pole, contractor shall take full responsibility for replacement of damaged pole or pole components. Use type 6 light pole salvaged from project 8110-02-72. Furnishing new pole wiring shall be paid for under separate a bid item.

C Construction
Retrieve state owned street light poles from the St. Croix Highway shop located at the intersection of Main Street and STH 35. Coordinate with engineer for pole retrieval.

Any damage to the state-owned materials resulting from the hauling operation shall be repaired or replaced in-kind at the contractor's expense.

Install salvaged street light items according to the pertinent provisions of standard spec 657 and standard spec 659.

D Measurement
The department will measure Install Light Pole, State Owned by each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Install Light Pole, State Owned	EACH

Payment is full compensation for retrieving the light pole from the St. Croix County Highway Shop, installing the street light pole and all incidental hardware.

34. Pedestal Mounted Outdoor Outlet, Item SPV.0060.05.

A Description
This special provision describes furnishing a Pedestal Mounted Outdoor Outlet according to the plans and as hereinafter provided.

B Materials
Furnish a UL listed 125 amp 120/240V single phase unmetered pedestal mounted outdoor outlet unit with a 3R type enclosure constructed of 16 gauge galvanized steel, ASA 61 gray polyester powder coat finish with lockable hinged cover. The pedestal shall be UL listed for outdoor use and rated for direct burial installation.

The pedestal unit shall come factory wired to include: (1) 50 amp 4-wire 120/240V outlet, (1) 30 amp 3-wire 120V outlet, (1) 20 amp 120V tamper proof weather resistant GFI outlet, and breakers rated: (1) 2-pole 50 amp breaker, (1) single pole 30 amp breaker, (1) single pole 20 amp breaker.

C Construction
Install outdoor outlet unit according to manufacturer instructions. The locations of each unit shall be verified in the field prior to installation. Ensure a minimum of 30-feet is provided between units.

D Measurement
The department will measure the Pedestal Mounted Outdoor Outlet bid item as each unit complete for each service, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Pedestal Mounted Outdoor Outlet	EACH

Payment for Pedestal Mounted Outdoor Outlet is full compensation for providing materials including the post, receptacles, housing, conductors, grounding electrodes, conduit, fittings, connections, and for any materials necessary to mount the receptacles to the post.

35. Grouted Riprap Restoration, SPV.0060.06.

A Description
This special provision describes riprap restoration after disturbance at grouted riprap ditches.

B Materials
Furnish grout that is according to standard spec 602.

C Construction
Repair grout disturbed by culvert replacement. Match in to existing grouted riprap ditch. Make surface as even as possible.

D Measurement
The department will measure Grouted Riprap Restoration by each, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Grouted Riprap Restoration	EACH

Payment is full compensation for riprap repair, furnishing and applying the grout.

36. Remove and Replace Tunnel Luminaire, Item SPV.0060.07.

A Description
This special provision describes removing and replacing damaged tunnel luminaires. This work shall be in accordance with the requirements of standard spec 659, the plans, standard detail drawings, and as hereinafter provided.

B Materials
Remove and dispose of all luminaires and wiring connectors. Salvage and re-use undamaged mounting hardware, and retain all system wiring for re-use.

Replace damaged luminaires with Holophane LED A underdeck luminaire as found on the WisDOT QPL to match existing installation.

C Construction
Fully disconnect and remove the luminaire unit from the tunnel wall. Dispose of all materials and debris.

Install new luminaire according to the plans and standard spec 659.3.

D Measurement
The department will measure Remove Tunnel Luminaire by each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Remove and Replace Tunnel Luminaire	EACH

Payment is full compensation for all labor and materials needed to complete the work.

37. Remove and Reinstall Ramp Closure Gates Hardwired 40-FT, Item SPV.0060.08.

A Description
This special provision describes removing and reinstalling hardwired ramp closure gates.

B Materials
Use all ramp gate materials salvaged from the project. Furnishing a new concrete base, transformer base and steel pole will be paid for under separate bid items.

C Construction
Remove and reinstall all existing ramp gate materials, hardware, connections, and miscellaneous items, from an existing street light pole, and reinstall at a new location as shown on the plans.

General Requirements for Ramp Gate Re-Installation:
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 cabinet with power supply, flasher controller, and other components. Connect the 120 VAC to 12 VDC power supply to the circuit breaker in the breaker disconnect box. Connect the 120 VAC to 12 VDC power supply to the 10-position terminal block and connect the 12 VDC components to the terminal block.

Connect the 12 VDC terminal strip to the wiring harness through the female side of a 2-terminal polarized electrical connector. Connect male side of this connector to the flasher controller and the female side of a weatherproof polarized 4-conductor electrical connector.

Attach the male side of the 4 conductor electrical connector, mercury switch, wiring harness, and the three LED flasher units to the portion of the flasher assembly mounted on the breakaway portion of the gate arm. Adjust mercury switch so that as the gate arm is lowered to a maximum of 45 degrees from the vertical, the gate flasher assembly is energized, and the LEDs begin to flash. Ensure that when the gate arm is raised to a minimum of 15 degrees from vertical, the mercury switches the gate flasher assembly off.

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

D Measurement
The department will measure Remove and Reinstall Ramp Closure Gates Hardwired 40-FT 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.0060.08	Remove and Reinstall Ramp Closure Gates Hardwired 40-FT	EACH

Payment is full compensation for removing and reinstalling the ramp gate assembly and all incidental hardware.

38. Gate Chain Link (26 Ft. Width) Special, Item SPV.0060.09.

A Description
Perform this work according to standard spec 616, as shown on the plans and directed by the engineer.

B Materials
Furnish posts conforming to ASTM F 1043 group IA or group IC round steel pipe with a type A coating.

Furnish polymer-coating over metallic coating for gate components conforming to ASTM F 668, Class 2a over aluminum -coated steel wire. Color shall be forest green conforming to ASTM F 934. Color to be submitted to the department for approval prior to installation on chain link.

C (Vacant)

D Measurement
The department will measure Gate Chain Link (26 Ft. Width) Special by each, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Gate Chain Link (26 Ft. Width) Special	EACH

Payment is full compensation as specified in standard spec 616.5.

39. Install Wire and Vandal Guards, Item SPV.0060.10.

A Description
This special provision describes installing vandal guards on all tunnel luminaires. This work shall be in accordance with the plans, standard detail drawings, and as hereinafter provided.

B Materials
Furnish and install Holophane wire guard (GR2166) and vandal guard (GR2167) as designed for W4GLED wall pack.

C Construction
Install wire and vandal guards according to the manufacturer.

D Measurement
The department will measure wire and vandal guards by each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Install Wire and Vandal Guards	EACH

Payment is full compensation for all labor and materials needed to complete the work.

40. Traffic Control Removing Sign Covers, Item SPV.0060.11.

A Description
This special provision describes removing sign covers installed on Type II signs under a previous contract. This work shall be in accordance with the requirements of standard spec 643, the plans, and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Traffic Control Removing Sign Covers 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.0060.11	Traffic Control Removing Sign Covers	EACH

Payment is full compensation for removing sign covers and mounting hardware, disposal of sign covers and mounting hardware and for repairing any damage to the existing Type II signage.

41. Polyethylene Sheeting Mobilization, Item SPV.0075.01.

A Description
Perform this work according to standard spec 628, as shown on the plans and directed by the engineer.

B (Vacant)

C Construction
Mobilize as directed by the engineer daily or prior to rain events, to the areas of exposed subgrade along the old CTH E and STH 64 hill corridors with polyethylene sheeting installed along the corridors.

Install stockpiled sheeting over the exposed areas according to standard spec 628 or as directed. Remove sheeting from exposed areas and re-stockpile sheeting prior to grading operations along the corridor.

Damaged sheeting shall be repaired or removed and replaced per standard spec 628.

D Measurement
The department will measure Polyethylene Sheeting Mobilization Special by hours, which will include the time to uninstall and reinstall existing polyethylene sheeting as directed, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.01	Polyethylene Sheeting Mobilization Special	HOURS

Payment is full compensation as specified in standard spec 628, and includes the time to uninstall and reinstall the polyethylene sheeting, including the correct overlapping and weighing down of the polyethylene sheeting.

42. Infiltration Basin Seeding, Item SPV.0085.01

This work shall be according to the pertinent requirements of standard spec 630 and as provided here.

Supplement standard spec 630.2.1.5.1.1.1 with the following:

Seed mixtures for use in the storm water basin and ditch areas as shown in the plans shall be composed of seeds of the purity, germination, and proportions, by weight, as given in the following table for Minnesota Department of Transportation Seed Mix 33-361. Components in the table are listed by order of predominance within each functional group.

33-361 **Stormwater Northeast**

Common Name	Scientific Name	Rate (lb/ac)	Rate (kg/ha)	% of Mix (by weight)	Seeds/ Sq Ft.
Fringed brome	Bromus ciliatus	3.65	4.09	10.43%	14.75
Nodding wild rye	Elymus canadensis	2.00	2.24	5.71%	3.82
Virginia wild rye	Elymus virginicus	2.00	2.24	5.73%	3.09
Fowl bluegrass	Poa palustris	0.64	0.72	1.82%	30.40
Tall manna grass	Glyceria grandis	0.16	0.18	0.44%	4.00
Bluejoint	Calamagrostis canadensis	0.05	0.06	0.13%	4.80
	Grasses Subtotal	**8.50**	**9.53**	**24.26%**	**60.86**
Dark green bulrush	Scirpus atrovirens	0.27	0.30	0.76%	45.00
Woolgrass	Scirpus cyperinus	0.10	0.11	0.27%	60.00
Porcupine sedge	Carex hystericina	0.09	0.10	0.26%	1.00
Pointed broom sedge	Carex scoparia	0.04	0.04	0.12%	1.30
	Sedges & Rushes Subtotal	**0.50**	**0.56**	**0.12%**	**107.30**
Marsh milkweed	Asclepias incarnata	0.45	0.50	1.30%	0.80
Spotted Joe pye weed	Eutrochium maculatum	0.15	0.17	0.42%	5.10
Canada anemone	Anemone canadensis	0.10	0.11	0.29%	0.30
Flat-topped aster	Doellingeria umbellata	0.10	0.11	0.29%	2.50
Common boneset	Eupatorium perfoliatum	0.05	0.06	0.15%	3.00
Tall meadow-rue	Thalictrum dasycarpum	0.05	0.06	0.16%	0.40
Grass-leaved goldenrod	Euthamia graminifolia	0.04	0.04	0.11%	5.00
Blue monkey flower	Mimulus ringens	0.02	0.02	0.07%	20.00
Giant goldenrod	Solidago gigantea	0.02	0.02	0.06%	2.00
Eastern panicled aster	Symphyotrichum lanceolatum	0.02	0.02	0.05%	1.00
	Forbs Subtotal	**1.00**	**1.12**	**2.90%**	**40.10**
Oats	Avena sativa	25.00	28.02	71.43%	11.14
	Cover Crop Subtotal	**25.00**	**28.02**	**71.43%**	**11.14**
	TOTAL	**35.00**	**39.23**	**100.00%**	**219.40**
Purpose: Stormwater pond edges, temporarily flooded dry ponds, and temporarily flooded ditch bottoms.					

Replace standard spec 630.3.3 with the following:

Method of sowing shall be Method C.

Modify standard spec 630.3.3.3 with the following:

Sow seed according to Method C, paragraph 3.

Supplement standard spec 630.3.3.5.1 with the following:

Sow Infiltration Basin Seeding at the rate of 1 pound per 1000 square feet. Sort mix components by functional group. Refer to the Minnesota Department of Transportation Seeding Manual, 2014 Edition.

Modify standard spec 630.3.3.6 as follows:

This section applies to Infiltration Basin Seeding.

D Measurement
The department will measure Infiltration Basin Seeding by pounds.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.01	Infiltration Basin Seeding	LB

Payment is full compensation for work necessary to install the pedestrian railing, for adjustments to match field conditions; for furnishing and installing the infiltration basin seeding.

43. Pedestrian Railing, SPV.0090.01.

A Description
This special provision describes the materials, fabrication, and installation of pedestrian railing. Perform the work according to the plans, the applicable standard spec 513, as directed by the engineer, and as directed in the following special provisions. Contractor to furnish and install the complete pipe railing, including concrete ground anchorages and electrical grounds.

The contractor is responsible for communicating all applicable specifications, special provisions, standards, and requirements to all subcontractors.

B Materials
Furnish material for fabrication that is according to standard spec 513.

B.1.A Pipe
All 2-inch and 3-inch pipe for the posts and rails must be Standard Weight (ANSI B36.10, Schedule 40) per standard specifications 513 and 641. Factory galvanized pipe is not acceptable due to fabrication requirements. Threads must comply with the National Pipe Thread Standards.

1. Tensile Properties: Tensile strength, min., 58,000 psi; Yield point, min., 35,000 psi.

2. Welding Properties: If the fabricator chooses to weld the pipe to some of the fittings, the pipe used at these connections must be a grade of steel pipe which is easily welded.

B.1.B Pipe Fittings
Provide cast steel or malleable iron screw fittings for fittings for pipe no greater than 3 inches in diameter. All standard pipe fittings must be of a size and type that are compatible with the pipe members and result in a detail with a workman-like appearance. All threads must comply with the National Pipe Thread Standards

B.1.C Round Bars
Round bars: Per standard spec 513 and 641.

B.1.D Split pins
Split pins: Stainless steel per 420 ASME B18.8.2. Finish per ASTM A 380.

B.1.E Shear Studs for Concrete Anchors
Diameter: 3/8 inch. Length: 1 inch min. to 2 inches max.

B.1.F Neoprene Tubing at the Panel-to-Post Connections
Provide neoprene elastomer meeting the requirements of AASHTO M 251 with durometer hardness of 45 to 60 ±5 on the Shore “A” scale

B.1.G Concrete for Post Anchors
Provide concrete bases for post anchors (ancillary concrete) per standard spec 654 and 716.

B.2.A Fabrication Requirements – Submittals
Furnish shop detail drawings per standard specification 107. Supply the engineer with a complete list of railing components, including specifications. Include in the list the names of all suppliers and fabricators for the various components. Do not commence fabrication of the railing until the engineer has reviewed. Provide the required submittals to the engineer 14 days prior to the preconstruction meeting. Structural railing and footing/base designs shall be completed and stamped by a licensed professional engineer in the State of Wisconsin.

B.2.B Fabrication Requirements – Assembly of Rail Posts
The rail posts are intended to be assembled with screw fittings using the National Pipe Thread Standards. All joints, except as noted in the Plans, shall be tight before galvanizing. Pipe thread compound may be used for assembly. Threaded joints—for the two 3-inch pipe stubs on one side of the post that are not assembled before construction—may be re-threaded after galvanizing if necessary to assure that stubs can be easily screwed into the fittings.

B.2.C Fabrication Requirements – Galvanizing Requirements
1. Galvanize the railing panels per ASTM A123/A123-15 and ASTM D6386 after fabrication.

2. Galvanize the railing posts per ASTM A123/A123-15 and ASTM D6386 after assembly of all components. Two of the 3-inch pipe stubs for each post must be galvanized separately.

B.2.C Fabrication Requirements – Pre-Galvanized Procedure(s)
1. Calibrate dry film thickness gages according to SSPC-PA 2-Measurement of Dry Coating Thickness with Magnetic Gauges.

2. Prepare all fabricated material surfaces by abrasive blast cleaning to a minimum of SSPC-SP 6/NACE No. 3-Commercial Blast Cleaning prior to galvanizing. Remove any exposed thread compound on the railposts.

B.2.D Post Bases
Construct cast-in-place concrete post bases according to standard spec 501, 636 and 654.

B.2.E Fabrication Requirements – Galvanizing Procedure
Galvanize per ASTM A123/A123-15, ASTM D6386, and this specification. All products supplied using this specification have higher aesthetic expectations than standard galvanized products. Produce the final product to comply with its intended use as an "architectural" railing with heightened aesthetics and/or visual qualities.

1. Process all metal railing to be galvanized utilizing a "dry" kettle. Preflux the metal railing prior to the galvanizing bath using an aqueous tank of zinc chloride/ammonium chloride. Do not use a "top flux" blanket on the molten zinc bath.
2. Air cool the metal railing to ambient temperature before handling for shipment and/or storage. Do not quench the metal railing or apply any post-galvanizing treatments.
3. All lumps, projections, globules, high spots, drip lines, heavy deposits, black and bare areas, blisters, flux deposits, thin spots, dross inclusions, etc., are considered unacceptable. An unacceptable zinc coating shall be repaired with an engineer-approved quality control plan. Zinc, which will interfere with the "intended use of the product", will not be permitted.
4. Repair galvanized material that does not meet the requirements of this specification, ASTM D6386, according to an approved quality control plan procedures.

5. Store galvanized metal railing in a manner that will prevent the formation of "white-rust" or wet storage staining. "White rust" or staining of the galvanizing is not acceptable.
6. The Galvanizer shall provide the engineer with all galvanizing process-related Quality Control documents which demonstrate compliance to this specification and referenced specifications prior to shipment of the galvanized product.
7. The Galvanizer will ensure the metal railings meet a straightness tolerance of 1/8 inch in 10 feet prior to any subsequent paint applications.
8. It is the Galvanizer's responsibility to provide the engineer with advanced notification of at least 5 working days of intent to galvanize so that the engineer can perform a Quality Assurance audit.

B.2.F Fabrication Requirements – After Galvanization

After galvanizing, paint (Duplex Coat) using the applicable provisions of standard spec 517. Do not use the primer coat on galvanized surfaces.

B.2.G Fabrication Requirements – Painting Requirements

1. Perform preparation of galvanized surfaces for painting according to SSPC "Brush-off Blast Cleaning of Non-Ferrous Metals," and ASTM D6386.
2. Inspect brush-off blasted surfaces for fins or tears, or any surface that shows that the galvanize coating has been damaged. Repair damaged areas using approved procedures according to the suppliers quality control plan. Any surface of insufficient galvanize coating DFT readings shall be repaired using standard spec 517.
3. Match the color of the finish coat to Federal Standard 595 C, No. 27038 (Black) with a semigloss finish.
4. Coat all sweep blasted galvanized railing with the subsequent coat(s) within the time frame defined in ASTM D 6386, Sect. 5.4.1, or within the same 8-hour shift, maintaining manufacturer defined control and environmental conditions. The contractor’s QC personnel shall document that all parameters were followed.
5. Apply all coating material according to the Contract documents and the manufacturer's Product Data Sheet (PDS) and application guides for the material and system specified.
6. Ensure coating material(s) meet the requirements of standard spec 517. Also ensure the color of the intermediate coat presents a distinct contrast from other applied coatings.
7. Accomplish all QC inspections of all coated products with an observer with normal color vision in a "well lighted" area during each coating phase and prior to final acceptance "Well lighted" is defined as a minimum of 50 foot candles of artificial light or natural daylight. Use a light meter with readings in foot candles to verify the adequacy of the lighting.

B.3.A Handling and Shipping of Coated Metal Railing

1. Protect all completed, fabricated, and coated metal railing components during handling and shipping to prevent any damage to the coating(s). Do not move or handle coated metal railing until the paint coating has cured, but in no case sooner than recommended by the coating manufacturer.
2. Metal railing may be padded to protect it from direct contact with wood, steel, or other packaging materials that could scratch, mar, stick to, or otherwise damage the final coated railing finish. Softeners may be used in conjunction with high-density foam or other acceptable packaging materials at all points of contact.

B.3.B Storage of Coated Metal Railings

1. Store all completed coated metal railing according to MnDOT 1606 and the following:
The fabricator shall tag/piece mark all metal railing prior to final storage, and include the following identification markings, as a minimum: individual piece marks, Project number(s), fabricator and applicator job numbers. All marking(s) shall not be visible to the public when the railing is in its installed position. Include the method of identification in the fabricators QCP.

Provide the engineer with advance notification of at least five working days of intent to ship, so that the engineer can perform a QA audit prior to shipping.

B.4.A Repairs of Coated Steel Railings

Any damaged coated surfaces, identified through either Quality Control or Quality Assurance inspections as being unacceptable, either after the application of the paint or after shipping, handling, and installation, is subject to the provisions of standard spec 105.

C Construction

C.1.A Installation of Rail Posts

1. Install all railing posts plumb with the 3-inch pipe stubs aligning with the railing alignment shown in the Plans. Portions of the horizontal alignment of each of the three railing sections do not fall on tangent lines, thus, the engineer will determine the horizontal angle of the pipe stubs so that the panels can be installed without excessive binding in the connections. The posts must be accurately set as there will be very tight tolerances for installing the panels on curved alignments and varying profile grades.

2. After boring the holes for the concrete post anchors, place a 6-inch bed of sand at the bottom of the hole to provide drainage from the posts. Set the posts before placement of concrete to a depth that will provide the maximum 5-inch ground clearance of the bottom of the rail panel. Make sure that there is no concrete below the open ends of the posts.

C.1.B Suggested (or Conceptual) Procedure for Installing the Railing Panels
The following procedure is intended only as a guide for installing the railing panels. The contractor may propose another method of installation that may be more compatible with contractor's operations.

1. Place a minimum 3-inch long length of neoprene tubing over the ends of each railing pipe aligning the holes in the tubing with the holes in the pipe.

2. Insert one end of the panel into the in-place 3-inch pipe stubs on the rail post.

3. Place a loose 3-inch pipe stub over the opposite end of each railing pipe.

4. Move the panel into the railing alignment and thread the loose pipe stub into the fitting on the post and tighten so that there is at least ¾ inch of thread in the fitting and that the holes in the pipe stub align approximately with the interior holes.

5. If necessary, adjust the neoprene tubing so that there is approximately ¾ inch exposed beyond the pipe stub.

6. Install the split pins to retain the railing panel in place. An equal amount of pin should be exposed on each side of the 3" pipe.

C.1.C Ground each of the three railing sections
Install all electrical grounding according to the applicable provisions of standard spec 656 and the National Electrical Code. Clamp or braze the ground wires to the grounding device, then practicably route and attach to the nearest rail by clamping, brazing, or any other approved means that will provide a permanent positive connection.

C.1.D Coating exposed pipe surfaces
Coat exposed pipe surfaces which may have had the galvanizing removed during field installation with an approved zinc-rich coating, and paint according to standard spec 517. Prior to the application of the coating(s), clean the pipe according to the manufacturer's recommendations.

D Measurement
The department will measure Pedestrian Railing by linear feet, acceptably completed. The length of railing for payment will be the horizontal dimension in linear feet along the centerline of each continuous railing between the centers of the end posts of each railing section 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.0090.01	Pedestrian Railing	LF

Payment is full compensation for survey work necessary to install the pedestrian railing, for adjustments to match field conditions; for furnishing and installing the railing complete in place, including electrical grounds, for onsite installation repairs, including paint.

44. Fence Chain Link Coated 6-FT, SPV.0090.02.

A Description
Perform this work according to standard spec 616, as shown on the plans and directed by the engineer.

B Materials
Furnish posts conforming to ASTM F 1043 group IA or group IC round steel pipe with a type A coating.

Furnish polymer-coating over metallic coating for gate components conforming to ASTM F 668, Class 2a over aluminum -coated steel wire. Color shall be forest green conforming to ASTM F 934. Color to be submitted to the department for approval prior to installation on chain link.

C Construction
Perform work according to standard spec 616.

D Measurement
The department will measure Fence Chain Link Coated 6-FT as a linear foot 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.0090.02	Fence Chain Link Coated 6-FT	LF

Payment is full compensation for survey work necessary to install the chain link fence and gate, for adjustments to match field conditions; for furnishing; installation; for onsite installation repairs, including coating.

45. Concrete Curb and Gutter Cure and Seal Treatment, Item SPV.0090.03.

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

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

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

D Measurement
The department will measure the Concrete Curb and Gutter Cure and Seal Treatment by the linear foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.03	Concrete Curb and Gutter Cure and Seal Treatment	LF

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

46. Safety Fence Maintenance, SPV.0090.04.

A Description
This special provision describes maintaining the temporary safety fence as shown in the plans.

B Materials
If new safety fence is required, use similar material to standard spec 644.1616.S Temporary Pedestrian Safety Fence.

C Construction
Maintain safety fence and posts.

Inspect the safety fence weekly, and maintain weekly.

Install new safety fence and/or posts as required.

The contractor shall dress, to the existing grade, the disturbed area after the safety fence is no longer required, which includes topsoiling, fertilizing, and seeding the affected area.

D Measurement
The department will measure Safety Fence Maintenance by the linear foot acceptably completed. The department will measure along the base of the fence, end-to-end of the section maintained, for each time a section of fence is cleaned and 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.0090.04	Safety Fence Maintenance	LF

Payment is full compensation for Safety Fence Maintenance.

47. Cleaning, Grading and Shaping Existing Ditch, SPV.0090.05.

A Description
This work includes removing deposits of silt, sand, grass, rocks, and deleterious materials from existing ditches at locations selected by the engineer or as designated on the plans. This work also includes grading and shaping the selected areas, if necessary, to reestablish a flow line.

B (Vacant)

C Construction
Clean and shape the ditches sufficiently to allow proper hydraulic flow, with a minimum ditch gradient of 0.30%, and in a manner suitable to the engineer.

D Measurement
The department will measure Cleaning, Grading and Shaping Existing Ditch in linear feet, acceptably completed, measured along the flowline of the ditch for completed work.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.05	Cleaning, Grading and Shaping Existing Ditch	LF

Payment is for full compensation for cleaning, grading and shaping, and for removing and properly disposing of deleterious material.

The finishing items of salvaged topsoil, fertilizer, seed, mulch, and riprap (if required) will be measured and paid under their respective items.

48. Picnic Shelter, SPV.0105.03.

A Description
This special provision describes the design, fabrication and installation of a steel and timber picnic shelter.

B Materials

B.1 General Structural Design

Picnic shelter dimensions shall be as noted on the project plans construction details. Structure shall be designed and fabricated per applicable codes including local building codes. Standard load design shall be the greater value of 20 pounds per square foot live load minimum and 100 miles per hour sustained wind load, or site specific conditions and the applicable zone for seismic loads. All structure members shall be designed according to the American Institute of Steel Construction (AISC) specifications and the American Iron and Steel Institute (AISI) specifications for cold-formed members.

All fabrication welds shall be in strict accordance with the structural welding code of the American Welding Society (AWS) specifications. All structural welds shall be in compliance with the requirements of "Pre-qualified" welded joints. All welding shall conform to ASTM A-233 series E-70 – 07(2015) electrodes - low hydrogen. Field welding shall not be required.

Columns shall be structural steel tubes, sized according to engineering design. All beams shall be structural steel tube sized according to engineering. All bolts shall be A-325 or A-307 and hidden at all connections.

B.2 Roofing and Gable End Design

Roofing shall be 24 gauge 12" standing seam with hidden fasteners. The roofing steel shall be pre-cut and pre-finished with ribs running with the slope of the roof. Standing seam shall have 1-3/4" high ribs. Finish shall be a 30-year paint finish. Fascia shall be tube steel. All trim shall be 24 gauge pre-finished to match roofing. Open or welded "C" channel, "I" beams, "S" or "Z" purlins or angle iron shall not be allowed. All gable ends to have standard ornamentation as shown in construction details. Any fasteners used on the roof and fascia shall match the respective color.

B.4 Bases and Footings

Bases and/or footings shall meet requirements of standard spec 654. Provide structural engineered stamped shop drawings that meet local codes and site conditions to the engineer for review.

B.5 Frame Members and Compression Ring

Steel mill certification shall be made available upon request. All frame members shall be one piece structural steel tube with a minimum .120 (1/8") wall thickness, sized according to engineering. All frame members shall be bolted together with bolts totally concealed. All tubing for frame members shall be ASTM 500 grade B. Beam end plates shall be ASTM A36 fy=36,000 psi UNO. Bolts shall be A 307's, or 325's unless noted otherwise. "I" beams, Angle iron, "C", "Z" or "S" purlins or beams, open or closed, shall not be allowed.

B.6 Steel Powder Coating

All frame members shall be media blasted to a white finish removing all rust, scale, oil and grease. Powder coating for all frame members shall be provisionally warranted for five years with using a zinc-based primer and super durable powder coat paint. The total thickness of

primer and finish paint shall be 4.5-9.5 mils. Finish shall be a smooth uniform surface with no pits, runs or sags.

Provide samples of six related colors to St. Croix County for approval prior to ordering picnic shelter. Chosen federal colors are as follows:

- Steel standing seam roof shall be similar to Federal Color 34052.
- Remainder of steel portion shall be similar to Federal Color 30152.

B.7 Picnic Shelter Concrete Pad

A circular concrete pad 45 feet in diameter and 7 inches thick will be poured for the picnic shelter. The concrete pad shall have conduit embedded in the concrete to supply electricity and lighting to the shelter. Conduit location to be verified by engineer.

B.8 Picnic Shelter Electrical Provisions

There shall be provisions for providing an electrical control panel in the north bay rafters, six lights, and five electrical/USB combination GFCI outlets. Provide wall mounted cylinder LED downlights, 1000 Lumen, 4000K, 90 CRI with a bronze finish. Lights and outlets to be approved by engineer prior to installation.

Install electrical outlets and lights per plan and as directed by engineer. The electrical contractor is required to install conduit from the nearest pullbox to the picnic shelter, and work with concrete contractor to install conduit in picnic shelter concrete pad. An extra 50' of wire is located in the pullbox for the electrical contractor to use to tie into the picnic shelter. Field locate all electrical items with the engineer, as the exact location will be determined after placement of the picnic shelter.

B.9 Manufacturer Experience

All manufacturers shall have a minimum of 20 years of experience in the fabrication of tubular steel shade structures. Shade structure shall be the manufacturer's primary business. Manufacturer shall have fabricated similar structures to that which is specified.

B.10 Manufacturer Warranty

Manufacturer shall warranty the structure to be free from defects in material and workmanship for a period of 10 years from date of acceptance by engineer and St. Croix County. Manufacturer shall repair or replace structure components to match existing material and workmanship. Steel roof finish shall be warranted for 30 years under a separate roof manufacturer's warranty. Powder coat paint shall be warranted for 5 years after acceptance from owner against peeling, flaking and rusting.

C Construction

Shop drawings, detailed connection drawings and engineering calculations shall be stamped by a licensed professional engineer from the State of Wisconsin and shall be submitted to owner and approved by owner prior to fabrication.

Manufacturer shall supply complete layout and detail plans with installation instructions for the structure. The structure shall be erected including installation of all framing, roofing and trim installed according to the manufacturer's installation instructions. Care shall be taken to avoid damaging the structure during installation. Touch up powder coat paint with paint provided to prevent rusting. Components of the structure shall be covered and kept dry prior to erection. Final construction quality approval to be given by engineer and St. Croix County.

D Measurement
The department will measure Picnic Shelter by 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.0105.03	Picnic Shelter	LS

Payment is full compensation for survey work necessary to install picnic shelter, for adjustments to match field conditions; and for design effort, furnishing all materials, fabrication, delivery, foundation, installation, post-installation work, electrical components, lights, outlets, labor, tools, materials, equipment and incidentals necessary to complete the work. Payment for 45' diameter concrete pad will be paid for separately under pertinent bid item.

49. Electrical Service Meter Breaker Pedestal Special (MB100), Item SPV.0105.02.

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 and standard spec 656.2 and as hereinafter provided:

Amend standard spec 656.2.3, Meter Breaker Pedestal Service, by adding the following paragraphs:

(2) Furnish meter breaker pedestal with provisions for a minimum of three 30A double-pole breakers in a NEMA 3R outdoor rated enclosure. Furnish and install breakers as required to service proposed circuits.

(3) Furnish stainless steel square tubing, concrete masonry and steel reinforcement as the plans show for rigidly mounting the meter pedestal.

(4) Furnish photocell and lighting controls capable of operating the designed lighting system, installed inside a NEMA 3R outdoor rated enclosure to be attached to the meter breaker pedestal or the stainless steel tubing supports.

C Construction
According to the plans and standard spec 656.3 and as hereinafter provided:

- 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 (MB100) 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.02	Electrical Service Meter Breaker Pedestal Special (MB100)	LS

Payment is full compensation for furnishing and installing all materials; for excavation, backfill, and disposal of surplus materials.

50. Electrical Service Meter and Control Panels (CB200), Item SPV.0105.03; Electrical Service Meter and Control Panels (CB300), Item SPV.0105.04

A Description
Perform work according to the requirements of standard spec 656, the plans, standard detail drawings, and as hereinafter provided.

B Materials
B.1 Mounting
According to the plans and as hereinafter provided:

Furnish 2”x6”x8’ treated boards mounted to two 6”x6”x12’ treated posts (posts to be embedded in concrete with a 6’ minimum depth) to in order to provide a rigid support for the electrical equipment.

B.2 Meter Breaker Pedestal
According to the plans and standard spec 656.2 and as hereinafter provided:

Furnish a 320A 120/240 volt single phase meter pedestal with a NEMA rated 3-R enclosure and according to local utility standards.

B.3 Control Panels
According to the plans and as hereinafter provided:

Furnish two 200A 120/240 single phase bolt in 42 circuit load centers with 200A main breakers. Panel enclosure to be NEMA rated 3-R for outdoor use/wet locations.

Furnish one weather resistant tamper proof GFI outlet enclosed in a weather proof junction box with in use cover, to be attached to the outside of each load center.

B.4 Lighting Contactor Junction Box
According to the plans and as hereinafter provided:

Furnish NEMA 3R lighting contactor junction box of sufficient size to allow for six 2-pole 30A lighting contactors, and one hand-off-auto switch, and provisions for connection of a 120V photocell.

B.5 Miscellaneous
According to the plans and as hereinafter provided:

- Provide 2" non-metallic schedule 40 PVC for all connections between meter breaker pedestal, control panels, lighting contactor junction box and to buried pull boxes.
- Furnish a 120V photocell to be attached to the lighting contactor junction box.
- Furnish a 12"X12"X6' wiring trough for use as a raceway for all conductors.
- Provide grounding equipment as required per NEC standards.
- Furnish locator posts for communication and electrical lines

C Construction
According to the plans and as hereinafter provided:

Mount all equipment to the wooden mounting panel using stainless steel hardware. Provide adequate space to allow for future addition of telecom to the mounting panel.

Wires shall be connected to each control panel and lighting contactor junction box according to NEC standards.

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 and Control Panels (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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.03	Electrical Service Meter and Control Panels (CB200)	LS
SPV.0105.04	Electrical Service Meter and Control Panels (CB300)	LS

Payment is full compensation for furnishing and installing all materials; for excavation, backfill, and disposal of surplus materials.

51. State Welcome Sign Structure, Item SPV.0105.05.

A Description

This work shall consist of erecting a new State Welcome Sign structure; construction of its supporting base as shown on the plans; construction of the stone masonry base; sawing logs to specified shape/configuration; word inscription for logs; and painting of lettering as hereinafter provided.

B Materials

The new State Welcome Sign Structure shall be 10' wide x 11' height and 2" thick. The base material shall be clear cedar. The State Welcome sign shall be fastened to three green treated 4" x 4" back support beams as shown in the plans. The contractor shall contact the Bureau of Traffic Operations Sign Shop at (608) 246-5305 to coordinate the sign and approve the proof, prior to manufacture. The following manufacturers have the ability to create the new State Welcome Sign in clear cedar:

Creative Sign Company Inc
505 Lawrence Drive
De Pere, Wi
920-336-890
https://www.greenbaysigns.com/hdu-signs

Stratford Signs
110 Connor Ave
Stratford, WI 54484
(715) 687-4657- F
(888) 264-4459- Toll Free
https://stratfordsign.com/exterior/sandblasted/

Timber Line Sign Co., Inc.
N3211 St. Rd. 67
Lake Geneva, WI 53147
(262) 245-9898
(262) 245-9898 Fax
http://www.timberlinesign.com/ab2013_002.htm

Pine logs for the new State Welcome Sign Structure shall meet the following specifications:

The diameter of the log at a point 3 feet from the butt shall be 22.5 inches to 24.5 inches and shall not vary more than 1-inch in each 8-foot section to a diameter of 20.5 inches to 21.25 inches at the top.

The logs shall be free from any defects, which will impair their strength and durability, such as decay, red heart, splits, unsound knots, numerous knots, holes, shake or twist of grain exceeding on half of the circumference in the length of the log.

Sound knots not exceeding 4 inches in diameter will be permitted. The diameter of a knot shall be defined as being the average of its largest and smallest diameter.

A line drawn from the center of the butt to the center of the top shall not fall more than 2 inches from the center of the log at any point in its length.

The logs shall be peeled soon after cutting so that they are smooth and clean. All knots and limbs shall be neatly trimmed, care being exercised to remove as little sapwood as possible during the peeling operation. The sapwood shall not be injured by unnecessary ax cuts.

Wood preservative used shall be Pentachlorophenol and shall meet specifications indicated in standard spec 507.2.3.1.

Hardware and all other materials used for the new State Welcome Sign Structure shall meet specifications on the details as shown in the plan and standard spec 507.2.

Paint for the inlay lettering shall meet specifications of standard spec 517.2.6.1. The letter color will be yellow. Approved manufacture of paint is Mautz exterior paint, Scotch Yellow, tint 7274, or an approved equal.

C Construction

Upon completion of the new State Welcome sign structure, the contractor shall install a new OPEN FOR BUSINESS plaque in the location and method specified by the project engineer. The OPEN FOR BUSINESS plaque will be furnished by the Department The contractor shall contact the Traffic Operations Sign Shop (608) 246 5305 to obtain the new OPEN FOR BUSINESS plaque.

For the word inscriptions on logs “E”, “F” and “G”, the entire inside portion of the letter inlay will be painted flush to the level cut section area for the words Industry, Recreation, and Agriculture. All words shall be evenly spaced in cut section of log with the entire word centered in the cut section. Letter inlay shall be constructed according to specifications shown on the plan.

The new State Welcome Sign structure shall be constructed in accordance with details as shown in the plan and standard spec 507.3, at the location
shown on the plan.

D Measurement

The department will measure the State Welcome Sign Structure as a single complete lump sum for each sign, 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.0105.05	State Welcome Sign Structure	LS

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

52. Anti-Graffiti Coating, Item SPV.0165.01.

A Description

This special provision describes furnishing and applying a permanent liquid anti-graffiti coating to the exposed concrete surfaces of the structure for the purpose of preventing adherence of paint components onto the concrete surfaces.

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 as given by the manufacturer.

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

B.2 Anti-Graffiti Primer

Use one of the following anti-graffiti primers or equivalent as required by the anti-graffiti coating manufacturer.

Tri-Sheen Concrete Surfacer by TK Products
Tri-Sheen Acrylic by TK Products
*TK-1450 Urethane Anti-Graffiti Primer by TK Products
(* Natural Look)

B.3 Anti-Graffiti Coating

Use an anti-graffiti coating compatible for use on standard or painted concrete surfaces. Use one of the following products, or equal as approved by the department.

Permaclean 1495 Gloss Finish by TK Products
*Permaclean 1496 Matte Finish by TK Products
(*Only used when Matte Finish is specified on the plan.)

C Construction

C.1 Preparation of Concrete Surfaces

Clean existing concrete surfaces using a minimum 3000 psi water blast. Hold the nozzle of the water blaster approximately 6" 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

On concrete surfaces with open voids or honeycombing, provide a sack rubbed finish as given in standard spec 502.3.7.5, using mortar as indicated above.

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 in order to accept the coating material according to product requirements.

C.2 Priming of Concrete Surfaces

Apply anti-graffiti primer to all surfaces that will receive anti-graffiti coating. The color of the primer shall be as given on the plans, or the natural color of concrete if no color is specified.

C.3 Application of Anti-Graffiti Coating

Apply the anti-graffiti coating according to the manufacturer's instructions. The finish of the coating shall be gloss unless a matte finish is specified on the plans.

Apply the anti-graffiti coating to the surfaces of the structure as given on the plans. Driving/walking surfaces shall not be coated.

D Measurement

The department will measure Anti-Graffiti Coating by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Anti-Graffiti Coating	SF

Payment is full compensation for furnishing and applying the coating, for concrete surface preparation and priming.

53. Concrete Sidewalk Cure and Seal Treatment, Item SPV.0165.02.

A Description

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

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

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

D Measurement
The department will measure the Concrete Sidewalk Cure and Seal Treatment by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.02	Concrete Sidewalk Cure and Seal Treatment	SF

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

54. Infiltration Basin Soil Mix, Item SPV.0180.01.

A Description
This special provision describes preparing the infiltration basin soil mix.

B Materials
Supply a 6-inch engineered soil mix consisting of compost and topsoil. The 3-inch compost component of the engineered soil mix shall conform to Wisconsin Department of Natural Resources specification for S100 compost. The 3-inch topsoil component of the engineered soil mix shall conform to standard spec 625.2.

C Construction
The engineered soil mix shall be incorporated into the existing soil using a chisel plow or rotary device with the capability of reaching 12 inches below the graded surface. Construction and placement of the Infiltration Basin Soil Mix shall follow the construction standards outlined in the Wisconsin Department of Natural Resources Infiltration Basin practice standard.

D Measurement
The department will measure Infiltration Basin Soil Mix in area by the square yard, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Infiltration Basin Soil Mix	SY

Payment is full compensation for Infiltration Basin Soil Mix, for supplying compost material, mixing with salvaged topsoil, placing and incorporating into final graded infiltration basin surface. Salvaged topsoil required for Infiltration Basin Soil Mix is incidental to the bid item.

55. 6-Inch Fabric Formed Articulated Concrete Revetment Mat, Item SPV.0180.02.

A Description

This work shall consist of furnishing all materials, equipment, and labor and performing all operations for placing fabric formed Articulated Concrete Revetment Mat as shown on the plans and as herein provided.

B Materials

B.1 General

Materials shall conform to the department's most recent Product Acceptability List (PAL). Material shall be able to support a load of at least 80,000 lbs without damage. Material shall also be able to hold topsoil and seed to provide a vegetated visual barrier.

The concrete mix shall obtain a compressive strength of 3,500 psi at 28 days. All materials shall conform to the requirements of standard spec 501.

C Construction

Install the articulated concrete revetment mat and geotextile per the manufacturer's installation instructions. The slopes or surfaces to be protected shall be prepared and graded to such an extent that they are normally stable in the absence of erosive forces. Any fill material required to restore the slopes to original condition shall be approved by the engineer. After the engineer has approved the foundation preparation, a layer of geotextile fabric, Type R, shall be installed. Geotextile Fabric, Type R shall conform to standard specification 645. Geotextile fabric shall be overlapped a minimum of 3 feet where needed.

D Measurement

The department will measure 6-Inch Fabric Formed Articulated Concrete Revetment Mat by the area, in square yards, acceptably completed. The area for measurement will include the upper sloped surface of the mat. The portion of the mat in anchor trenches shall be considered incidental to the mat and will not be measured for payment. No allowance will be made for overlaps. Geotextile fabric, Type R is incidental to the 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.0180.02	6-Inch Fabric Formed Articulated Concrete Revetment Mat	SY

Payment is full compensation for excavation, grading, and preparation of the grade; and for furnishing and placing all materials including geotextile fabric Type R.

56. Limestone Aggregate, Item SPV.0195.01.

A Description
This special provision describes providing and placing limestone aggregate as shown on the plans and directed by the engineer.

B Materials
Limestone aggregate per standard spec 301. Limestone gradation and characteristics conforming to crushed stone or crushed gravel classification per standard spec 301.2.4.2.

Conform to the following gradation requirements:

Sieve Size	Percent Passing
½”	100%
3/8”	96-100
#4	75-90
#8	55-75
#16	35-50
#200	12-20

Prior to preconstruction meeting, provide a sample for approval.

C Construction
Per standard spec 305 and as hereinafter provided.

C.1 Placement
Limestone aggregate shall be placed to avoid running equipment on the final trail. The aggregate shall not be overworked to cause size segregation. Aggregate must be placed in one layer.

C.2 Compaction
A minimum 3 ton vibrating roller shall be used to compact the final limestone aggregate surface. The initial pass shall be made in static mode.

D Measurement
The department will measure Limestone Aggregate by the ton, acceptably placed and compacted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Limestone Aggregate	TON

Payment is full compensation for furnishing, hauling, installing and compacting.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

104.10.1 General

Replace paragraph one with the following effective with the December 2017 letting:

(1) Subsection 104.10 specifies a 2-step process for contractors to follow in submitting a cost reduction incentive (CRI) for modifying the contract in order to reduce direct construction costs computed at contract bid prices. The initial submittal is referred to as a CRI concept and the second submittal is a CRI proposal. The contractor and the department will equally share all savings generated to the contract due to a CRI as specified in 104.10.4.2(1). The department encourages the contractor to submit CRI concepts.

104.10.4.2 Payment for the CRI Work

Replace paragraph one with the following effective with the December 2017 letting:

(1) The department will pay for completed CRI work as specified for progress payments under 109.6. The department will pay for CRI's under the Cost Reduction Incentive administrative item. When all CRI costs are determined, the department will execute a contract change order that does the following:

1. Adjusts the contract time, interim completion dates, or both.
2. Pays the contractor for the unpaid balance of the CRI work.
3. Pays the contractor 50 percent of the net savings resulting from the CRI, calculated as follows:

NS = CW - CRW - CC - DC

Where:

NS = Net Savings

CW = The cost of the work required by the original contract that is revised by the CRI. CW is computed at contract bid prices if applicable.[1]

CRW = The cost of the revised work, computed at contract bid prices if applicable.[1]

CC = The contractor's cost of developing the CRI proposal.

DC = The department's cost for investigating, evaluating, and implementing the CRI proposal.

[1] The department may adjust contract bid prices that, in the engineer's judgement, do not represent the fair value of the work deleted or proposed.

108.11 Liquidated Damages

Replace paragraphs two and three with the following effective with the December 2017 letting:

(2) This deducted sum is not a penalty but is a fixed, agreed, liquidated damage due the department from the contractor for the added cost of engineering and supervision resulting from the contractor's failure to complete the work within the contract time.

(3) Unless enhanced in the special provisions, the department will assess the following daily liquidated damages

LIQUIDATED DAMAGES

ORIGINAL CONTRACT AMOUNT		DAILY CHARGE	
FROM MORE THAN	TO AND INCLUDING	CALENDAR DAY	WORKING DAY
$0	$250,000	$850	$1700
$250,000	$500,000	$815	$1630
$500,000	$1,000,000	$1250	$2500
$1,000,000	$2,000,000	$1540	$3080
$2,000,000	___	$2070	$4140

203.3.2.2 Removal Operations

Replace the entire text with the following effective with the December 2017 letting:

203.3.2.2.1 General

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

(2) If extending or incorporating existing culverts and bridges in the new work, remove only those parts of the existing structure as necessary to provide a proper connection to the new work. Saw, chip, or trim the connecting edges to the required lines and grades without weakening or damaging the remaining part of the structure. During concrete removal, do not damage reinforcing bars left in place as dowels or ties incorporated into the new work.

(3) Remove pipe culverts designated for salvage in a way that prevents damage to the culverts.

(4) Dismantle steel structures or parts of steel structures designated for salvage in a way that avoids damage to the members. If the contract specifies removing the structure in a way that leaves it in a condition suitable for re-erection, matchmark members with durable white paint before dismantling. Mark pins, bolts, nuts, loose plates, etc., similarly to indicate their proper location. Paint pins, bolts, pinholes, and machined surfaces with a department-approved rust preventative. Securely wire loose parts to adjacent members, or label and pack them in boxes.

(5) Remove timber structures or parts of timber structures designated for salvage in a way that prevents damage to the members.

(6) If the engineer approves, the contractor may temporarily use materials designated for salvage in falsework used to construct new work. Do not damage or reduce the value of those materials through temporary use.

203.3.2.2.2 Deck Removal

(1) Protect the work as specified in 107.14 during deck removal. Minimize debris falling onto water surfaces and wetlands as the contract specifies in 107.18 or in the special provisions. Also, minimize debris falling on the ground and roadway.

(2) Do not damage existing bar steel reinforcement, girders, or other components that will be incorporated in new work. Remove decks on prestressed concrete girders using a hydraulic shear or other engineer-approved equipment. Thoroughly clean, realign, and retie reinforcement as necessary.

(3) After deck removal is complete, notify the engineer to request a damage survey. Point out damage to the engineer. Allow one business day for the engineer to complete the damage survey. If damage is identified, the department will determine if repairs or girder restoration will be allowed.

(4) If the department allows girder restoration, have a professional engineer registered in the State of Wisconsin analyze the effect of the damage to the bridge, make recommendations, and prepare signed and sealed computations and structural details required to restore girders to their previous structural capacity. Submit the restoration proposal, including analysis and structural details, to the department and design engineer of record. The department will accept or reject the restoration proposal within 3 business days. Do not begin restoration work until the department allows in writing.

(5) The engineer will not extend contract time to assess or remediate contractor caused damage.

203.5.1 General

Replace paragraph two with the following effective with the December 2017 letting:

(2) Payment is full compensation for breaking down and removing; costs associated with contractor-caused damage; required salvaging, storing, and disposing of materials; and, unless the contract specifies granular backfill, for backfilling.

415.2.3 Expansion Joint Filler

Replace paragraph one with the following effective with the December 2017 letting:

(1) Furnish expansion joint filler conforming to AASHTO M153, AASHTO M213, or ASTM D8139 in lengths equal to the pavement lane width and of the thickness and height the plans show. Where dowel bars are required, use filler with factory-punched holes at the dowel bar locations and with a diameter not greater than 1/8 inch larger than the nominal dowel bar diameter.

415.3.20 Filling Joints

Replace paragraph two with the following effective with the December 2017 letting:

(2) Clean joints of laitance, curing compound, and other contaminants before filling. Saw construction joints at least 3/4 inches deep before filling. Sawing is not required for tooled joints in curb and gutter. Sandblast or waterblast exposed joint faces using multiple passes as required to clean joints surfaces of material that might prevent bonding. Blow clean and dry with oil-free compressed air immediately before filling.

415.5.1 General

Replace paragraph six with the following effective with the December 2017 letting:

(6) Payment for Concrete Pavement Joint Filling is full compensation for filling concrete pavement joints; filling adjacent curb and gutter joints; and for sawing.

440.3.4.2 Contractor Testing

Replace paragraph two with the following effective with the December 2017 letting:

(2) Coordinate with the engineer at least 24 hours before making profile runs for acceptance unless the engineer approves otherwise. The department may require testing to accommodate staged construction or if corrective action is required.

455.5.3 Tack Coat

Replace paragraph two with the following effective with the December 2017 letting:

(2) The department will adjust pay for Tack Coat, under the Nonconforming Tack Coat administrative item, for nonconforming material the engineer allows to remain in place at a maximum of 75 percent of the contract unit price.

460.2.7 HMA Mixture Design

Replace paragraph one with the following effective with the December 2017 letting:

(1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to CMM 8-66.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
ESALs x 10^6 (20 yr design life)	<2.0	2 - <8	>8	___
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821) (one face/2 face, % by count)	65/___	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	43	45	45
Sand Equivalency (AASHTO T176, min)	40	40	45	50
Gyratory Compaction				
Gyrations for N_{ini}	6	7	8	8
Gyrations for N_{des}	40	75	100	65
Gyrations for N_{max}	60	115	160	160
Air Voids, $\%V_a$ ($\%G_{mm}$ N_{des})	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% G_{mm} N_{ini}	<= 91.5[1]	<= 89.0[1]	<= 89.0	___
% G_{mm} N_{max}	<= 98.0	<= 98.0	<= 98.0	___
Dust to Binder Ratio[2] (% passing 0.075/P_{be})	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[4] [5]	65 - 75[3] [5]	65 - 75[3] [5]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283)[6] [7]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.75 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	___	___	___	0.30

[1] The percent maximum density at initial compaction is only a guideline.

[2] For a gradation that passes below the boundaries of the caution zone (ref. AASHTO M323), the dust to binder ratio limits are 0.6 - 1.6.

[3] For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

[4] For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[5] For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[6] WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

[7] Run TSR at asphalt content corresponding to 3.0% air void regressed design using distilled water for testing.

460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Replace paragraph six with the following:

(6) Conduct TSR tests during mixture production according to CMM 8-36.6.14. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5000 tons of production. Perform required increment testing in the first week of production of that increment. If production TSR values are below the limit specified in CMM 8-36.6.14, notify the engineer. The engineer and contractor will jointly determine a corrective action.

502.2.7 Preformed Joint Filler

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use preformed joint filler conforming to AASHTO M153, AASHTO M213, or ASTM D8139.

502.3.7.8 Floors

Replace paragraph fourteen with the following effective with the December 2017 letting:

(14) Unless specified otherwise, transversely tine finish the floors of structures with approach pavements designed for speeds of 40 mph or greater as specified in 415.3.8.3, except make the tining 1/8 inch in depth and do not perform tining within 12 inches of gutters. The contractor may apply a broom finish, described below, instead of the artificial turf drag finish required before tining. The contractor may perform tining manually, if it obtains a finish satisfactory to the engineer. Perform tining within 20 degrees of the centerline of bearing of the substructure units on bridge decks having skew angles of 20 degrees or greater.

505.2.6 Dowel Bars and Tie Bars

Replace the entire text with the following effective with the March 2018 letting:

505.2.6.1 General

(1) Furnish bars coated in a plant certified by the Concrete Reinforcing Steel Institute. For dowel bars and straight tie bars, there is no requirement for bend tests. Ensure that the bars are the specified diameter and length the plans show.

(2) The contractor need not coat or patch sawed ends, sheared ends, cut ends, ends left bare during the coating process, or ends with damaged coating.

(3) The contractor need not repair circumferential coating damage from shipping, handling, or installation, if the following conditions are met:

1. The damaged area is 1/4 inch square or smaller.
2. The total damaged area in any one-foot length does not exceed 2 percent of the circumferential area in that length.

(4) Repair areas of damaged circumferential coating larger than 1/4 inch square. Reject bars with total damage greater than 2 percent of the bar's circumferential area.

505.2.6.2 Dowel Bars

505.2.6.2.1 General

(1) 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.

(2) Saw bars to the required length. For solid bars, the department will allow shearing if no damage occurs to the coating and shearing distortions do not exceed the following:

1. No distorted diameter is more than 0.04 inches greater than the true diameter.
2. No distortion extends more than 0.40 inches from the sheared end.

(3) Apply a surface treatment to loose dowels, or furnish manufacturer-treated bars in dowel bar baskets, capable of preventing bond between the epoxy-coated bars and the concrete. Apply field surface treatments when loading bars in the dowel bar magazine.

505.2.6.2.2 Solid Dowel Bars

(1) Furnish coated bars conforming to AASHTO M31 grade 40 or 60. Alternatively the contractor may furnish dowel bars conforming to AASHTO M227 grade 70-80. Coat with a thermosetting epoxy conforming to AASHTO M254, type B.

505.2.6.2.3 Tubular Dowel Bars

(1) Furnish welded steel tubular bars conforming to ASTM A513 fabricated from plain carbon steel with a minimum tensile yield strength of 60 ksi and sized as follows:

SOLID BAR SPECIFIED DIAMETER	MINIMUM REQUIRED OUTSIDE DIAMETER	MINIMUM BASE METAL WALL THICKNESS
1 1/4-inch	1 5/16 inches	0.120 inch
1 1/2-inch	1 5/8 inches	0.120 inch

(2) Cap bar ends to prevent intrusion of concrete or other materials. Ensure that tubing is galvanized on the exterior and interior according to ASTM A653 with a G40 zinc coating and apply 7-13 mils of epoxy to the galvanized exterior according to AASHTO M254, Type B.

505.2.6.2.4 High Performance Dowel Bars

(1) As an alternate the contractor may furnish high performance dowel bars from the department's APL.

505.2.6.3 Tie Bars

(1) Furnish coated bars conforming to AASHTO M31 grade 40 or 60. Coat tie bars as specified in 505.2.4 for coated high-strength steel reinforcement. Ensure that the tie bars are the shape the plans show.

(2) Repair, with compatible coating material, the bend location of field-straightened coated tie bars.

614.2.1 General

Add the following as paragraph ten effective with the December 2017 letting:

(10) Furnish guardrail reflectors from the department's APL.

614.3.2.1 Installing Posts

Add the following as paragraph five effective with the December 2017 letting:

(5) Provide post-mounted reflectors every 100 feet with one at the beginning and end of each run and a minimum of three reflectors per run.

614.5 Payment

Replace paragraph four with the following effective with the December 2017 letting:

(4) Payment for the Steel Thrie Beam, Steel Plate Beam Guard, Guardrail Stiffened, MGS Guardrail, Short Radius, and various transition bid items is full compensation for providing guardrail and transitions including post-mounted reflectors; for repairing damaged zinc coatings; and for excavating, backfilling, and disposing of surplus material.

641.2.9 Overhead Sign Supports

Replace paragraph three with the following effective with the December 2017 letting:

(3) Provide steel pole shafts, mast arms or trusses, and luminaire arms zinc coated according to ASTM A123. The contractor may provide either straight or tapered pole and arm shafts unless the plans specify otherwise. Provide bolts and other hardware conforming to 641.2.2.

642.2.2.1 General

Replace the entire text with the following effective with the December 2017 letting:

(1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved.

(2) Provide long distance telephone service via a land line for exclusive department use that has the following:

- Two programmable touch-tone phones, one of which is cordless. Ensure that phone operations will not interfere with other telecommunications equipment.
- Voice mail service or an answering machine.

(3) Provide high-speed internet service for exclusive department use via cable or DSL connection with a modem/router and capable of supporting cloud enabled file sharing, voice over internet protocol (VoIP), video conferencing, and web based applications. Ensure that system meets the following:

- Includes a wireless network for the field office.
- Can accommodate IPSec based VPN products.
- Has a bandwidth range as follows:

Field office with 1-5 staff:	A minimum connection speed of 5 Mbps download and 1 Mbps upload. If a cable or DSL option is not available the contractor may provide a personal hotspot using cell phone tethering or other device able to achieve the specified minimum speeds inside the field office.
Field office with 6 or more staff:	A minimum connection speed of 10 Mbps + 1/2 Mbps per user download and 5 Mbps upload.
Projects over 500 million dollars:	A minimum connection speed of 20 Mbps + 1/2 Mbps per user download and 10 Mbps upload. Coordinate network setup at the leased office with the WisDOT network team.

(4) Provide and maintain a Windows 7 and Windows 10 compliant multi-function device with copy, print, and scan capabilities that can accommodate both 8 1/2" x 11" and 11" x 17" paper. Replenish paper, toner cartridges, and other supplies before fully expended. Ensure that department staff can connect to the device either directly or through the field office wireless network.

(5) Equip with a drafting table with a drafter's stool. Except as specified in 642.2.2.4, provide 2 ergonomically correct office chairs in working condition with, at a minimum, the following:

1. Five-legged base with casters.
2. Seat adjustable from 15 to 22 inches from the floor with a seamless waterfall, rounded, front edge.
3. High backrest with no arms or adjustable arms.

643.3.1 General

Replace paragraph one with the following effective with the December 2017 letting:

(1) Provide and maintain traffic control devices located where the plans show or engineer directs to maintain a safe work zone throughout the contract duration. Relocate as required to accommodate changing work operations. When not in use, place devices away from traffic outside of paved and gravel shoulder surfaces. Where there is barrier on the shoulder, the contractor may place devices not in use on the shoulder as close as possible to the barrier and delineated with drums. Lay signs and supports flat on the grade with uprights oriented parallel to and downstream from traffic. Do not stack devices or equipment. Promptly remove temporary devices from within the project limits as follows:

- That will not be used within 14 consecutive calendar days.
- Within 5 business days of substantial completion unless the engineer allows otherwise.

645.2.2.2 Geotextile, Type SAS (Subgrade Aggregate Separation)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Furnish fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	170 lb
Minimum puncture strength	ASTM D6241	350 lb
Maximum apparent opening size	ASTM D4751	No. 70
Minimum permittivity	ASTM D4491	0.35 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.4 Geotextile, Type DF (Drainage Filtration)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Furnish fabric conforming with the physical requirements of either schedule A, schedule B, or schedule C as the contract specifies.

SCHEDULE A TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	110 lb
Minimum puncture strength	ASTM D6241	200 lb
Minimum apparent breaking elongation	ASTM D4632	30%
Maximum apparent opening size	ASTM D4751	300 µm
Minimum permittivity	ASTM D4491	0.70 s^{-1}

SCHEDULE B TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	180 lb
Minimum puncture strength	ASTM D6241	350 lb
Minimum apparent breaking elongation	ASTM D4632	30%
Maximum apparent opening size	ASTM D4751	300 µm
Minimum permittivity	ASTM D4491	1.35 s^{-1}

SCHEDULE C TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	180 lb
Minimum puncture strength	ASTM D6241	350 lb
Minimum apparent breaking elongation	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	600 µm
Minimum permittivity	ASTM D4491	1.00 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.6 Geotextile, Type R (Riprap)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	205 lb
Minimum puncture strength	ASTM D6241	400 lb
Minimum apparent breaking elongation	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.12 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.7 Geotextile, Type HR (Heavy Riprap)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Minimum grab tensile strength, lb	ASTM D4632	305 lb
Minimum puncture strength, lb	ASTM D6241	500 lb
Minimum apparent breaking elongation, %	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.40, s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.8 Geotextile, Type C (Modified SAS)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Grab tensile strength, lb	ASTM D4632	205 lb
Puncture strength, lb	ASTM D6241	350 lb
Maximum apparent opening size	ASTM D4751	No. 50
Minimum permittivity	ASTM D4491	0.12 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

646.3.1.1 General Marking

Replace paragraph one with the following effective with the December 2017 letting:

(1) Prepare the surface and apply marking as the manufacturer specifies. Provide manufacturer specifications as the engineer requests. Do not mark over a marking product with less adherence or over chipped or peeled marking. Do not remove polymer overlay materials in areas receiving pavement marking. Use only epoxy pavement marking where the contract requires marking placed on polymer overlays.

Replace paragraph five with the following effective with the December 2017 letting:

(5) After the marking can sustain exposure to traffic, re-apply clear protective surface treatment conforming to 502.2.11 where removed from structures during marking surface preparation. Seal exposed concrete including grooves for tape. Cover marking during resealing with a system that will not degrade the marking's retroreflectivity when removed. Uncover marking before opening to traffic.

701.3 Contractor Testing

Replace paragraph one with the following effective with the December 2017 letting:

(1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Also perform other tests as necessary to control production and construction processes, and additional testing enumerated in the contractor's quality control plan or that the engineer directs. Use test methods as follows:

TABLE 701-2 TESTING STANDARDS

TEST	TEST STANDARD
Washed P 200 analysis	AASHTO T11[1]
Sieve analysis of fine and coarse aggregate	AASHTO T27[1]
Aggregate moisture	AASHTO T255[1]
Sampling freshly mixed concrete	AASHTO R60
Air content of fresh concrete	AASHTO T152[2]
Air void system of fresh concrete	AASHTO Provisional Standard TP118
Concrete slump	AASHTO T119[2]
Concrete temperature	ASTM C1064
Concrete compressive strength	AASHTO T22
Making and curing concrete cylinders	AASHTO T23
Standard moist curing for concrete cylinders	AASHTO M201

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

715.2.3.1 Pavements

Add the following as paragraph six effective with the December 2017 letting:

(6) For new lab-qualified mixes, test the air void system of the proposed concrete mix conforming to AASHTO provisional standard TP 118. Include the SAM number as a part of the mix design submittal.

715.3.1.1 General

Replace paragraph one with the following effective with the December 2017 letting:

(1) Provide slump, air content, concrete temperature and compressive strength test results as specified in 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each sublot. Cast three cylinders for strength evaluation. For pavement concrete, also test the air void system conforming to AASHTO provisional standard TP118 at least once per lot and enter the SAM number in the MRS for information only.

715.3.1.3 Department Verification Testing

Replace paragraph one with the following effective with the December 2017 letting:

(1) The department will perform verification testing as specified in 701.4.2 with additional testing as required to obtain at least 1 verification test per lot for air content, slump, temperature, and compressive strength.

Errata

Make the following corrections to the standard specifications:

106.3.3.1 General

Correct errata by changing "acceptance" to "approval".

(1) For manufactured products or assemblies, the department may base approval on a product certification or require both a product certification and production plant certification.

205.3.1 General

Correct errata by replacing paragraphs three and four with the following to reflect current practice to incorporate suitable materials.

(3) Replace unsuitable material with satisfactory material. Trim and finish the roadway. Maintain the work done under 205 in a finished condition until acceptance.

305.1 Description

Correct errata to clarify that the contractor may use more than one material under a single contract.

(1) This section describes constructing a dense graded base using one or more of the following aggregates at the contractor's option:

Crushed stone	Reclaimed asphalt
Crushed gravel	Reprocessed material
Crushed concrete	Blended material

521.2 Materials

Correct errata by deleting bullet three and including aluminum coated pipe in bullet one.

(1) Furnish corrugated steel pipe and steel apron end walls as follows:

- Corrugated steel culvert pipe, steel apron endwalls, aluminum coated corrugated steel culvert pipe, and other components conforming to AASHTO M36.
- Polymer coated corrugated steel culvert pipe and pipe arch fabricated from zinc coated sheet steel conforming to AASHTO M218. Before fabrication, coat the sheets on both sides with polymer protective coating grade 250/250 according to AASHTO M246. Fabricate the pipe according to AASHTO M245.

614.3.2.2 Installing Rail

Correct errata for splice location and allow punching or drilling holes and slots.

(1) Install rail with lap splices in the direction of traffic. Ensure that the number and dimensions of holes and bolts conforms to the plan details for new splices. Place the round head of bolts on the traffic side.

(2) Cut rails to length by shearing or sawing; do not use cutting torches. Drill or punch bolt holes and slots; ensure that they are burr free. After installation, cut anchor bolts that project more than one inch from the nut to 1/2 inch from the nut; deburr the threaded end of cut bolts.

618.1 Description

Correct errata by deleting designated detours from the scope of Maintenance and Repair of Haul Roads.

(1) This section describes maintaining, repairing, and restoring all public roads, streets, drainage facilities, and other components used for hauling by contractor, subcontractor, or supplier to support work for a department contract to its pre-haul condition. Public roads and streets shall be limited to those not a part of the State Trunk Highway System and from now on called haul roads.

643.3.5.2 Cellular Communication

Correct errata by changing State Traffic Operations Center to Traffic Management Center.

(2) A minimum of 14 days before deployment, demonstrate to the department that the cellular modem is capable of communications with the Traffic Management Center. If remote communications are interrupted or temporarily unavailable, the department will notify the contractor to change messages manually. Update messages within 2 hours of receiving notification.

646.3.1.2 Liquid Marking

Correct errata by changing "epoxy overlays" to "polymer overlays".

(5) Apply liquid marking and glass beads across the line at or exceeding the following:

LIQUID MARKING	PAVEMENT TYPE	THICKNESS (mils)	BEAD APPLICATION (pounds per gallon)
Paint	all	16	8-10
Epoxy	SMA, seal coats, and polymer overlays	25	25
Epoxy	all other	20	22.5

654.5 Payment

Correct errata to clarify that contractor-provided anchor rods and associated hardware are incidental.

(2) Payment for the Bases bid items is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts, and washers; for bar steel reinforcement; and for excavating, backfilling, and disposing of surplus materials.

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:

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

ADDITIONAL SPECIAL PROVISION 9-S
Electronic Labor Data Submittal for
State Funded Only Projects

(1) Use the Workforce Utilization Report Microsoft Excel spread sheet, or other compatible spread sheet (i.e., Google Spread Sheet), to report required labor data. Details and the Excel spreadsheet are available online through the department's highway construction contract information (HCCI) site on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, submit their labor data electronically via the Excel spread sheet to the prime contractor within 14 calendar days of the end of each quarter (quarters are defined as January-March, April-June, July-September, and October-December). The prime contractor shall coordinate collection of their subcontractors' spread sheets and forward them to the Regional Labor Compliance Specialist within 21 calendar days of the end of each quarter. Every company or contractor providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected companies or contractors aware of the requirements under this special provision and arrange for them to receive an Excel spreadsheet as part of their subcontract documents.

(4) The department will reject all paper submittals of information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

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).

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

http://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

http://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

March 2017

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

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	12.000 STA	_____.____	_____.____
0004	201.0205 Grubbing	12.000 STA	_____.____	_____.____
0006	202.0105 Roadside Clearing	12.000 STA	_____.____	_____.____
0008	203.0100 Removing Small Pipe Culverts	7.000 EACH	_____.____	_____.____
0010	204.0115 Removing Asphaltic Surface Butt Joints	1,200.000 SY	_____.____	_____.____
0012	204.0120 Removing Asphaltic Surface Milling	28,810.000 SY	_____.____	_____.____
0014	204.0150 Removing Curb & Gutter	3,765.000 LF	_____.____	_____.____
0016	204.0155 Removing Concrete Sidewalk	580.000 SY	_____.____	_____.____
0018	204.0165 Removing Guardrail	3,620.000 LF	_____.____	_____.____
0020	204.0170 Removing Fence	1,457.000 LF	_____.____	_____.____
0022	204.0180 Removing Delineators and Markers	11.000 EACH	_____.____	_____.____
0024	204.0190 Removing Surface Drains	1.000 EACH	_____.____	_____.____
0026	204.0220 Removing Inlets	9.000 EACH	_____.____	_____.____
0028	204.0245 Removing Storm Sewer (size) 01. 18-Inch	315.000 LF	_____.____	_____.____
0030	204.9060.S Removing (item description) 01. Cable Guard Terminals	2.000 EACH	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	204.9060.S Removing (item description) 02. Removing Traffic Control Barricades Type III Permanent	9.000 EACH	_____.____	_____.____
0034	204.9090.S Removing (item description) 01. Cable Guard 3 Strand	365.000 LF	_____.____	_____.____
0036	204.9090.S Removing (item description) 02. Electrical Conductors From Existing Conduit	310.000 LF	_____.____	_____.____
0038	205.0100 Excavation Common	19,455.000 CY	_____.____	_____.____
0040	208.0100 Borrow	3,750.000 CY	_____.____	_____.____
0042	208.1100 Select Borrow	4,027.000 CY	_____.____	_____.____
0044	211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 8110-02-73	LS	LUMP SUM	_____.____
0046	211.0200 Prepare Foundation for Concrete Pavement (project) 01. 8110-02-73	LS	LUMP SUM	_____.____
0048	213.0100 Finishing Roadway (project) 01. 8110-02-73	1.000 EACH	_____.____	_____.____
0050	305.0110 Base Aggregate Dense 3/4-Inch	1,758.000 TON	_____.____	_____.____
0052	305.0120 Base Aggregate Dense 1 1/4-Inch	16,823.000 TON	_____.____	_____.____
0054	305.0500 Shaping Shoulders	55.000 STA	_____.____	_____.____
0056	305.0502.S Shaping Roadway	11.000 STA	_____.____	_____.____
0058	405.0200 Coloring Concrete Custom 01. Light Tan	9.000 CY	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	405.0200 Coloring Concrete Custom 02. White	8.000 CY	_____.____	_____.____
0062	405.0200 Coloring Concrete Custom 03. Dark Tan	132.000 CY	_____.____	_____.____
0064	405.0200 Coloring Concrete Custom 04. Dark Grey	8.000 CY	_____.____	_____.____
0066	415.0060 Concrete Pavement 6-Inch	142.000 SY	_____.____	_____.____
0068	415.0080 Concrete Pavement 8-Inch	105.000 SY	_____.____	_____.____
0070	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.____	_____.____
0072	416.0260 Concrete Driveway HES 6-Inch	30.000 SY	_____.____	_____.____
0074	455.0605 Tack Coat	2,074.000 GAL	_____.____	_____.____
0076	460.2000 Incentive Density HMA Pavement	4,540.000 DOL	1.00000	4,540.00
0078	460.5223 HMA Pavement 3 LT 58-28 S	2,581.000 TON	_____.____	_____.____
0080	460.5224 HMA Pavement 4 LT 58-28 S	289.000 TON	_____.____	_____.____
0082	460.5244 HMA Pavement 4 LT 58-34 S	1,732.000 TON	_____.____	_____.____
0084	460.5245 HMA Pavement 5 LT 58-34 S	3,028.000 TON	_____.____	_____.____
0086	460.6444 HMA Pavement 4 MT 58-34 H	1,158.000 TON	_____.____	_____.____
0088	460.6445 HMA Pavement 5 MT 58-34 H	2,519.000 TON	_____.____	_____.____
0090	460.7644 HMA Pavement 4 HT 58-34 V	475.000 TON	_____.____	_____.____
0092	465.0105 Asphaltic Surface	95.000 TON	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0094	465.0110 Asphaltic Surface Patching	500.000 TON	_____.____	_____.____
0096	465.0120 Asphaltic Surface Driveways and Field Entrances	116.000 TON	_____.____	_____.____
0098	465.0315 Asphaltic Flumes	112.000 SY	_____.____	_____.____
0100	504.0900 Concrete Masonry Endwalls	20.000 CY	_____.____	_____.____
0102	517.1010.S Concrete Staining (structure) 01. B-55-226	480.000 SF	_____.____	_____.____
0104	520.1015 Apron Endwalls for Culvert Pipe 15-Inch	6.000 EACH	_____.____	_____.____
0106	520.1018 Apron Endwalls for Culvert Pipe 18-Inch	4.000 EACH	_____.____	_____.____
0108	520.1024 Apron Endwalls for Culvert Pipe 24-Inch	10.000 EACH	_____.____	_____.____
0110	520.1030 Apron Endwalls for Culvert Pipe 30-Inch	2.000 EACH	_____.____	_____.____
0112	520.2024 Culvert Pipe Temporary 24-Inch	70.000 LF	_____.____	_____.____
0114	520.3412 Culvert Pipe Class III-A Non-metal 12-Inch	56.000 LF	_____.____	_____.____
0116	520.3415 Culvert Pipe Class III-A Non-metal 15-Inch	137.000 LF	_____.____	_____.____
0118	520.3418 Culvert Pipe Class III-A Non-metal 18-Inch	211.000 LF	_____.____	_____.____
0120	520.3424 Culvert Pipe Class III-A Non-metal 24-Inch	261.000 LF	_____.____	_____.____
0122	520.3430 Culvert Pipe Class III-A Non-metal 30-Inch	152.000 LF	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0124	522.0112 Culvert Pipe Reinforced Concrete Class III 12-Inch	80.000 LF	_____.____	_____.____
0126	522.0142 Culvert Pipe Reinforced Concrete Class III 42-Inch	80.000 LF	_____.____	_____.____
0128	522.0424 Culvert Pipe Reinforced Concrete Class IV 24-Inch	56.000 LF	_____.____	_____.____
0130	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	4.000 EACH	_____.____	_____.____
0132	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	2.000 EACH	_____.____	_____.____
0134	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	2.000 EACH	_____.____	_____.____
0136	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	3.000 EACH	_____.____	_____.____
0138	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	1.000 EACH	_____.____	_____.____
0140	601.0105 Concrete Curb Type A	113.000 LF	_____.____	_____.____
0142	601.0407 Concrete Curb & Gutter 18-Inch Type D	301.000 LF	_____.____	_____.____
0144	601.0411 Concrete Curb & Gutter 30-Inch Type D	897.000 LF	_____.____	_____.____
0146	601.0413 Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type G	200.000 LF	_____.____	_____.____
0148	601.0415 Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	1,939.000 LF	_____.____	_____.____
0150	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	217.000 LF	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	601.0600 Concrete Curb Pedestrian	125.000 LF	_____.____	_____.____
0154	602.0405 Concrete Sidewalk 4-Inch	4,543.000 SF	_____.____	_____.____
0156	602.0415 Concrete Sidewalk 6-Inch	1,354.000 SF	_____.____	_____.____
0158	602.0420 Concrete Sidewalk 7-Inch	7,217.000 SF	_____.____	_____.____
0160	602.0515 Curb Ramp Detectable Warning Field Natural Patina	165.000 SF	_____.____	_____.____
0162	604.0400 Slope Paving Concrete	54.000 SY	_____.____	_____.____
0164	606.0100 Riprap Light	64.000 CY	_____.____	_____.____
0166	606.0300 Riprap Heavy	82.600 CY	_____.____	_____.____
0168	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	53.000 LF	_____.____	_____.____
0170	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	399.000 LF	_____.____	_____.____
0172	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	71.000 LF	_____.____	_____.____
0174	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	21.000 LF	_____.____	_____.____
0176	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	226.000 LF	_____.____	_____.____
0178	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	41.000 LF	_____.____	_____.____
0180	611.0530 Manhole Covers Type J	1.000 EACH	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0182	611.0624 Inlet Covers Type H	9.000 EACH	_____.____	_____.____
0184	611.0666 Inlet Covers Type Z	3.000 EACH	_____.____	_____.____
0186	611.2004 Manholes 4-FT Diameter	1.000 EACH	_____.____	_____.____
0188	611.3003 Inlets 3-FT Diameter	3.000 EACH	_____.____	_____.____
0190	611.3004 Inlets 4-FT Diameter	9.000 EACH	_____.____	_____.____
0192	611.3253 Inlets 2.5x3-FT	1.000 EACH	_____.____	_____.____
0194	614.0920 Salvaged Rail	60.000 LF	_____.____	_____.____
0196	616.0700.S Fence Safety	500.000 LF	_____.____	_____.____
0198	618.0100 Maintenance And Repair of Haul Roads (project) 01. 8110-02-73	1.000 EACH	_____.____	_____.____
0200	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0202	624.0100 Water	10.000 MGAL	_____.____	_____.____
0204	625.0105 Topsoil	620.000 CY	_____.____	_____.____
0206	625.0500 Salvaged Topsoil	45,978.000 SY	_____.____	_____.____
0208	627.0200 Mulching	50,332.000 SY	_____.____	_____.____
0210	628.1104 Erosion Bales	105.000 EACH	_____.____	_____.____
0212	628.1504 Silt Fence	500.000 LF	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0214	628.1520 Silt Fence Maintenance	500.000 LF	_____.____	_____.____
0216	628.1905 Mobilizations Erosion Control	3.000 EACH	_____.____	_____.____
0218	628.1910 Mobilizations Emergency Erosion Control	3.000 EACH	_____.____	_____.____
0220	628.1920 Cleaning Sediment Basins	12.000 CY	_____.____	_____.____
0222	628.2002 Erosion Mat Class I Type A	6,999.300 SY	_____.____	_____.____
0224	628.2008 Erosion Mat Urban Class I Type B	9,753.400 SY	_____.____	_____.____
0226	628.2023 Erosion Mat Class II Type B	2,768.000 SY	_____.____	_____.____
0228	628.2037 Erosion Mat Class III Type C	82.000 SY	_____.____	_____.____
0230	628.5505 Polyethylene Sheeting	2,500.000 SY	_____.____	_____.____
0232	628.7005 Inlet Protection Type A	9.000 EACH	_____.____	_____.____
0234	628.7015 Inlet Protection Type C	2.000 EACH	_____.____	_____.____
0236	628.7020 Inlet Protection Type D	7.000 EACH	_____.____	_____.____
0238	628.7504 Temporary Ditch Checks	180.000 LF	_____.____	_____.____
0240	628.7555 Culvert Pipe Checks	119.000 EACH	_____.____	_____.____
0242	628.7560 Tracking Pads	2.000 EACH	_____.____	_____.____
0244	629.0205 Fertilizer Type A	12.700 CWT	_____.____	_____.____
0246	629.0210 Fertilizer Type B	7.100 CWT	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0248	630.0110 Seeding Mixture No. 10	22.000 LB	_____.____	_____.____
0250	630.0120 Seeding Mixture No. 20	1,373.000 LB	_____.____	_____.____
0252	630.0130 Seeding Mixture No. 30	16.000 LB	_____.____	_____.____
0254	630.0171 Seeding Mixture No. 70A	104.000 LB	_____.____	_____.____
0256	630.0180 Seeding Mixture No. 80	103.000 LB	_____.____	_____.____
0258	630.0200 Seeding Temporary	64.000 LB	_____.____	_____.____
0260	630.0300 Seeding Borrow Pit	5.000 LB	_____.____	_____.____
0262	632.0101 Trees (species) (size) (root) 01. Autumn Blaze Maple 3" B&B	11.000 EACH	_____.____	_____.____
0264	632.0101 Trees (species) (size) (root) 02. American Basswood 4" B&B	15.000 EACH	_____.____	_____.____
0266	632.0101 Trees (species) (size) (root) 03. Bur Oak 4" B&B	47.000 EACH	_____.____	_____.____
0268	632.0101 Trees (species) (size) (root) 04. Red Oak 4" B&B	42.000 EACH	_____.____	_____.____
0270	632.0101 Trees (species) (size) (root) 05. Sugar Maple 3" B&B	21.000 EACH	_____.____	_____.____
0272	632.0101 Trees (species) (size) (root) 06. White Oak 4" B&B	27.000 EACH	_____.____	_____.____
0274	632.0101 Trees (species) (size) (root) 07. White Pine 3" B&B	8.000 EACH	_____.____	_____.____
0276	632.0101 Trees (species) (size) (root) 08. Wild Black Cherry 2.5" B&B	46.000 EACH	_____.____	_____.____

Proposal ID: 20180313040 Project(s): 8110-02-73

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0278	632.0101 Trees (species) (size) (root) 09. Hawthorn 2.5" B&B	23.000 EACH	_____.____	_____.____
0280	632.0101 Trees (species) (size) (root) 10. Kentucky Coffeetree 2.5" B&B	2.000 EACH	_____.____	_____.____
0282	632.0101 Trees (species) (size) (root) 11. River Birch 2.5" B&B	40.000 EACH	_____.____	_____.____
0284	632.0101 Trees (species) (size) (root) 12. Bur Oak 12-Inch Height BR	78.000 EACH	_____.____	_____.____
0286	632.0101 Trees (species) (size) (root) 13. Eastern Cottonwood 12-Inch Height BR	18.000 EACH	_____.____	_____.____
0288	632.0101 Trees (species) (size) (root) 14. Quaking Aspen 12-Inch Height BR	36.000 EACH	_____.____	_____.____
0290	632.0101 Trees (species) (size) (root) 15. Red Oak 12-Inch Height BR	55.000 EACH	_____.____	_____.____
0292	632.0101 Trees (species) (size) (root) 16. White Pine 12-Inch Height BR	124.000 EACH	_____.____	_____.____
0294	632.0101 Trees (species) (size) (root) 17. White Spruce 12-Inch Height BR	48.000 EACH	_____.____	_____.____
0296	632.0201 Shrubs (species) (size) (root) 01. American Hazelnut #1 Cont.	61.000 EACH	_____.____	_____.____
0298	632.0201 Shrubs (species) (size) (root) 02. Arrowwood Viburnum #1 Cont.	34.000 EACH	_____.____	_____.____
0300	632.0201 Shrubs (species) (size) (root) 03. Choke Cherry #1 Cont.	81.000 EACH	_____.____	_____.____
0302	632.0201 Shrubs (species) (size) (root) 04. Dwarfbush Honeysuckle #1 Cont.	128.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0304	632.0201 Shrubs (species) (size) (root) 05. Fragrant Sumac #1 Cont.	43.000 EACH	_____.____	_____.____
0306	632.0201 Shrubs (species) (size) (root) 06. Junberry #1 Cont.	114.000 EACH	_____.____	_____.____
0308	632.0201 Shrubs (species) (size) (root) 07. Nannyberry Viburnum #1 Cont.	125.000 EACH	_____.____	_____.____
0310	632.0201 Shrubs (species) (size) (root) 08. Frost Grape #1 Cont.	115.000 EACH	_____.____	_____.____
0312	632.0201 Shrubs (species) (size) (root) 09. Prickly Gooseberry #1 Cont.	6.000 EACH	_____.____	_____.____
0314	632.0201 Shrubs (species) (size) (root) 10. Gray Dogwood #1 Cont.	135.000 EACH	_____.____	_____.____
0316	632.0201 Shrubs (species) (size) (root) 11. Red Osier Dogwood #1 Cont.	137.000 EACH	_____.____	_____.____
0318	632.9101 Landscape Planting Surveillance and Care Cycles	2.000 EACH	_____.____	_____.____
0320	633.5200 Markers Culvert End	44.000 EACH	_____.____	_____.____
0322	634.0809 Posts Tubular Steel 2x2-Inch X 9.5-FT	57.000 EACH	_____.____	_____.____
0324	634.0810 Posts Tubular Steel 2x2-Inch X 10-FT	19.000 EACH	_____.____	_____.____
0326	634.0811 Posts Tubular Steel 2x2-Inch X 11-FT	34.000 EACH	_____.____	_____.____
0328	634.0812 Posts Tubular Steel 2x2-Inch X 12-FT	11.000 EACH	_____.____	_____.____
0330	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	4.000 EACH	_____.____	_____.____
0332	634.0885 Posts Tubular Steel 2x2-Inch X 8.5-FT	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
0334	637.2210 Signs Type II Reflective H	408.790 SF	_____.____	_____.____
0336	637.2230 Signs Type II Reflective F	188.380 SF	_____.____	_____.____
0338	638.2102 Moving Signs Type II	4.000 EACH	_____.____	_____.____
0340	638.2602 Removing Signs Type II	37.000 EACH	_____.____	_____.____
0342	638.3000 Removing Small Sign Supports	38.000 EACH	_____.____	_____.____
0344	642.5201 Field Office Type C	1.000 EACH	_____.____	_____.____
0346	643.0300 Traffic Control Drums	7,700.000 DAY	_____.____	_____.____
0348	643.0420 Traffic Control Barricades Type III	1,040.000 DAY	_____.____	_____.____
0350	643.0705 Traffic Control Warning Lights Type A	1,920.000 DAY	_____.____	_____.____
0352	643.0715 Traffic Control Warning Lights Type C	720.000 DAY	_____.____	_____.____
0354	643.0900 Traffic Control Signs	4,800.000 DAY	_____.____	_____.____
0356	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0358	645.0120 Geotextile Type HR	235.000 SY	_____.____	_____.____
0360	645.0130 Geotextile Type R	40.000 SY	_____.____	_____.____
0362	646.1020 Marking Line Epoxy 4-Inch	33,971.000 LF	_____.____	_____.____
0364	646.3020 Marking Line Epoxy 8-Inch	318.000 LF	_____.____	_____.____
0366	646.5020 Marking Arrow Epoxy	23.000 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
0368	646.5220 Marking Symbol Epoxy	17.000 EACH	_____.____	_____.____
0370	646.6120 Marking Stop Line Epoxy 18-Inch	35.000 LF	_____.____	_____.____
0372	646.7020 Marking Diagonal Epoxy 6-Inch	1,406.000 LF	_____.____	_____.____
0374	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	943.000 LF	_____.____	_____.____
0376	646.8120 Marking Curb Epoxy	9.000 LF	_____.____	_____.____
0378	646.8320 Marking Parking Stall Epoxy	4,168.000 LF	_____.____	_____.____
0380	646.9000 Marking Removal Line 4-Inch	144.000 LF	_____.____	_____.____
0382	649.0105 Temporary Marking Line Paint 4-Inch	3,200.000 LF	_____.____	_____.____
0384	650.4000 Construction Staking Storm Sewer	17.000 EACH	_____.____	_____.____
0386	650.5000 Construction Staking Base	11,806.000 LF	_____.____	_____.____
0388	650.5500 Construction Staking Curb Gutter and Curb & Gutter	3,792.000 LF	_____.____	_____.____
0390	650.6000 Construction Staking Pipe Culverts	16.000 EACH	_____.____	_____.____
0392	650.7000 Construction Staking Concrete Pavement	136.000 LF	_____.____	_____.____
0394	650.8000 Construction Staking Resurfacing Reference	7,102.000 LF	_____.____	_____.____
0396	650.8500 Construction Staking Electrical Installations (project) 01. 8110-02-73	LS	LUMP SUM	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0398	650.9000 Construction Staking Curb Ramps	8.000 EACH	_____.____	_____.____
0400	650.9910 Construction Staking Supplemental Control (project) 01. 8110-02-73	LS	LUMP SUM	_____.____
0402	650.9920 Construction Staking Slope Stakes	7,538.000 LF	_____.____	_____.____
0404	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	40.000 LF	_____.____	_____.____
0406	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	3,555.000 LF	_____.____	_____.____
0408	653.0140 Pull Boxes Steel 24x42-Inch	17.000 EACH	_____.____	_____.____
0410	654.0106 Concrete Bases Type 6	10.000 EACH	_____.____	_____.____
0412	655.0610 Electrical Wire Lighting 12 AWG	1,701.000 LF	_____.____	_____.____
0414	655.0625 Electrical Wire Lighting 6 AWG	6,031.000 LF	_____.____	_____.____
0416	655.0635 Electrical Wire Lighting 2 AWG	2,852.000 LF	_____.____	_____.____
0418	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	10.000 EACH	_____.____	_____.____
0420	657.0326 Poles Type 6-Steel	1.000 EACH	_____.____	_____.____
0422	657.0327 Poles Type 6-Aluminum	6.000 EACH	_____.____	_____.____
0424	657.0714 Luminaire Arms Truss Type 4-Inch Clamp 15-FT	3.000 EACH	_____.____	_____.____
0426	657.0715 Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	6.000 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
0428	659.1120 Luminaires Utility LED B	9.000 EACH	_____.____	_____.____
0430	659.1205 Luminaires Underdeck LED A	10.000 EACH	_____.____	_____.____
0432	690.0150 Sawing Asphalt	5,593.000 LF	_____.____	_____.____
0434	690.0250 Sawing Concrete	103.000 LF	_____.____	_____.____
0436	715.0415 Incentive Strength Concrete Pavement	500.000 DOL	1.00000	500.00
0438	SPV.0060 Special 01. Interpretive Panel Support Posts and Bases	10.000 EACH	_____.____	_____.____
0440	SPV.0060 Special 02. Interpretive Panel Support Post, Delivered	2.000 EACH	_____.____	_____.____
0442	SPV.0060 Special 03. Gate Pedestrian Railing	1.000 EACH	_____.____	_____.____
0444	SPV.0060 Special 04. Install Light Pole, State Owned	3.000 EACH	_____.____	_____.____
0446	SPV.0060 Special 05. Pedestal Mounted Outdoor Outlet	4.000 EACH	_____.____	_____.____
0448	SPV.0060 Special 06. Grouted Riprap Restoration	7.000 EACH	_____.____	_____.____
0450	SPV.0060 Special 07. Remove And Replace Tunnel Luminaire	10.000 EACH	_____.____	_____.____
0452	SPV.0060 Special 08. Remove and Reinstall Ramp Closure Gates Hardwired 40-FT	1.000 EACH	_____.____	_____.____
0454	SPV.0060 Special 09. Gate Chain Link (26 Ft. Width) Special	1.000 EACH	_____.____	_____.____
0456	SPV.0060 Special 10. Install Wire And Vandal Guards	10.000 EACH	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0458	SPV.0060 Special 11. Traffic Control Removing Sign Covers	4.000 EACH	_____.____	_____.____
0460	SPV.0075 Special 01. Polyethylene Sheeting Mobilization	25.000 HRS	_____.____	_____.____
0462	SPV.0085 Special 01. Infiltration Basin Seeding	21.000 LB	_____.____	_____.____
0464	SPV.0090 Special 01. Pedestrian Railing	3,550.000 LF	_____.____	_____.____
0466	SPV.0090 Special 02. Fence Chain Link Coated 6-FT	230.000 LF	_____.____	_____.____
0468	SPV.0090 Special 03. Concrete Curb and Gutter Cure and Seal Treatment	3,792.000 LF	_____.____	_____.____
0470	SPV.0090 Special 04. Safety Fence Maintenance	800.000 LF	_____.____	_____.____
0472	SPV.0090 Special 05. Cleaning, Grading and Shaping Existing Ditch	50.000 LF	_____.____	_____.____
0474	SPV.0105 Special 02. Electrical Service Meter Breaker Pedestal Special (MB100)	LS	LUMP SUM	_____.____
0476	SPV.0105 Special 03. Electrical Service Meter and Control Panels (CB200)	LS	LUMP SUM	_____.____
0478	SPV.0105 Special 03. Picnic Shelter	LS	LUMP SUM	_____.____
0480	SPV.0105 Special 04. Electrical Service Meter and Control Panels (CB300)	LS	LUMP SUM	_____.____
0482	SPV.0105 Special 05. State Welcome Sign Structure	LS	LUMP SUM	_____.____
0484	SPV.0165 Special 01. Anti-Graffiti Coating	8,664.000 SF	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0486	SPV.0165 Special 02. Concrete Sidewalk Cure and Seal Treatment	13,114.000 SF	_____.____	_____.____
0488	SPV.0180 Special 01. Infiltration Basin Soil Mix	3,807.000 SY	_____.____	_____.____
0490	SPV.0180 Special 02. 6-Inch Fabric Formed Articulated Concrete Revetment Mat	27.000 SY	_____.____	_____.____
0492	SPV.0195 Special 01. Limestone Aggregate	387.000 TON	_____.____	_____.____
	Section: 0001		Total:	_____.____

Total Bid: _____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE