HIGHWAY WORK PROPOSAL

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

Proposal Number: 006

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Racine	2704-00-75	N/A	International Dr, V Mount Pleasant; Sth 11 To Sth 20	LOC STR

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: $270,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: June 12, 2018 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time October 15, 2019	
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:
Mill, Grade, Storm Sewer, Water System, Culvert Pipe, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Sidewalk, Signing, Signals, Lighting, Marking, Structure C-51-84

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 IDs:

2704-00-75, International Drive, STH 11 to STH 20, local street, located in Racine County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2018 Edition, as published by the department, and these special provisions.

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

100-005 (20171130)

2. Scope of Work.

The work under this contract shall consist of removals, grading, base aggregate, HMA pavement, concrete pavement, box culvert structures, storm sewer, erosion control, permanent signing, traffic control, pavement markings, fencing, restoration 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. Non-mandatory Pre-Bid Meeting.

The above noted project has a non-mandatory pre-bid meeting scheduled as follows:

Prospective bidders are invited to attend a non-mandatory pre-bid meeting on Thursday, May 17, 2018 at 9:00 AM at the Mt Pleasant Village Hall, 8811 Campus Drive, Mount Pleasant, WI 53406.

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

4. Wisconsin Inclusion Plan.

Utilization Plan and Other Inclusion Efforts

WisDOT recognizes the intentions of the Local Development Agreement to encourage inclusion for targeted businesses and workforce participants. Bidders are encouraged to make good-faith efforts to achieve these intentions within these contract provisions.

Requirement at the Time of Bid

All Bidders should submit a Wisconsin Utilization Plan at the time of bid demonstrating how s/he will achieve the inclusion objectives for targeted businesses and workforce participants. The submission should comply with the Wisconsin Utilization Plan.

The Wisconsin Utilization Plan should be submitted to the Wisconsin Department of Transportation: Attn: Beth Cannestra at dotdtsdbpd@dot.wi.gov. For questions regarding this provision please contact Michele Carter at Michele.Carter@dot.wi.gov.

A Public Infrastructure Construction Workforce Engagement Advisory Committee has been created to review trends in all bidders' Wisconsin Inclusion Plan submittals for communication and engagement purposes in the local community.

Business Inclusion Goals, Registration and Certification Requirements

WisDOT recognizes that the Local Development Agreement includes language to encourage local and disadvantaged business inclusion. As a result, the following workforce goals and resources have been established that are consistent with Foxconn's inclusion goals for their project:

Wisconsin based Business	60%
Racine County based Businesses	10%
Minority-Owned (MBE) Business Enterprises	10% Combined
Women-Owned (WBE) Enterprises	
Veteran-Owned Business Enterprises	
Directory of Wisconsin based Businesses Directory of Racine County based Businesses	Wisconsin Department of Revenue

The Wisconsin Utilization Plan is to demonstrate the Bidder's efforts to maximize inclusion of targeted businesses and/or intermediaries which are certified and recognized, to include:

Business Category/Certification	Registration Certification Type
Minority Business Enterprise (MBE)	MBE
North Central Minority Supplier Development Council	MSDC
Women-owned Business Enterprise (WBE)	WBENC
Women's Business Enterprise National Council	
Wisconsin Unified Certification DBE Program	City of Madison DOT, Dane County, Milwaukee County Links
Emerging Business Enterprise (EBE)	EBE
Small Business Enterprise (SBE)	SBE
Service Disabled Veteran and or Veteran-owned business (SDV/SVB)	SDV/SVB
Wisconsin Economic Development Corporation	WEDC

Approved List of Targeted Businesses Intermediaries	
African American Chamber of Commerce of Wisconsin	Pan-African Community Association
American Indian Chamber of Commerce of Wisconsin	The Business Council, Inc.
Greater Milwaukee Chamber of Commerce	Wisconsin Black Chamber of Commerce, Inc.
Hmong Wisconsin Chamber of Commerce	Wisconsin Chinese Chamber of Commerce
Latino Entrepreneurial Network	Wisconsin LGBT Chamber of Commerce
Milwaukee Inner-City Congregations Allied for Home (MICAH)	Wisconsin Veterans Chamber of Commerce
National Association of Minority Contractors (NAMC-WI)	

Approved List of Targeted Businesses Directories
City of Milwaukee Small Business Enterprises (SBE) Business Directory
Wisconsin Supply Chain Market Directory
Wisconsin Unified Certification Program (WIUCP) DBE Directory

Workforce Inclusion and Diversity Goals

WisDOT recognizes that the Local Development Agreement includes language to encourage local and disadvantaged business inclusion. As a result, the following workforce goals have been established that are consistent with Foxconn's inclusion goals for their project:

Wisconsin Resident Work Hours with an emphasis on Racine County Residents	70%
Minorities or People of Color* *Minorities or People of Color as defined: American Indian or Alaska Native – Asian – Black or African American – Hispanic or Latino – Native Hawaiian or Other Pacific Islander. *Federal Register/Vol. 62, No. 210*	10% Combined
Women	
Veterans	

The bidder should make every feasible effort to provide economic opportunities to workforce candidates. The submission of a Wisconsin Utilization Plan affirms the Bidder will have implemented inclusionary measures to engage workforce intermediaries which include the following:

Approved List of Workforce Intermediaries
Human Asset Development Corporation (HADC) First Choice Pre-Apprenticeship Training
Wisconsin Regional Training Partnership WRTP/BIG STEP
Racine Campus of Gateway Technical College

Post-Award

The following two actions will be requested of the Awarded Contractor:

1. **Affirmation of business inclusion plan:**

   Within five calendar days of contract award, affirm the participation of the targeted businesses who have been identified in the Wisconsin Utilization Plan. Submit separate Wisconsin Inclusion Agreement(s) for each individual business or organization being utilized. Submit to the Wisconsin Department of Transportation: Attn: Beth Cannestra at dotdtsdbpd@dot.wi.gov

2. **Monitoring of workforce inclusion plan:**

   The Awarded Contractor is required to submit weekly certified payrolls by utilizing WisDOT's Civil Rights Compliance System (CRCS) for workforce analysis purposes only.

5. Prosecution and Progress.

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

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

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

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

Be advised that there may be multiple mobilizations and/or remobilizations to complete construction operations, for example such items as: grading, paving, traffic control, signing, temporary and permanent pavement marking, finishing items and other incidental items. No additional payment will be made, by the department, for additional mobilizations.

Interim and Final Completion of Work

Supplement standard spec 108.10 with the following:

The department will not grant time extensions for the following:

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

sef-108-015 (20171004)

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

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

A Schedule of Operations

The department anticipates that the schedule for each stage shall be as follows below, unless modifications are approved in writing by the engineer.

International Drive – 2704-00-75:

Stage 1 (2018)

Complete field investigation of existing drain tile within the corridor by no later than September 1, 2018 according to article Drain Tile Exploration. Special considerations for Drain Tile Exploration are as follows:

- Communicate drain tile locations, material, elevation, and size to engineer immediately upon location. Engineer to coordinate with the designer to validate storm sewer design.
- Do not construct any ditch, or any storm sewer elements (including placing orders) until field tile exploration is complete and storm sewer design is validated.
- Drain tile exploration is for the entire project corridor from STH 11 to the North Project Limits.
- 20-Inch drain tile interface with Pond H.

Begin roadway construction north of Louis Sorenson after completion of draintile investigation. Begin roadway construction south of Louis Sorenson after the completion of draintile investigation. See work restrictions for further details. Any work that is advanced prior to acceptance of the field tile connection plan, which requires rework to address changes needed to accommodate field tile connections, will be at no additional cost to the department.

Construct Pond H to allow for Stage 2 construction to begin in early 2019.

Construct all elements of the Hoods Creek Box Culvert by no later than December 1, 2018.

Stage 2 (2019)

Construct all remaining elements of the project

Complete Louis Sorenson roadwork under the 45-day allowed closure

International Drive is to remain closed to traffic until the STH 11 (See Other Projects) intersection is completed by others.

B Work Restrictions

Right-of-way

Do not commence work in areas that are not under department or Village of Mount Pleasant ownership as outlined in the plans. It is anticipated that real estate for the project will be fully clear by July 15, 2018, with all associated site preparation and demolition work complete by August 15, 2018. Contact Steve Hoff (262) 548-6718 for detailed map of individual parcel clearance status prior to bidding.

Wetlands

Do not begin construction within wetland areas until the Section 404 permit has been approved. Verify with the engineer that the permit is approved before starting construction in affected wetland areas. Anticipated date is July 15, 2018.

Work Zone Ingress/Egress.

Provide engineer approved signage and for access into and out of the work zones at locations approved by the engineer. Ensure that proper signage is established indicating no through traffic is permitted at the North terminus of the project limits along International Drive.

During 2019 construction operations, access to the worksite from the Southern limits of the project will be through a live work zone for Construction of STH 11 as part of Construction ID 1320-23-70, STH 11, 56th Road to CTH H, and therefore may not be available. Coordinate access requests through this worksite with the other project.

Upon engineer approval of a workzone ingress/egress plan from STH 11, access to the workzone from STH 11 during 2018 construction is permitted.All additional work to safely provide access to the site, while accommodating existing traffic along STH 11 is incidental to the contract.

At the weekly traffic meetings, provide an Emergency Work Zone Access Plan and required updates, as approved by the engineer, to direct emergency responders accessing the work zone.

Locations of work zone egress or ingress for construction vehicles, other than as the plans show, is subject to approval from the engineer. All construction vehicles shall yield to all through traffic at all locations.

Prior to hauling on Louis Sorenson Road, obtain written permission from engineer and Village of Mount Pleasant as the road is currently classified as a non-haul route. Pavement restoration of Louis Sorenson due to hauling activities to be paid for under the respective bid items and are estimated from the East

Frontage Road to International Drive. Hauling to the workzone along Louis Sorenson from the East is prohibited.

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Northern Long-eared Bat (*Myotis septentrionalis*)

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

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

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

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

Fish Spawning

There shall be no instream disturbance of the following waterways, as a result of construction activity under or for this contract, from March 1 to June 15, both dates inclusive, in order to avoid adverse impacts upon the spawning of fish.

Project	Location	County	Station
2704-00-75	Hoods Creek/International Drive	Racine County	Station 106NDR+85

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR. Regardless of timeframe, culvert pipe checks for pipes at these waterways shall be removed immediately after completion of the pipe work.

Irrigation System

Do not install irrigation system prior to 2019.

C Field Tile

South of Louis Sorenson:

Refrain from any work being started between Louis Sorenson and STH 11 until field tile exploration is completed and accepted and the connection plan is approved South of Louis Sorenson.

North of Louis Sorenson:

Refrain from any work being started between Louis Sorenson and the North Project limits until field tile exploration is completed and accepted and the connection plan is approved North of Louis Sorenson.

D Enhanced Coordination

The project limits include numerous utilities that are large in size that parallel the entire length of the project limits. East and West of International Drive will be under construction with utility lines. Time extensions shall not be granted for delays incurred due to utility installation. Ensure these elements are accounted for when determining the construction schedule. Further information is provided in Article *Utilities*.

Interim Completion: Louis Sorenson Intersection (45 Days)

Complete all work required to reopen Louis Sorenson/International Drive intersection to through traffic along Louis Sorenson within 45 consecutive calendar days. Upon 12:01 AM on the 46th day of construction, the department will assess the contractor $3,000 in interim liquidated damages for each calendar day the permanent access locations remain closed to Louis Sorenson Drive traffic.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

Interim Completion: Field Tile Exploration (9/1/2018)

Complete all work required to requirements as described for special provision Drain Tile Exploration prior to 12:01 AM September 2, 2018. The department will assess the contractor $2,070 in liquidated damages for each calendar day contract work remains incomplete beyond 12:01 AM September 2, 2018. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

Interim Completion: Pond H (12/1/2018)

Complete all work required on Pond H, with an active permanent discharge in place to Hoods prior to 12:01 AM December 2, 2018. The department will assess the contractor $2,070 in liquidated damages for each calendar day contract work remains incomplete beyond 12:01 AM December 2, 2018. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

Interim Completion: Hoods Creek Box Culvert (12/1/2018)

Complete all work required to complete box culvert C-51-84, and restore Hoods Creek to its existing channel, and remove the temporary diversion channel prior to 12:01 AM December 2, 2018. The department will assess the contractor $2,070 in liquidated damages for each calendar day contract work remains incomplete beyond 12:01 AM December 2, 2018. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

Final Completion (10/15/2019)

Replace standard spec 108.11 paragraph (3) as follows:

The department will assess $5,000 in daily liquidated damages. These liquidated damages reflect the cost of engineering, supervision, and a portion of road user costs.

6. Traffic.

Staging

Perform construction operations on International Drive in stages as shown in the traffic control/construction staging plan. The construction stages are:

International Drive:

All Stages

Maintain access to current businesses along International Drive North of the current project limits.

Maintain traffic along Louis Sorenson Drive at all times with the exception of the 45-day closure as outlined in Prosecution and Progress.

7. Traffic Meetings and Traffic Control Scheduling.

Every Thursday by 9:00 AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet.

Meet with the engineer at 10:00 AM on Thursdays at the project field office to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 10:00 AM meeting.

Every Thursday at 2:00 PM, or as scheduled by the engineer, attend a weekly traffic meeting. The meeting will bring local agencies, project stakeholders, owner managers, owner engineers, contractors, document control and construction engineering personnel together to discuss traffic staging, closures and general impacts. Upon obtaining feedback from the meeting attendees, edit, delete and add information to the detailed 2-week look-ahead closure schedule, as needed. Submit the revised 2-week look-ahead to the engineer.

Obtain approval from the engineer for any mid-week changes to the closure schedule. Revise the 2-week look-ahead as required and obtain engineer approval.

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8. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of CTH H, STH 11, and IH 94, 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 Tuesday, July 3, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day;
- From noon Thursday, August 30, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day;
- From noon Wednesday, November 21, 2018 to 6:00 AM Monday, November 26, 2018 for Thanksgiving;
- From noon Sunday, December 23, 2018 to 6:00 AM Wednesday, December 26, 2018 for Christmas;
- From noon Monday, December 31, 2018 to 6:00 AM Wednesday, January 2, 2019 for New Year's Day;
- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 28, 2019 for Memorial Day;
- From noon Wednesday, July 3, 2019 to 6:00 AM Monday, July 8, 2019 for Independence Day;
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019 for Labor Day.

Holiday work restrictions do not apply to roadways or ramps already closed long term during construction as shown on the plans. New long-term closures of ramps and roadways must be coordinated with the holiday work restrictions.

9. Work Restrictions.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours. Furnish any ordinance variance issued by the municipality or required permits to the engineer in writing 3 days before performing this work.

10. Utilities.

Additional information regarding recently relocated utility facilities may be available on permits issued to the utility companies. These permits can be viewed at the Region Office during normal working hours. Contact WisDOT SE Freeways Utility Coordinator Greg Berry at (414) 750-7828 for further information.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per state statute. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

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

Contact utility companies listed in the plans prior to preparing bids to obtain current information on existing utility locations and the status of any new utility relocation work.

Utility companies will be performing utility work and adjustments within the limits during the life of the project. The contractor shall cooperate and coordinate construction activities with these companies.

There may be discontinued utility facilities within the project limits. If a conflict with a discontinued utility facility is encountered, contact the appropriate utility owner/representative to coordinate construction activities and proper removal and disposal of said facility as necessary.

Known utilities in the project area are as follows:

AT&T Wisconsin has existing underground and overhead communications facilities within the project limits in the following locations:

- An existing underground communications line beginning beyond the westerly project limits and running easterly along the northerly right of way of STH 11, crossing proposed International Drive at Station 49SDR+84, and continuing easterly to beyond the project limits. This line will remain in place without adjustment.
- An existing overhead communications line on We Energies poles beginning beyond the westerly project limits and running easterly along the northerly right of way of STH 11, crossing proposed International Drive at Station 49SDR+86, and continuing easterly to beyond the project limits. This line will remain in place without adjustment.
- An existing overhead communications line on We Energies poles beginning beyond the westerly project limits and running easterly along the existing northerly right of way of Louis Sorenson Road, crossing proposed International Drive at Station 88SDR+82, and continuing easterly to beyond the easterly project limits. Prior to and during construction, AT&T Wisconsin will relocate this line to We Energies' poles upon completion of Charter Communications' relocations described below. Allow 10 days for AT&T Wisconsin to perform relocations.
- An existing underground communications line beginning at pedestal at Station 111SDR+60, 43'LT and running northerly to beyond the project limits. This line will remain in place without adjustment. AT&T Wisconsin will relocate the pedestal at Station 111SDR+60, 43'LT during construction. Allow 3 days for AT&T Wisconsin to perform the relocation.

Contact Mark Eder (262-896-7434) of AT&T Wisconsin 7 days in advance to coordinate locations and any excavation near their facilities.

Charter Communications has existing overhead communications facilities within the project limits in the following locations:

- An existing overhead communications line on We Energies poles beginning beyond the westerly project limits and running easterly along the northerly right of way of STH 11, crossing proposed International Drive at Station 49SDR+86, and continuing easterly to beyond the project limits. This line will remain in place without adjustment.
- An existing overhead communications line on We Energies poles beginning beyond the westerly project limits and running easterly along the existing northerly right of way of Louis Sorenson Road, crossing proposed International Drive at Station 88SDR+82, and continuing easterly to beyond the project limits. Upon completion of We Energies' electric relocations, Charter Communications will relocate this line to We Energies' poles prior to and during construction. Allow 10 days for Charter Communications to perform their relocations.

Contact Steve Cramer (414-227-4045 office/ 414-688-2385 cell) of Charter Communications 7 days in advance to coordinate locations and any excavation near their facilities.

Mount Pleasant, Village of – Lighting has no existing lighting facilities within the project limits. Construct new Mount Pleasant lighting conduit, pull boxes, and light pole bases as shown in the plans.

Contact Mark Benish (262-664-7844) of Village of Mount Pleasant 7 days in advance to coordinate construction.

Mount Pleasant, Village of – Sanitary has an existing underground sewer line within the project limits beginning at a manhole at Station 111SDR+68, 19'RT and running northerly to beyond the project limits. This line will remain in place without adjustment.

The Village of Mount Pleasant will construct new sanitary sewer facilities within the project limits in the following locations:

- Beginning beyond the southerly project limits and running northerly along a line 20' east of and parallel to the proposed easterly right of way of International Drive to Station 87NDR+44, 85'RT where it will turn and run northeasterly to Station 88NDR+03, 144'RT. From there it will turn and run northerly, crossing Louis Sorenson Road at Station 30LS+36, and continue northerly to Station 30LS+36, 68'LT. From there it will turn and run easterly along a line 20' north of and parallel to the proposed northerly right of way of Louis Sorenson Drive to beyond the project limits. This sanitary sewer is anticipated to be installed after the completion of Project 2704-00-75 (International Drive)
- Prior to construction, the Village of Mount Pleasant will construct a new sanitary sewer beginning at a new manhole beyond the westerly project limits at Station 107SDR+75, 163'LT and running easterly to Station 107SDR+57, 0'LT where it will turn and run northerly along the median of International Drive and connect to an existing manhole at Station 111SDR+68, 19'RT.

Contact Anthony Beyer (414-459-3554) of Village of Mount Pleasant - Sanitary 7 days in advance to coordinate locations and any excavation near their facilities.

Racine Water Works Commission (RWWC) has an existing water main within the project limits beginning at a hydrant at Station 111SDR+67, 32'LT and running easterly to Station 111SDR+67, 16'LT, where it turns and runs northerly to beyond the project limits. This line will remain in place without adjustment. RWWC will adjust water valves on this main during construction. Allow RWWC 3 days to adjust water valves at Station 111SDR+64, 15'LT and 111SDR+70, 17'LT. Contact Chad Regalia

(414- 944-5695) of Racine Water Works Commission 14 days in advance to coordinate the adjustment of these water valves.

Prior to construction, RWWC will construct new water mains in the following locations:

- A new water main line on International Drive beginning beyond the southerly project limits and running northerly along a line approximate 6' west of and parallel to alignment SDR to Station 52SDR+87, 6'LT where it turns and runs northwesterly to Station 54SDR+70, 45'LT. From there it turns and runs northerly along a line approximate 45' west of and parallel to alignment SDR, crossing Louis Sorenson Drive at Station 28LS+08, and continuing northerly to Station 108SDR, 45'LT. From there it turns and runs northeasterly to Station 108SDR+94, 15'LT where it turns and runs northerly and ties into the existing water main at Station 111SDR+65, 15'LT.
- A new water main line along the north side of Louis Sorenson Drive beginning at Station 25LS+21, 21'LT and running easterly and ending at Station 32LS+14, 21'LT.

During construction, RWWC will install hydrants and valve boxes along this main upon completion of final grading above the main. Fourteen hydrants will be installed throughout the project limits. Eleven valve boxes will be installed throughout the project limits. Allow two days per location of RWWC to install hydrants and one day per location for RWWC to install valve boxes. Contact Chad Regalia (414-944-5695) of Racine Water Works Commissions 21 days in advance to coordinate installation of hydrants and valves boxes during construction.

Contact Chad Regalia (414-944-5695) of Racine Water Works Commissions 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Electric has existing overhead and underground electric facilities within the project limits in the following locations:

- An existing overhead electric line beginning beyond the westerly project limits and running easterly along the northerly right of way of STH 11, crossing proposed International Drive at Station 49SDR+86, and continuing easterly to beyond the project limits. This line will remain in place without adjustment.
- An existing overhead electric line beginning beyond the westerly project limits and running easterly along the existing northerly right of way of Louis Sorenson Road, crossing proposed International Drive at Station 88SDR+82, and continuing easterly to beyond the project limits. Prior to construction, We Energies will relocate portions of this overhead line beginning at an existing pole at Station 24LS+63, 33'LT and running easterly along the proposed north right of way of Louis Sorenson Road, crossing proposed International Drive at Station 89SDR+02, and continuing easterly to an existing pole at Station 34LS+74, 30'LT. The remainder of this line will remain in place without adjustment.
- An existing underground electric line beginning at a pedestal at Station 111SDR+59, 72'LT and running southeasterly to a transformer at Station 111SDR+50, 50'LT. From there it turns and runs northerly to a transformer at Station 111SDR+58, 45' LT and then continues northerly to beyond the project limits. Prior to construction, We Energies will relocate the transformers to the proposed westerly right of way of International Drive.

Contact Dan Toomey (414-944-5695) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Gas has existing gas facilities within the project limits in the following locations:

- An existing gas line beginning beyond the westerly project limits and running easterly along the existing southerly right of way of Louis Sorenson Road, crossing proposed International Drive at Station 88SDR+21, and continuing easterly to beyond the project limits. Prior to construction,

We Energies will construct a new gas line beginning at Station 25LS+41, 32'RT and running southeasterly to Station 25LS+68, 46'RT where it turns and runs easterly along a line 3' north of and parallel to the proposed southerly right of way of Louis Sorenson Road, crossing International Drive at Station 87SDR+74, and continuing easterly to Station 31LS+68, 45'RT. From there it turns and runs northeasterly and ties to the existing gas main at Station 31LS+95, 32'RT. The existing gas main will be discontinued in place between Station 25LS+41, 32'RT and Station 31LS+68, 45'RT.

- An existing gas line beginning at Station 111NDR+81, 30'RT and running northerly to beyond the northerly project limits. This line will remain in place without adjustment.

We Energies also has a discontinued gas main beginning beyond the westerly project limits and running easterly along the median of STH 11 to beyond the project limits.

Contact Dan Toomey (414-944-5695) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

11. Other Contracts.

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

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

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

2018

IH 94 N-S CTH K Cross Road Reconstruction

ID 1030-11-71, CTH K Interchange Cross Road

IH 94 N-S Frontage Road Construction Contract

ID 1030-24-77 and 1030-24-78, CTH KR to STH 11 East and West Frontage Road

ID 1030-24-70 and 1030-24-74, STH 11 Interchange East and West Frontage Road

ID 1033-02-77 and 1033-02-78, STH 11 to STH 20 East and West Frontage Road

IH 94 N-S Freeway Mainline Work Zone Prep

ID 1035-04-71, STH 142 to CTH G, Kenosha and Racine County

Reconstruction

ID 2340-00-76, STH 20 Intersection with CTH C

Roadway Rehabilitations

ID 2250-16-70, STH 20, IH 94 to CTH H

ID 3765-04-70, CTH A, East Frontage Road to CTH H

ID 3723-01-70, CTH H, CTH A to CTH KR

ID 2818-00-73, CTH H, CTH KR to STH 20

2018 -2019

IH 94 N-S Freeway Mainline Construction STH 20 to CTH G Contract:

ID 1030-11-72, CTH K Mainline and Ramps

ID 1030-11-79, STH 20 to CTH K Mainline (North)

ID 1030-11-80, STH 20 to CTH K Mainline (South)

ID 1030-25-79, CTH K to CTH G Mainline

IH 94 N-S Freeway Mainline Construction STH 142 to STH 20 Contract:

ID 1030-23-72, IH 94 N-S Freeway, CTH E Interchange Mainline/Ramps,

ID1030-23-79, IH 94 N-S Freeway, STH 142 to CTH E Mainline,

ID 1030-24-71, IH 94 N-S Freeway, STH 11 Interchange, STH 11 Eastbound and Westbound,

ID 1030-24-72, IH 94 N-S Freeway, STH 11 Interchange, Mainline and Ramps,

ID 1030-24-79, IH 94 N-S Freeway, CTH KR to STH 11, Mainline,

ID 1033-02-79, IH 94 N-S Freeway, STH 11 to STH 20, Mainline,

ID 1035-03-71, IH 94 N-S Freeway, CTH KR Interchange Crossroad,

ID 1035-03-72, IH 94 N-S Freeway, CTH KR Interchange Mainline and Ramps,

ID 1035-03-79, IH 94 N-S Freeway, CTH E to CTH KR Mainline,

2018 - 2020

IH 94 N-S Freeway Mainline construction CTH G to College Ave Contract:

ID 1035-01-79, IH 94 N-S Freeway, CTH G to 7 Mile Road

ID 1035-01-72, IH 94 N-S Freeway, 7 Mile Road Interchange, 7 Mile Road

ID 1035-01-74, IH 94 N-S Freeway, 7 Mile Road Interchange, Mainline and Ramps

ID 1035-01-82, IH 94 N-S Freeway, 7 Mile Road to Milwaukee County Line

ID 1030-20-87, IH 94 N-S Freeway, County Line to Oakwood Rd, Elm Rd Interchange

ID 1030-20-84, IH 94 N-S Freeway, Oakwood Rd to College Ave

2018-2021

Development Roads

ID 1320-23-70, STH 11, 56th Road to CTH H (2019)

ID 2704-09-70, Braun Road, East Frontage Road – CTH H (2018 - 2019)

ID 2704-00-76, Wisconn Valley Way, CTH KR to STH 11 (2019)

ID 3760-00-70, CTH H, CTH KR to STH 11 (2020)

ID 3763-00-73, CTH KR, East Frontage Road to 90th Street (2018 - 2019)

12. Railroad Insurance and Coordination - Soo Line Railroad Company (CP).

A Description

Comply with standard spec 107.17 for all work affecting Soo Line Railroad Company (CP) property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Soo Line Railroad Company d/b/a Canadian Pacific.

Notify evidence of the required coverage, and duration to Jim Krieger, Manager Public Works; Canadian Pacific Plaza, 120 South 6th Street, Suite 700, Minneapolis, MN 55402; Telephone (612) 330-4555; E-mail: jim_krieger@cpr.ca.

Also send a copy to the following: Paul Derksen, SE Region Railroad Coordinator; 141 N. W. Barstow Street, Waukesha, WI 53188; Telephone (262) 548-8770; E-mail: paul.derksen@dot.wi.gov.

Include the following information on the insurance document:

- Project ID: 2704-00-75
- Project Location: Mount Pleasant WI
- Route Name: International Drive, Racine County
- Crossing ID: n/a
- Railroad Subdivision: Waxdale Spur
- Railroad Milepost: 8.6
- Work Performed: New roadway to be constructed

A.2 Train Operation

No freight trains operate on the CP Right-of-Way.

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

Construction Contact

Jim Krieger, Manager Public Works; Canadian Pacific Plaza, 120 South 6th Street, Suite 700, Minneapolis, MN 55402; Telephone (612) 330-4555; E-mail jim_krieger@cpr.ca for consultation on railroad requirements during construction.

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

Cable Locate Contact

In addition to contacting Diggers Hotline, contact CP Call Before You Dig line at (866) 291-0741, five working days before the locate is needed. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

Soo Line (CP) will only locate railroad owned facilities located in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 Work by Railroad

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

stp-107-026 (20170615)

13. Hauling Restrictions.

Replace standard spec 107.2 with the following:

Present to the department and the local municipality, five business days before proposed hauling, a proposed haul route plan detailing haul routes that are not part of the state trunk highway system. Include the months, days of the week, time of day, number of trucks, types of trucks and maximum loads of trucks anticipated to accomplish the project work in the haul route submittal.

The department and local municipality will review the submittal and provide a letter with comments and proposed revisions to the contractor within five business days of its receipt. The local municipality is responsible for issuing approval of haul routes. If approved, the department will subsequently survey the existing condition of that haul route to establish a baseline for assessing damage that the contractor's hauling operations might cause.

At all times, conduct operations in a manner that will cause a minimum of disruption to traffic on existing roadways.

14. Environmental Protection, Aquatic Invasive Species Control.

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 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 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.

15. Erosion Control.

Add the following to standard spec 107.20:

Erosion control best management practices (BMP's) the plans show are at suggested locations. The actual locations shall be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP shall supplement information the plans show and not reproduce it. The ECIP shall identify how to implement the project's

erosion control plan. ECIP shall demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of top soil to minimize the exposure to possible erosion.

Additional devices may be needed based on sequence of operations and field conditions. A ‘staged’ ECIP may be required for this project, as new areas are disturbed. Each new ‘stage’ of the ECIP needs to be submitted to the project staff and the WDNR liaison for review as an amendment to the ECIP with a standard 14-day review period. Work should not commence in new areas until the project staff and WDNR has reviewed and concurred with the corresponding ECIP amendment.

Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaisons Kristina Betzold, (414) 263-8517, Kristina.betzold@wisconsin.gov, and Craig Webster, (262) 574-2141, craig.webster@wisconsin.gov. Do not implement the ECIP until department approval, and perform all work conforming to the approved ECIP.

Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.

Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Install perimeter silt fence protection around stockpiles within a timeframe acceptable to the engineer. If stockpiled materials will be left for more than 14 days, install temporary seed and mulch or other temporary erosion control measures the engineer orders. Show the proposed stockpile locations in the ECIP.

Re-apply topsoil on graded areas, as designated by the engineer, within a timeframe acceptable to the engineer after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as designated by the engineer, within 5 days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed and mulch.

Do not allow excavation for; structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Before each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, conforming to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection. Do not house any dewatering technique in a wetland or floodplain.

All dewatering, including treatment to remove suspended solids, not covered under bid items is incidental to the contract.

The project team may identify ‘sensitive’ areas in the field that require additional temporary stabilization to protect resources from being contaminated by sediment-laden water discharging from the work site. Any ‘release’ of sediment-laden water from the work site that enters a wetland or waterway should be reported to the WDNR liaison within 24 hours.

The contractor shall restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils shall take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized. A plan for ‘over-wintering’ the project or a specific project area should be compiled and submitted to the project staff and WDNR for review in an amendment to the ECIP.

The DOT Select Site process must be adhered to for clean fill or any other material that leaves the work site. The project staff and the WDNR liaison will review all proposed select sites and a site visit may be required. Filling of wetlands, waterways or floodplain is not allowed under the select site process, unless the site owner has proof of required local/state/federal permits. No new impermeable surfaces can be left at a select site (including gravel roads or pads), unless the site owner attains required permits. Contaminated materials leaving the site need to adhere to the Hazardous Material Management Plan.

Construction materials and debris, including fuels, oil, and other liquid substances, will not be stored in the construction area in a manner that would allow them to enter a wetland or waterbody as a result of spillage, natural runoff, or flooding. If a spill of any potential pollutant should occur, it is the responsibility of the permittee to remove such material, to minimize any contamination resulting from this spill, and to immediately notify the State Duty Officer at 1 (800) 943-0003.

Construction of structures over navigable waterways shall be completed as quickly as possible in order to minimize disruption. Construction shall minimize the removal of shoreline vegetation below the ordinary high water mark (OHWM), unless otherwise directed by the WDNR Transportation Liaison. Construction equipment shall not operate on the bed of the stream or below the OHWM, except for that which is necessary for the placement of the structure. The contractor must provide a means of separating the live flow channel of the waterway from disturbed areas (cofferdam, turbidity barrier, etc.). Any plan for diverting the flow of a navigable waterway (listed under Fish Spawning provision) needs to be submitted, reviewed and approved by the project staff and the WDNR liaison according to the article Temporary Water Diversion Culvert C-51-84.

1. If erosion mat is used along stream banks, DNR recommends that biodegradable non-netted mat be used (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. Avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.

When performing concrete or asphalt sawcutting operations, the slurry shall be squeegeed off to the shoulder gravel or shoveled into the gravel behind curbs and not allowed into storm sewers, ditches, waterways or wetlands.

16. Notice to Contractor – Personnel Identification Program.

All contractor personnel will be required to register in the program prior to performing work. Valid photo identification which includes unexpired driver's license, government issued identification cards, military identification, passport, or other identification approved by the department will be required to register. All personnel registered will be issued a hard sticker with an identification number by the department. Stickers shall be placed in a visible location on the hard hat.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6 applicable under the contract.

17. Notice to Contractor – Media Relations.

a) The contractor shall not disseminate or publicize this Agreement, information relating to this Agreement, their work responsibilities, or generally comment about the entire project without prior written consent from one of the department's designated Project Communications Leaders listed under Section (d).

b) The contractor shall refer all information requests or interview requests made by external parties, including media sources, to all of the department's designated Project Communications Leaders listed under Section (d).

c) The contractor agrees to coordinate with the department as to the form, content and timing of any public announcement of this Agreement.

d) The Project Communications Leaders for the department will be:

i. The department's Project Manager

ii. Becky Kikkert
4802 Sheboygan Avenue
Madison, WI 53705
Phone: (608) 266-3581
Email: rebecca.kikkert@dot.wi.gov

iii. Michael Pyritz
141 NW Barstow Street
P.O. Box 798
Waukesha, WI 53188
Phone: (262) 521-5373
Email: michael.pyritz@dot.wi.gov

e) Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6 applicable under the contract.

f) Notwithstanding anything to the contrary contained herein, no provision of this Agreement shall be interpreted to impede the contractor, or any individual, from reporting possible violations of state or federal law to any governmental agency or entity, or from making other disclosures under the whistleblower provisions of state or federal law. The contractor does not need the prior authorization of the department to make any such reports or disclosures and the contractor shall not be required to notify the department that such reports or disclosures have been made.

18. Notice to Contractor – Safety.

All workers shall wear OSHA and ANSI compliant safety head protection, safety glasses, safety-toe protective footwear, and safety vest at all times while within the project footprint.

The contractor and respective subcontractors shall provide a copy of their current Company Safety Plans to the department at the preconstruction meeting. All workers shall comply with the Safety Plans of their employer.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6 applicable under the contract.

19. Notice to Contractor – Airport Operating Restrictions.

The Federal Aviation Administration (FAA) has height restrictions surrounding select airports. The department is obtaining Temporary Determination of No Hazard to Air Navigation for all temporary structure (i.e. crane) erections associated with bridge and retaining wall construction for the project. These Determinations are anticipated to be received by March 22, 2018. Once received, copies of the Determinations can be obtained through the engineer.

The Determinations are anticipated to include conditions such as red obstruction lights and orange/white checkered flags on cranes, as well as lowering the cranes to the ground when not in use and during the hours between sunset and sunrise.

Notify the manager of the applicable airport at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Contact the airport owner to disseminate a Notice to Airmen (NOTAM) when cranes are in use and construction is occurring.

Include dust control provisions near airports in the Dust Control Implementation Plan.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Any height exceeding the above ground level (AGL) or above mean sea level (AMSL) in the Determinations will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

The Determinations will expire unless extended, revised or terminated by the issuing office. Contractor must request an extension of the effective period of the determination to be postmarked or delivered by the contractor at least 30 days prior to the expiration date to:

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Once the Determinations are received, for questions on extensions to the effective period of the determinations, contact the FAA office at (847) 294-7575 and reference the Aeronautical Study Number.

Any changes in coordinates and/or heights will void the Determinations. Any future construction or alteration, including increase to heights, requires separate notice to the FAA.

Determinations include temporary construction equipment such as cranes, derricks, and other equipment, which may be used during actual construction of a structure. Equipment shall not exceed the overall heights as indicated above. Contractor must request separate notice to the FAA if equipment has a height greater than the studied structure.

Contractor must copy the engineer on any correspondence with the FAA as it relates to time extensions and new/revised Determinations.

A Determination concerns the effect of temporary structures on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If drainage or pond designs need to be modified in the field, contact WisDOT Bureau of Aeronautics (Levi Eastlick, Levi.Eastlick@dot.wi.gov, 608-267-5018 or Matt Malicki, Matthew.Malicki@dot.wi.gov, (608) 267-5273, to obtain input on minimizing wildlife attractants for the modified designs.

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

The department is obtaining a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit application is available from the regional office by contacting Laci Kazan at (414) 322-1429. Do not being

any work activities in affected wetlands prior to 404 permit being obtained. See article *Prosecution and Progress* for anticipated date.

21. Public Involvement Meetings.

Participate in department-sponsored public involvement meetings as the engineer requests. Ensure that representatives of subcontractors also participate in those meetings if the engineer requests.

sef-999-040 (20160915)

22. Material and Equipment Staging.

Submit a map showing all proposed material stockpile or equipment storage locations to the engineer 14 days before either preconstruction or proposed use, whichever comes first. Identify the specific purposes for the location. Obtain written permits from the property owner, and submit two copies to the engineer before use. Do not stockpile or store materials or equipment on wetlands.

sef-999-020 (20170310)

23. Contractor Notification.

Replace standard spec 104.2.2.2(2) with the following:

If the contractor discovers the differing condition, provide a written notice, as specified in standard spec 104.3.3, of the specific differing condition before further disturbing the site and before further performing the affected work.

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice

Replace standard spec 104.3.2 and 104.3.3 with the following:

If required by standard spec 104.2, or if the contractor believes that the department’s action, the department's lack of action, or some other situation results in or necessitates a contract revision, promptly provide a written notice to the engineer. At a minimum, provide the following:

a) A written description of the nature of the issue.
b) The time and date of discovering the problem or issue.
c) If appropriate, the location of the issue.

Provide the additional information specified in standard spec 104.3.5 as early as possible to assist the engineer in the timely resolution of an identified issue. The engineer will not require, in subsequent submissions, duplication of information already provided.

sef-104-005 (20141211)

24. Available Documents.

The department will make its information available to bidding contractors. The list of documents that are available for contractors' information includes:

- Design Study Report
- Pavement Type Selection Report
- Environmental Document
- Preconstruction survey
- Traffic Management Plan

These documents are available from Steve Hoff at 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6718

Reproduction costs will be applied to all copies requested.

sef-102-005 (20170310)

25. Contractor Document Submittals.

This special provision describes minimum requirements for submitting project documents to the department. This special provision does not apply to shop drawing submittals.

Provide one electronic copy of all documents requiring department review, acceptance, or approval. Attach a completed engineer-provided transmittal sheet to each email submittal. The department will reject submittals with incomplete transmittal sheets and require re-submittal.

The department will return one reviewed, accepted, or approved original to the contractor. Additional return originals can be requested. Submit an additional original for each additional return original requested.

Submit electronic copies in Portable Document Format (PDF) to the engineer-designated folder within the department's SharePoint site, and send alerts with a link to the document via email to (an) account(s) the engineer determines. If possible, translate original documents from their native format (e.g. Word, Excel, AutoCAD, etc.) using a Portable Document Format translation routine. Scan other documents to PDF format with a minimum resolution of 600 dpi.

All costs for contractor document submittals are incidental to the contract.

sef-105-010 (20150619)

26. Geotechnical Investigation Information.

Replace standard spec 102.5(3) 2 with the following:

Available information relative to subsurface exploration, borings, soundings, water levels, elevations or profiles are available for review at the department's Regions office. Contact Steve Hoff, 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6718.

Review the available information to determine if it is of use. The use or not of the geotechnical information does not relieve performing the work conforming to the plans and specifications.

~~sef-102-010 (20170310)~~

27. CPM Progress Schedule.

Replace standard spec 108.4.4.1 with the following:

(1) Submit a CPM Progress Schedule and updates.

(2) To ensure compatibility with the Master Program Schedule, use the latest version of Primavera P6 Project Management, by Oracle Corporation, Redwood Shores, CA, to prepare the Initial CPM Progress Schedule, Monthly CPM Progress Updates and other CPM Progress Revisions requested by the engineer.

(3) Within five business days after award, the department will provide its current standard Work Breakdown Structure and activity codes to use to develop the Initial CPM Progress Schedule.

(4) Designate a Project Scheduler who will be responsible for scheduling the Work and submit a professional resume describing a minimum of three years of scheduling experience on interstate-highway reconstruction

work of similar size and complexity, including recent experience with P6. Obtain approval of the submitted resume before scheduling the work.

Replace standard spec 108.4.4.4(2) with the following:

(2) For each schedule update, submit electronic copies in an approved format and updated PDF printouts of the following:

1. Tabular sorts by:
   - Activity Identification/Early Start.
   - Total Float.
2. If applicable, an updated logic diagram as the engineer requires.
3. If augmenting the CPM schedule with a linear schedule, provide an update of the linear schedule.
4. Activities underway and as-built dates for the past month.
5. Agreement on the as-built dates with the department depicted in the Monthly CPM Progress Schedule Update. Document all disagreements. Use the as-built dates from the Monthly CPM Progress Schedule Update for the month when updating the CPM schedule.
6. Actual as-built dates for completed activities through final acceptance of the project.

sef-108-010 (20171004)

28. Dust Control Implementation Plan.

A Description

This special provision describes developing, updating, and implementing a detailed Dust Control Implementation Plan (DCIP) for all land-disturbing construction activities and associated impacts both within the project site boundaries and outside the project site boundaries. Incorporate contract bid items that this article specifies into the DCIP.

B (Vacant)

C Construction

C.1 General

Control dust on the project as specified in standard spec 107.18. Minimize dust emissions resulting from land disturbing activities. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. Control dust at all times during the contract.

Submit a DCIP to the engineer and WDNR Liaison for review at least 14 calendar days before the preconstruction conference. Coordinate with the department, if requested, to resolve DCIP related issues before the preconstruction conference. The department will either approve the DCIP or request revisions. Do not initiate land-disturbing activities without the department's approval of the DCIP.

C.2 DCIP Contents

Develop a DCIP tailored to the specific needs of the project. Consider potential impacts to businesses and residences adjacent to the job site. Describe in detail all land disturbing, dust generating activities. Identify strategies to prevent, mitigate, and collect excess dust. Establish clear lines of communication with the engineer to ensure that all dust control issues can be dealt with promptly.

Include all of the following:

2. A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job related dust. Provide:
    - Name, firm, address, and working-hours phone number.
    - Non-working-hours phone number.
    - Email address.
3. A site map locating project features, the job site boundaries, all ingress and egress points, air intakes and other dust-sensitive areas, and all public and private paved surfaces within and adjacent to the job site. Show where specific land disturbing, dust generating activities will occur and, to the extent possible, where employing various dust control or prevention strategies.
4. A matrix, or plan, for each anticipated land disturbing, dust generating activity, showing the following:
    - Preventive measures that shall be employed.
    - The applicable contact person.
    - The contractor's timetable and surveillance measures used to determine when remediation is required.
    - The specific dust control and remediation measures that shall be employed. Identify the specific contract bid items that shall be used for payment. Indicate costs and practices that are incidental to the contract.
    - Both maintenance and cleanup schedules and procedures.
    - Excess and waste materials disposal strategy.
5. A description of monitoring and resolving off-site impacts.

C.3 Updating the DCIP

Update the DCIP during the contract or as the engineer directs. Obtain the engineer's approval for all DCIP alterations. Also obtain the engineer's approval for routine DCIP adjustments for weather, job conditions, or emergencies that will have an impact on payment under the bid items listed in the approved DCIP.

C.4 Dust Control Deficiencies

Coordinate with engineer to determine deadlines for resolving dust control deficiencies. Deficiencies include actions or lack of actions resulting in excessive dust, non-compliance with the contractor's DCIP or associated special provisions, and not properly maintaining equipment.

D Measurement

The department will measure the various bid items associated with dust control as specified in the applicable measurement subsections of either the standard specs or other contract special provisions. The department will not measure work performed under a DCIP alteration unless the engineer specifically approves that alteration.

Measurement under the DCIP includes the contract bid items listed in this special provision:

623.0200	Dust Control Surface Treatment
624.0100	Water
628.7560	Tracking Pads
SPV.0075.001	Pavement Cleanup Project 2704-00-75

The department will measure work completed under other existing contract bid items if approved as a part of the DCIP. The department will consider new bid items to the contract if proposed under the DCIP. The department will not measure work required under the DCIP that is not included in contract bid items.

E Payment

All costs associated with the development and updating of the DCIP are incidental to the contract. The department will pay separately for the work required to implement the actions approved in the DCIP under the contract bid items approved as a part of the DCIP. All other costs associated with work approved under the DCIP are incidental to the contract.

sef-107-005 (20170323)

29. Partnering Meetings Monthly.

A Description

The department will implement mandatory monthly leadership partnering meetings. Unless the department and contractor agree otherwise, the contractor, and department personal shall meet monthly from project start until the contractor accepts the tentative final estimate. The contractor and department field personal may mutually agree to invite other attendees.

This meeting is intended to facilitate a cooperative team environment that defines roles and responsibilities, determines common goals and objectives, and provides a platform to build trust and accountability. Meeting topics may include:

- Issue and risk management
- Dispute resolution procedures
- Safety
- Public outreach
- Traffic management
- Cost reducing incentives
- Claim resolution
- Scheduling issues
- Quality control

All costs are incidental to the contract work.

sef-108-040 (20171004)

30. Project Site Air Quality

Because fine particulate matter levels for Racine County are typically close to $PM_{2.5}$ limits and the project is in a non-attainment area for the federal 8-hour ozone standard, contributions from construction activities can have a major impact well beyond the project limits. Take practical measures to mitigate the impact of operating construction equipment on the air quality in and around the project site.

Voluntarily establishing the staging zones for trucks waiting to load and unload is encouraged by the department. Locate staging zones where idling of diesel powered equipment will have minimal impact on abutting properties and the general public. The department will make signs available to help identify these zones. Have truckers queue up in these zones whenever it is practical. The department further encourages drivers to shut down diesel trucks as soon as it appears likely that they will be queued up for more than ten minutes. Notify employees and sub-contractors about fueling and engine idling.

Portable Concrete Crusher Plants

Portable concrete crusher plants need a NR 440 Concrete Crusher Plant Air Permit for air emissions. Please contact Wisconsin Department of Natural Resources to request additional information and permit application materials. Complete permit applications may take 3 months to process.

sef-999-039 (20160929)

31. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

The waterways at the following locations are classified as navigable waterways.

Project	Location	County	Station
2704-00-75	Northbound International over Hoods Creek	Racine County	Station 106NDR+83
2704-00-75	Southbound International over Hoods Creek	Racine County	Station 106SDR+86

stp-107-060 (20150630)

32. Maintaining Drainage.

Maintain drainage at and through worksite during construction conforming to standard spec 107.22, 204, 205 and 520.

Use existing storm sewers, existing culvert pipes, existing drainage channels, temporary culvert pipes, or temporary drainage channels to maintain existing surface and pipe drainage. Pumps may be required to drain the surface, pipe, and structure discharges during construction. Costs for furnishing, operating, and maintaining the pumps is considered incidental to the project.

Dewatering (Mechanical Pumping) for Bypass Water (sediment-free) Operations

If dewatering bypass operations are required from one pipe structure to another downstream pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce erosion from the discharge velocity that would cause release of sediment downstream.

Dewatering (Mechanical Pumping) for treatment Water (sediment-laden) Operations

If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Refer to article Erosion Control in these special provisions for additional requirements.

sef-107-016 (20170310)

33. Subletting the Contract.

Replace standard spec 108.1.1 (3) with the following:

If proposing to have a party other than a subcontractor perform work, notify the engineer and submit details of this arrangement in writing. The engineer will determine if that arrangement constitutes subcontracting. Submit copies of all other agreements between any parties regarding the performance of work under the contract with the Request to Sublet.

sef-108-035 (20171004)

34. Pay Plan Quantity.

Replace standard spec 109.1.1.2.3 with the following:

The engineer may issue a change order under 104.2 if the quantity shown in the schedule of items varies significantly from the work required in the contract or a quantity discrepancy significantly changes the character of the work.

35. Force Account.

Add the following to standard spec 109.4.5.1 (3)1:

Include accumulation of wages to date for each employee performing force account work and identify allowable Federal Unemployment Tax (FUTA) and State Unemployment Tax (SUTA) multipliers.

sef-109-005 (20180104)

36. Clearing and Grubbing, Emerald Ash Borer.

This applies to projects in the emerald ash borer (EAB) quarantined zones to include: Adams, Brown, Buffalo, Calumet, Columbia, Crawford, Dane, Dodge, Door, Douglas, Fond du Lac, Grant, Green, Iowa, Jackson, Jefferson, Juneau, Kenosha, Kewaunee, La Crosse, Lafayette, Manitowoc, Marquette, Milwaukee, Monroe, Oneida, Outagamie, Ozaukee, Portage, Racine, Richland, Rock, Sauk, Sheboygan, Trempealeau, Vernon, Walworth, Washington, Waukesha, Winnebago and Wood counties.

Supplement standard spec 201.3 with the following:

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

Ash trees species attacked by emerald ash borer include the following:

a) Green ash (*F. pennsylvanica*) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.
b) Black ash (*F. nigra*) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.
c) Blue ash (*F. quadrangulata*) is a threatened species that is currently found only at a few sites in Waukesha County. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance. Blue ash twigs are 4-sided.
d) White ash (*F. americana*) tends to occur primarily in upland forests, often with *Acer saccharum.*

The quarantine of ash trees includes all horticultural cultivars of the species listed above.

Note that blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems. Also, Mountain ash (*Sorbus americana and S. decora*) is not a true ash and is not susceptible to EAB infestation.

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with florescent lime flagging tied around the trunk perimeter.

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

ATCP 21.17 Emerald ash borer; import controls and quarantine.

(1) Importing or Moving Regulated Items from Infested Areas; Prohibition.

Except as provided in subparagraph (3), no person may do any of the following:

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

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

(2) **Regulated Items**. The following are regulated items for purposes of subparagraph:
a) The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.
b) Ash trees.
c) Ash limbs, branches, and roots.
d) Ash logs, slabs or untreated lumber with bark attached.
e) Cut firewood of all non-coniferous species.
f) Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.
g) Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

(3) Inspected and Certified Items; Exemption.

Subsection (1) does not prohibit the shipment of a regulated item if a pest control official in the state or province of origin does all of the following:

a) Inspects the regulated item.
b) Certifies any of the following in a certificate that accompanies the shipment:

1. The regulated item originates from non−infested premises and has not been exposed to emerald ash borer.
2. The regulated item was found, at the time of inspection, to be free of emerald ash borer.
3. The regulated item has been effectively treated to destroy emerald ash borer. The certificate shall specify the date and method of treatment.
4. The regulated item is produced, processed, stored, handled or used under conditions, described in the certificate, that effectively preclude the transmission of emerald ash borer.

Regulatory Considerations

a) The quarantine means that ash wood products may not be transported out of the quarantined area.
b) Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for the disposal:

Chipped Ash Trees

a) May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.
b) May be buried on site within the right-of-way according to standard spec 201.3 (14).
c) May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer according to standard spec 201.3 (15).
d) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).
e) Burning chips is optional if in compliance with standard spec 201.3.
f) Chips must be disposed of immediately if not used for project mulching and may not be stockpiled and left on site for potential transport by others. Chips may be stockpiled **temporarily** if they will be used for project mulching and **are not readily accessible to the public**.
g) Chipper equipment must be cleaned following post-chipping activities to ensure no spread of wood chip debris into non-quarantined counties.

Ash logs, Branches, and Roots

a) May be buried without chipping within the existing right-of-way or on adjacent properties according to standard spec 201.3 (14)(15).
b) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).
c) Burning is optional if in compliance with standard spec 201.3.
d) Ash logs, branches, and roots must be disposed of immediately and may not stockpiled.
e) All additional costs will be incidental to clearing and grubbing items.
f) Do not bury or use mulch in an area that will be disturbed again during later phases of the project.
g) Anyone moving firewood or ash products from the state or these counties is subject to state and federal fines up to $1,000.00. All fines are the responsibility of the contractor. Obtain updated quarantine information at the DNR Firewood Information Line at 1 (800) 303-WOOD.

Furnishing and Planting Plant Materials

Supplement standard spec 632.2.2 with the following:

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

Updates for Compliance

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

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

Regulated Items

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

SER-201.1 (20160808)

37. Removing or Abandoning Miscellaneous Structures.

Replace standard spec 204.5.1(3) with the following:

When backfilling with Backfill Granular as specified in this special provision article or as directed by the engineer, the item Backfill Granular is considered incidental to the appropriate bid item.

At locations where Backfill Granular is not specified, contractor may choose to use either Backfill or Backfill Granular, and no separate payments will be made for using Backfill Granular.

Supplement standard spec 204.3.2.2 with the following:

Backfill existing storm sewer or existing storm sewer structure locations shown for removal or abandonment outside the new traveled way with native backfill immediately after completing the sewer work. Backfill according to standard spec 209 within the traveled way.

All backfill, including native material, provided for removal or abandonment of existing storm sewer structures and pipes is considered incidental to the appropriate bid item.

SEF Rev. 14_1215

38. Removing Draintile, Item 204.9090.S.001.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Draintile in linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.001	Removing Draintile	LF

stp-204-025 (20150630)

39. Roadway Excavation

Replace standard spec 205.3.2(2) with the following:

Salvage topsoil, as specified in Article Topsoil Special, from excavation areas and the roadway foundation. Remove topsoil present below subgrade in cut sections and excess topsoil from embankment areas not required to cover side slopes as excavation common. Dispose of excess topsoil according to standard spec 205.3.12. Utilize Roadway Embankment to backfill areas of topsoil removal as directed by the engineer. The engineer may require EBS Backfill to fill shallow areas at cut-fill transitions to address stability issues related to the underlying soils.

Add the following to standard spec 205.5.2(1):

Provide the department with an earth flow diagram within 15 calendar days of receiving the contract Notice to Proceed. Identify all excavation required for the project, all sources of roadway embankment fill including offsite material, shrinkage and swell factors, proposed stockpile material, structure excavation (if used in embankments), and waste. Provide start and finish dates for each grading area within the division. These dates should correspond to the dates shown on the project schedule.

Any deviation from the sequencing shown in the earth flow diagram will require approval from the engineer, and will require an update to the earth flow diagram.

Add the following to standard spec 205.5.2(2):

The department will not pay EBS to remove frost from embankments or cut sections, unless directed by the engineer. It is the contractor's responsibility to stage construction so that exposed subgrades do not freeze or to provide adequate frost protection. Any work necessary to remove and replace frozen materials from newly constructed embankments or exposed cut sections is considered incidental to the excavation bid items.

40. QMP Subgrade.

A Description

This special provision describes requirements for subgrade materials within the roadway foundation as defined in standard spec 101.3. Conform to standard spec 207 as modified in this special provision for all work within the roadway foundation at the following locations:

- International Drive
- Louis Sorenson Road

Provide and maintain a quality control program. A quality control program is defined as all activities, including process control inspection, sampling and testing, documentation, and necessary adjustments in the process that are related to the construction of subgrade which meets all the requirements of this provision.

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

http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

B Materials

B.1 Quality Control Plan

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

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

- An organizational chart with names, telephone numbers, current certifications or titles, and roles and responsibilities of QC, QV, and IA personnel.
- The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
- An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
- Location of the QC laboratory, retained sample storage, and control charts and other documentation.
- A summary of the locations and calculated quantities to be tested under this provision.
- An explanation regarding the basis of acceptance for material that cannot be tested by nuclear methods due to a high percentage of oversized particles.

B.2 Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a grading technician certified under HTCP at level I (or ACT Grading Technician under the direction of a certified technician) present at the site during all subgrade preparation, fill placement, compaction, and nuclear testing activities. Have a nuclear density technician certified under HTCP at level I perform field density and field moisture content testing.

B.3 Laboratory

Perform quality control testing in a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Laboratory
3502 Kinsman Boulevard
Madison, Wisconsin 53704-2583
Telephone: (608) 246-7938
http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx

B.4 Equipment

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

Furnish nuclear gauges from the department's approved product list at:

http://www.atwoodsystems.com/.

Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge. Nuclear density gauge calibration verification is required daily when earthwork construction operations require testing under this special provision article. This calibration verification shall be performed using the departments "Validator" apparatus which is located at the 94 N-S construction field office. Establish a standard gauge reading for the "Validator" using the ten test average method. The source emitter depth for calibration verification, in the direct transmission mode, will be determined by the engineer. This procedure will establish the "Validator" apparatus, as the contractor's project reference site.

Conform to ASTM D 2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

B.5 Soil Source Study

Conduct and submit a soil source study before beginning of grading operations. Ensure that this study identifies each distinct soil type on the project within the top 15 feet of cut areas and all borrow material. Provide the in-bank natural moisture content for each soil. Develop moisture-density curves for each identified soil type by utilizing AASHTO T 99, with a minimum of 5 individual points, and a zero air voids curve at a specific gravity of 2.65. If a different specific gravity is used perform a specific gravity test. Determine the maximum density and corresponding optimum moisture level for each soil type. Develop a site-specific family of Proctor curves for this contract from the completed soil source study and submit to the engineer for review and acceptance.

Perform characterization tests on each of the soil types selected for the soil source study. The tests for roadway include AASHTO T 89, AASHTO T 90, AASHTO T 27, and AASHTO T 11. Classify each soil type selected according to the AASHTO soil classification system based on the characterization tests. Do not begin grading operations until the engineer accepts the soil source study.

Use the soil types identified in the soil source study with corresponding maximum densities and optimum moisture values to determine the compaction compliance on the project. Continue the soil source study in those areas of cuts greater than 15 feet that were not accessible during the initial study. Include data on additional soil types if project conditions change. Ensure that tests of additional soil types are complete and the engineer accepts the results before incorporating the material into the roadway foundation.

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

Regional Materials Laboratory
Attn: Paul Emmons
935 S. 60th Street
West Allis, Wisconsin 53214
Telephone: (414) 266-1158

Retain and identify two representative samples of each Proctor. Submit one sample to the engineer. Retain one sample on site for use when performing textural identification.

B.6 Quality Control Documentation

B.6.1 Control Charts

Maintain separate control charts for the field density and field moisture content of each grading area. Designate grading areas within the project as follows:

- Embankment portions of the project, except within 200 feet of bridge abutments.
- Embankment within 200 feet of bridge abutments.
- Subgrade cut portions of the project.
- Embankment in pipe culvert, sewer and waterline trenches.
- Structure and granular backfill placed at bridge abutments.
- Embankments of the project where embankments are 20 feet or higher regardless of location to be known as special compaction area.

Ensure that all tests are recorded and become part of the project records. Plot required test results on the control charts. Include random and engineer-requested testing but only include the contractor's randomly selected QC test results in the 4-point running average. The contractor may plot other contractor-performed process control or informational tests on the control charts, but do not include them in 4-point running averages.

Post control charts in an engineer-approved location and update daily. Ensure that the control charts include the project number, the test number, each test element, the applicable control limits, the contractor's individual test results, the running average of the last 4 data points, and the engineer's quality verification test data points. Use the control charts as part of a process control system for identifying potential problems and assignable causes. Format control charts according to the CMM.

Submit control charts to the engineer in a neat and orderly manner within 10 business days after completing subgrade construction.

B.6.2 Records

Document all observations, inspection records, and adjustments to fill placement procedures, soil changes, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record.

Provide copies of the field density and field moisture running average calculation sheets, records of procedure adjustments, and soil changes to the engineer and QV personnel daily.

Submit original testing records to the engineer in a neat and orderly manner within 10 business days after completing subgrade construction.

B.7 Contractor Testing

B.7.1 General

Have a grading technician certified under HTCP at level I (or ACT Grading Technician under the direction of a certified technician) present during all subgrade preparation, fill placement, compaction, and testing. Have a nuclear density technician certified under HTCP at level I perform the testing for field density and field moisture content. During subgrade construction, use sampling and testing methods identified in the CMM to perform the required tests at randomly selected locations at the indicated minimum frequency for each grading area.

Determine the cubic yards for testing based on a total load count system the engineer and contractor agree to.

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 0.5 feet vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location.

Test areas of suspect compaction or areas which appear to be nonconforming as determined by the engineer.

B.7.2 Field Density and Field Moisture

Perform the field density and field moisture tests using the nuclear density meter method according to AASHTO T 310. Ensure that each field density test material is related to one of the specific soil types identified in the soil source study in determining the percent compaction. Use textural identification as the primary method of establishing this relationship. Use the representative samples retained from the soil source study when performing the textural identification. Use a coarse particle correction according to AASHTO T 224.

If field density and field moisture tests cannot be performed by the nuclear density method due to a high percentage of oversized particles as determined according to AASHTO T 99 for highway embankments, observe the placement of the embankment and document the basis of acceptance. Document daily quantities of untested embankment and locations where untested embankment is placed, and keep a cumulative quantity of untested embankment material during the project. Include the daily documentation and a summary of the cumulative quantity of untested embankment material with the project records.

B.7.3 Testing Frequency

B.7.3.1 Subgrade Embankment portions of the project, except within 200 Feet of bridge abutments

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.

B.7.3.2 Subgrade Embankment Within 200 Feet of Bridge Abutments

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 1,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.

B.7.3.3 Subgrade Cut

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 1,000 linear feet of cut or one test per cut area whichever yields the most tests. The testing will be completed at the finished subgrade elevation.

B.7.3.4 Subgrade Embankment in Pipe Removals, Pipe Culvert, Sewer and Waterline Trenches

Perform the required tests at the following minimum frequencies per trench run between structures. Test trenches individually at the frequency listed in this section. For example, lateral lines and trunk lines are to be considered individual trenches:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 100 CY of backfill placed per lift or one test per day whichever yields the most tests.

B.7.3.5 Structure and Granular Backfill at Bridge Abutments

Perform the required tests at the following minimum frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 2 feet of vertical backfill height per abutment.

B.7.3.6 Embankments of the project 20 feet or higher regardless of location to be known as special compaction area

Perform the required tests at the following minimum frequencies but exclude MSE wall backfill:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.

B.7.4 Control Limits

B.7.4.1 Field Density

B.7.4.1.1 General Conditions

The lower control limit for field density measurements is a minimum of 95.0 percent of the maximum dry density as determined by AASHTO T 99 or T 272for the 4-point running average and a minimum of 92.0 percent of the maximum dry density for any individual test.

B.7.4.1.2 Embankments of the project 20 feet or higher regardless of zone to be known as special compaction area excluding MSE wall backfill

The lower control limit for field density measurements in the special compaction area is a minimum of 98.0 percent of the maximum dry density as determined by AASHTO T 99 or T 272 for the 4-point running average and a minimum of 95.0 percent of the maximum dry density for any individual test.

B.7.4.2 Field Moisture Content

The upper control limit for the field moisture content for embankment material within 5 feet or less of finished subgrade is 105.0 percent of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average.

The upper control limit for the field moisture content for embankment material greater than 5 feet below finished subgrade is 110.0 percent of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average.

The lower control limit for the field moisture content in for all embankments is 65.0 percent of the determined optimum moisture for the 4-point running average. There is no lower control limit for the field moisture of material having less than 5 percent passing the No. 200 sieve.

B.7.5 Corrective Action

Notify the engineer if an individual field density test falls below the individual test control limit. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the subgrade material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

Notify the engineer if the field density or field moisture running average point falls below the running average control limit for field density or outside the control limits for field moisture. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the quality of the material represented by the running average point. Retest each corrected area at a new random location within its represented quantity and determine a new 4-point running average. If the new running average is not acceptable, perform further corrective actions and retest at new random locations.

If the contractor's control data is proven incorrect resulting in a field density or field moisture point falling below the control limit for field density or outside the control limits for field moisture, the subgrade is unacceptable. Employ the methods described in this special provision for unacceptable material.

B.8 Department Testing

B.8.1 General

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 verification and independent assurance personnel for the project.

The department will provide field density and field moisture test results to the contractor on the day of testing. Test results from Proctor split samples will be provided to the contractor within 7 business days after the sample has been received by the department.

B.8.2 Verification Testing

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

The department will test field density and field moisture randomly at locations independent of the contractor's QC work. The department will use split samples for verification of Proctor testing. In all cases, the department will conduct the verification tests in a separate laboratory and with separate equipment from the contractor's QC tests.

The department will perform verification testing as follows:

1. The department will conduct verification tests on Proctor split samples taken by the contractor. These samples may be from the Soil Source Study or sample locations chosen by the engineer from anywhere in the process. The minimum verification testing frequency is one per 90,000 cubic yards, with at least one for each soil type identified in the Soil Source Study.
2. The engineer may select any contractor-retained sample for verification testing.
3. The department will conduct at least one verification test for field density and field moisture per 20,000 cubic yards.

Plot verification tests on the contractor's quality control charts as specified in B.6.1. Do not include verification tests in the 4-point running average.

If verification tests are within specified control limits, no further action is required. If verification tests are not within specified control limits, the engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's sampling and testing procedures and equipment. Both parties will document all investigative work.

Correct all deficiencies. If the contractor does not respond to an engineer request to correct a deficiency or resolve a testing discrepancy, the engineer may suspend grading work until action is taken. Resolve disputes as specified in B.9.

B.8.3 Independent Assurance Testing

Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program, which 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.

Plot the independent assurance tests on the contractor's quality control charts as specified in B.6.1. Do not include independent assurance tests in the 4-point running average.

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

B.9 Dispute Resolution

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.

If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming 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 tests 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.

B.10 Acceptance

The department will accept the material tested under this provision based on the contractor QC tests unless it is shown through verification testing or the dispute resolution process that the contractor's test results are in error.

C (Vacant)

D (Vacant)

E Payment

Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor does not 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.

~~sef-207-005 (20171004)~~

41. QMP Base Aggregate.

A Description

A.1 General

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

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

(3) Do not apply this special provision to material placed 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.

http://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf

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 certifications with HTCP numbers, and expiration dates, 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. Testing frequency:

Contract Quantity	Minimum Required Testing per source
≤ 6000 tons	One stockpile test before 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 before 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:

- Department testing may be waived for contract bid item 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:

SAMPLING AND TESTING ROLES	TEST STANDARD	REQUIRED CERTIFICATION
Random Sampling of Materials Sampling Aggregates	ASTM D3665 AASHTO T2 [1]	Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG)
Percent passing the 200 Sieve Gradation Moisture Content Fractured Faces	AASHTO T11 AASHTO T27 AASHTO T255 ASTM D5821	Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG)
Liquid and Plasticity Index	AASHTO T89 AASHTO T90	Aggregate Testing for Transportation Systems (ATTS) Grading Technician I (GRADINGTEC-1) Grading Assistant Certified Technician (ACT-Grading)
Plasticity Check	AASHTO T90	Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) Grading Technician I (GRADINGTEC-1) Grading Assistant Certified Technician (ACT-Grading)

[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 before placement. One stockpile test may be used for multiple projects up to 60 calendar days.

(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 watering and 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 before 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 watering and 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 (20171130)

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

A Description

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

B (Vacant)

C Construction

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

D Measurement

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

E Payment

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

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

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

The department will adjust pay for crack repairs as specified in standard spec 415.5.3

stp-415-020 (20170615)

43. Asphaltic Surface Temporary.

Replace standard spec 465.2 (1) with the following:

Under the Asphaltic Surface Temporary bid item; submit a mix design. Furnish asphaltic mixture meeting the requirements specified for type MT under standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program (QMP) specified under standard spec 460.2.8.

sef-465-005 (20170310)

44. Cold Patch, Item 495.1000.S.

A Description

This special provision describes furnishing cold patch and filling potholes and other voids in existing pavement surfaces as the engineer directs.

B Materials

Furnish a mixture of course aggregate, natural sand, and MC-250 bituminous material designed to have a workability range of 15-100º F without heating. Ensure that the mixture:

- Adheres to wet surfaces.
- Resists damage from water, salt, and deicing products.
- Requires no mixing or special handling before use.
- Supports traffic immediately after placement and compaction.

Conform to the following gradation:

SIEVE SIZE	PERCENT PASSING (by weight)
1/2-inch (12.5 mm)	100
3/8-inch (9.5 mm)	90 - 100
No. 4 (4.75 mm)	90 max
No. 8 (2.38 mm)	20 - 65
No. 200 (0.074 mm)	2 - 10
Bitumen	4.8 - 5.4

The department will accept cold patch based primarily on the engineer's visual inspection. The department may also test for gradation.

C Construction

Stockpile cold patch on site on a smooth, firm, well-drained area cleared of vegetation and foreign material. Cover the stockpile and ensure that it is easily accessible. Replenish the stockpile throughout the project duration, but limit the size at any given time to 10 tons on site unless the engineer approves otherwise. Dispose of unused material at project completion unless the engineer directs otherwise.

Place cold patch by hand. Remove ponded water and loose debris before placement. Compact flush with a tamper, roller, or vehicle tire after placement.

Refill patched areas as necessary to maintain a flush pavement surface until project completion.

D Measurement

The department will measure Cold Patch by the ton, acceptably stockpiled on site.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

Payment for Cold Patch is full compensation for providing and maintaining patches; for furnishing and replenishing stockpiled material on-site; and for disposing of excess material at project completion.

stp-495-010 (20160607)

45. Concrete Masonry Structures.

A Description

A.1 General

Work under this item applies to cast in place concrete for structures. Conform to standard spec 501, 502, 504, 701, 710 and 715 and as modified in this special provision. Apply this special provision to all cast in place concrete placed under the following bid items:

504.0100 Concrete Masonry Culverts

504.0200 Concrete Masonry Culverts HES

504.0900 Concrete Masonry Endwalls

A.2 Concrete Masonry Bridges

Work under the item Concrete Masonry Bridges applies to cast in place concrete for bridge substructures, box culverts, and endwalls.

B (Vacant)

C Construction

Replace standard spec 501.3.8.2 with the following:

The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions taken to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 90 F, do not place concrete under the following bid items:

Concrete Masonry Culverts

Concrete Masonry Culverts HES

Concrete Masonry Endwalls

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, obtain information from similar mixes placed for other nearby work.

Any additive or action taken to control the temperature of the Concrete Masonry to within the limits of this special provision, excluding the addition of ice to the concrete mix, is considered incidental to the work and will not be measured or paid for separately.

Add the following to standard spec 501.3 as subsection eleven:

501.3.11 Slip Forming

Do not place concrete by the slip-form method for any item covered by this special provision.

D (Vacant)

E (Vacant)

sef-504-005 (20180104)

46. Storm Sewer

Supplement standard spec 204.5.1 with the following:

QMP sampling, testing and documentation if applicable is incidental to removing storm sewer bid item and no separate payment will be made.

Supplement standard spec 608.2 with the following:

Two weeks prior to start of storm sewer construction, provide a shoring design and installation sequence for each location where shoring is to be used. Have a professional engineer, currently registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one electronic copy in portable document format of each shoring design, signed and sealed by the same professional engineer verifying the design, to the engineer for incorporation into the permanent project record.

Supplement standard spec 608.3.1 with the following:

(1) Incorporate excavated material in the work to the extent practicable. Use materials with suitable engineering properties for embankment.

(2) Dispose of surplus or unsuitable material as specified in 205.3.12.

Supplement standard spec 608.3.3 with the following:

Place rubber gasket joints over the spigot end or tongue of the entering pipe for all round storm sewer pipes horizontal and elliptical pipes with a rise less than or equal to 40-inches. Clean the gasket and the ends of the pipe from sand and gravel. If the gasket provided is neither factory lubricated nor self-lubricating, lubricate the outside of the gasket and the inside of the bell or groove of the last pipe with an engineer - approved vegetable lubricant immediately before making the joint. Place the spigot or tongue of the pipe being laid with the gasket in place into the bell or groove end of the previously laid pipe. Set pipe carefully to line and grade, and push or jack home. The engineer may order the use of ajack or “come-along” if deemed necessary to ensure that the joints are completely tight.

For horizontal elliptical pipe rise greater than 40-inches use mastic joint compound. Where factory lubricated rubber gasket joints are not available, clean the ends of the pipe from sand and gravel. Place engineer-approved mastic joint sealer on both the spigot and bell ends of the pipe being laid. Apply additional mastic around each joint exterior and wrap each joint with Geotextile Fabric Type DF laid flat meeting requirements of standard spec 645. Wrap each joint so that the Geotextile Fabric overlaps each joint a distance of approximately ½ of the pipe diameter.

Replace standard spec 608.5(2) with the following:

Payment for the Storm Sewer Pipe bid items is full compensation for providing all materials, including all special Y's, mitered sections, elbows and connections required; for all submittals; for excavating and wasting excess material, except rock excavation; for providing rubber gaskets; Lubrication of rubber gaskets; mastic joint sealer; for supporting utilities in storm sewer trench; for shoring design, providing a signed and sealed copy of the design; for installation, monitoring, and removal of shoring; for forming foundation; for laying pipe; for sealing joints and making connections to new or existing features, bedding material; for backfilling and granular backfill material; for QMP sampling, testing and documentation; for cleaning out; and absent the pertinent contract bid items, for restoring the work site.

47. Catch Basins, Manholes, and Inlets.

Supplement standard spec 611.3.1 with the following:

Use a Grade "A" concrete for final adjustment of manhole cover. Provide a butyl rubber gasket or butyl rubber rope for joints of precast reinforced concrete manhole sections. Butyl Rubber gasket joint used for manholes conforms to 8.41.6 of the Standard Specification for Sewer and Water Construction in Wisconsin, latest Edition. Provide non-rocking covers for all drainage structures subject to traffic loading.

Submit shop drawings for all drainage structures. For structures where WisDOT standard detail drawings are not available, provide shop drawings prepared, verified and stamped by a professional engineer currently registered in the State of Wisconsin. Submit one electronic copy of shop drawings in portable document format for engineer's review two weeks before fabrication. Show clearly on shop drawings information for all pipe connections to the structure. The contractor is responsible for all errors of detailing and fabrication. The omission from the shop drawings of any pipe connection shall not relieve contractor of the responsibility of providing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

Supplement standard spec 611.3.2 with the following:

Conform to storm sewer concrete collar detail for storm sewer pipes to structure connections as shown on the plans.

Supplement standard spec 611.3.3 with the following:

Use monolithic concrete shimming as the plan shows for final adjustment of drainage structures located within the concrete pavement, concrete shoulders, concrete curb and gutter and concrete barrier wall.

Supplement standard spec 611.3.7 with the following:

Construct height adjustments of 4-inches or more with concrete grade rings. Never use grade rings less than 2-inches thick.

Replace standard spec 611.5.2 (1) with the following:

Payment for Catch Basins, Manholes, and Inlets bid items is full compensation for providing all submittals; materials, including all masonry, and concrete bricks, for Grade "A" concrete adjustments and monolithic concrete shimming; adjusting rings; conduit and sewer connections, steps, and other fittings; for providing and installing butyl rubber joints; for furnishing backfill, backfilling; all excavating, disposing of surplus material, and for cleaning out and restoring the work site; except that the department will pay for covers, including frames, grates and lids separately.

Cost of non-rocking covers for all drainage structures subject to traffic loading is incidental to new cover on proposed structure or reconstructing/adjusting manholes or inlets on existing structure.

48. Pipe Grates, Item 611.9800.S.

A Description

This special provision describes providing pipe grates on the ends of pipes.

B Materials

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

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S	Pipe Grates	EACH

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

stp-611-010 (20030820)

49. Drain Tile Exploration.

Replace standard spec 612.3.6 with the following:

(1) Under the Drain Tile Exploration bid item, excavate an exploratory trench to locate existing farm drain tile. The anticipated trench location is near the east slope intercept as shown on the storm sewer plans.

(2) Construct the trench a minimum 12 inches wide and deep enough to intercept all existing tile lines. Keep the trench open until the engineer orders it backfilled. Use the material obtained from the trench excavation for backfill.

(3) Coordinate with engineer in establishing a map of the existing field tile. Upon exposure of field tile provide existing flow line elevations, size, material type, and location of field tile in electronic format which is coordinately correct with the project. Provide survey shots at edge of proposed slope intercept.

(4) Develop a Drain Tile Connection plan confirming all drain tile connections to the proposed structures. Plan to include pipe size, location, elevation, and method of connection (to proposed storm system or to downstream end of tile). Plan is to cover entire project limits both North and South of Louis Sorenson.

5)Take special consideration for locating an existing 20-Inch drain tile running Northeast under the proposed Right-of-Way North of Louis Sorenson Road. Pending elevation review, determine feasibility of discharge location to Pond H. Address location in the Drain Tile Connection Plan.

(6) Any work that is advanced prior to consent of the field tile connection plan being approved, which requires rework to address changes needed to accommodate field tile connections is incidental to the contract.

Replace standard spec 612.5(4) with the following:

Payment for Drain Tile Exploration is full compensation for all excavating, backfilling, and for restoring the work site. All coordination activities for data collection, exposure of field tile, and documentation of field tile locations and survey shots at the proposed slope intercept in electronic format which is coordinately correct with the project. Development of the drain tile connection plan to the proposed structures. Any rework derived from not having prior approval on drain tile connection plan.

50. Fence Safety, Item 616.0700.S.

A Description

This special provision describes providing plastic fence at locations the plans show.

B Materials

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

Furnish fence fabric meeting the following requirements.

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

C Construction

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

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

stp-616-030 (20160607)

51. Soil Stabilizer Type B.

Replace standard spec. 628.3.12.3 (1) with the following:

(1) Apply soil stabilizer with conventional hydraulic seeding equipment at the manufacturer's recommended rate unless the engineer directs otherwise.

52. Pond Liner Clay, Item 640.1303.S.

A Description

This special provision describes providing low permeable clay in areas the plans show.

B Materials

For each source, before excavating and hauling the low permeable clay to the project, submit the results of the laboratory tests described in Table 1. The laboratory testing shall document that the clay from the source meets or exceeds the requirements.

The sample for the hydraulic conductivity test shall be remolded clay at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test AASHTO T-99 and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test AASHTO T-99. Conduct the laboratory source testing at the frequency listed in Table 1. Submit the test results to the engineer for review, two weeks before construction.

C Construction

C.1 Low Permeable Clay Placement

C.1.1 Subgrade

Compact the subgrade to a minimum density as defined in standard spec 207.3.6.2, Standard Compaction, or as otherwise specified in the contract requirements.

C.1.2 Erosion Protection

Do not place the low permeable clay until after all adjacent site grading has been completed and only after silt fence has been installed completely around the area of low permeable clay placement.

C.1.3 Low Permeable Clay Placement

After the fine grading is complete, place and compact low permeable clay in completed 6-inch lifts. Place each lift of low permeable clay in one continuous lift. See plans for low permeable clay construction limits. Measure the thickness of the low permeable clay the plans show perpendicular to the surface.

Notify the engineer at least three days before starting construction of low permeable clay.

Table 1

Reference	Number	Test Title	Requirements	Testing Frequency	
				Screening	QA/QC[12]
AASHTO[1]	T99-01	Moisture –Density Relationships of Soils Using a 2.5-kg (5.5 lb) Rammer a 305 mm (12-in.) Drop (Standard Proctor)	NA[11]	1/source	NA
AASHTO	T-88-00	Particle Size Analysis of Soils	P200[3] $\geq$ 50%	2/source	1/lift
AASHTO	T-89-02	Determining the Liquid Limit of Soils	LL[4] $\geq$ 22%	2/source	1/lift
AASHTO	T-90-00	Determining the Plastic Limit and Plasticity Index of Soils	PI[5] $\geq$ 12%	2/source	1/lift
AASHTO	T310-03	In-Place Density and Moisture Content of Soils and Soil-Aggregates by nuclear Methods (Shallow Depth)	DD[6] $\geq$ 95% of the MDD[7]	NA	100'x100' Grid/lift
ASTM[2]	D5084-03	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	K[8] $\leq 1 \times 10^{-7}$ cm/sec	1/source[9]	1/site[10]

Notes:

1. AASHTO = American Association of State Highway and Transportation Officials
2. ASTM = American Society of Testing and Materials
3. P200 = Percent by weight passing the #200 sieve (%)
4. LL = Liquid Limit (%)
5. PI = Plasticity Index (%)
6. DD = Dry Density (pcf)
7. MDD = Maximum Dry Density (pcf) as determined by the Standard Proctor Test
8. K = Hydraulic Conductivity (cm/sec)
9. The sample for the test shall be remolded at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test.
10. An undisturbed sample from a thinned walled sampler (Shelby tube)
11. NA = Not applicable
12. QA/QC = Quality Assurance / Quality Control

Compact the low permeable clay to a minimum of 95% Standard Proctor AASHTO T-99 Maximum Dry Density with a footed compaction equipment having feet at least as long as the loose lift height. As needed, clay shall be disked or otherwise mechanically processed before compaction to break up clods and allow moisture content adjustment. Clod size shall be no greater than 4 inches. All compaction equipment utilized shall have a minimum static weight of 30,000 pounds.

Provide all equipment necessary to adjust low permeable clay to the proper moisture content for compaction.

Make sufficient number of passes of the compaction equipment over each lift of clay to ensure complete remolding of the clay.

Do not proceed with placement of additional lifts until all required low permeable clay testing and documentation has been completed for the previous lift.

During placement of the low permeable clay the minimum moisture content shall be as defined by the testing performed in the source evaluation and with the following limits:

- No drier than the optimum moisture content as determined by the Standard Proctor test.

If the in-place low permeable clay fails to meet the requirements of Table 1, then remove and replace or rework any portion of the low permeable clay not meeting the project requirements until project specifications are met. There shall be no compensation for removing, replacing and reworking low permeable clay not meeting the requirements in Table 1.

C.1.4 QA/QC Testing of the Low Permeable Clay

The department will perform the QA/QC testing at the frequency shown in Table 1. The department will record the thickness of low permeable clay on a 100 foot x 100 foot grid pattern.

Provide the following:

- Access for on-site testing, inspection, and documentation.
- Machinery required to grade/blade density test locations.
- Machinery required to collect undisturbed clay samples (i.e., with Shelby tubes).
- Replace and recompact clay material removed for testing purposes.

D Measurement

The department will measure Pond Liner Clay in volume by the cubic yards, 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
640.1303.S	Pond Liner Clay	CY

Payment is full compensation for dewatering areas of site where the low permeable clay is to be placed; for furnishing, placing and compacting the low permeable clay; and for performing all tests.

stp-640-016 (20130615)

53. Field Facilities.

Replace standard spec 642 with the following:

The department has procured its own Field Facilities located at the state-owned park and ride at the southeast quadrant of the IH94 and STH 11 interchange.

54. Covering Signs.

Replace standard spec 643.2.3.3(2) with the following:

(2) Ensure that covers are flat black, blank, and opaque.

Add the following to standard spec 643.3.4.1 as paragraph four:

(4) If multiple messages on a single sign are required to be covered, minimize the number of holes created by covering the sign with a single rectangular shaped covering. Multiple coverings on a single sign is only permissible where necessary to avoid covering necessary content or as directed by the engineer. Submit sign covering plans to the engineer for single signs requiring multiple coverings 3 days before performing work. Obtain engineer approval before covering signs. Remove sign coverings before placing fixed messages signs unless otherwise directed by the engineer.

sef-643-005 (20180104)

55. Traffic Control.

Supplement standard spec 643.3.1 with the following:

Provide the Racine County Sheriff's Department, the Wisconsin State Patrol, Village of Mount Police Department and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Do not park or store equipment, contractor’s and personal vehicles or construction materials within the clear zone or on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Do not permit construction or personnel equipment or vehicles to directly cross the live traffic lanes of STH 11. Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway. Do not cross live traffic lanes of CTH H with equipment or vehicles.

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

Do not disturb, remove or obliterate any traffic control signs, advisory signs, sand barrel array, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer.

Flagging operations shall follow standard spec 104.6.1.(4) and chapter 6E of the WMUTCD.

Replace standard spec 643.3.1.(7) with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.

SER-643.1 (20170808)

56. Temporary Pavement Marking

Add the following to standard spec 649.3:

(1) On pavements not scheduled for removal under this project, remove markings using air blasting, water blasting, or a combination of thereof. Do not use grinding on these pavements.

57. General Requirements for Electrical Work.

Replace standard spec 651.3.3(3) with the following:

(3) Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize continuation to aboveground work or turn-on until the contractor corrects all deficiencies.

58. Traffic Signals, General.

Work under this item shall consist of furnishing and installing materials for the traffic signal infrastructure for the north leg of STH 11 and International Drive intersection. Ensure that tracer wire and pull tape is installed in all conduit per standard spec 652.3.1.1.

59. Electrical Conduit.

Replace standard spec 652.5(2) with the following:

(2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

60. Transformer Bases Breakaway 11 ½-Inch Bolt Circle.

Append standard spec 657.2.2.5 with the following:

(6) Provide a 1/8-Inch aluminum or galvanized steel plate to cover the topo opening of any transformer base that will not have an attached pole. Bolt the cover to the transformer base to prevent water from entering the infrastructure.

Replace standard spec 657.5(2) with the following:

(2) Payment for Pedestal Bases and the Transformer Bases bid items is full compensation for providing the pedestal and transformer bases including grounding lugs and related mounting hardware; for leveling shims; for aluminum or galvanized steel covers for all bases without a pole; and for corrosion prevention. The department will pay for sample pedestal and transformer bases, provided under standard spec 657.2.2.5, at the contract unit price for Pedestal Bases.

61. Roadway Embankment, Item SPV.0035.001.

A Description

This special provision describes placing in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation or excavation for structure sections; or material obtained off site as specified under these special provisions.

B Materials

B.1 Embankment

Furnish roadway embankment conforming with standard spec 207.2 except as follows:

Supplement standard spec 207.2(1) with the following:

The contractor may not place excess topsoil or other unstable soil in embankments when the embankment height exceeds ten feet.

If the contractor utilizes offsite material to construct embankments, the material shall conform to standard spec 208 except as follows:

- The contractor shall be responsible for complying with all permit requirements in obtaining off site material.
- Delete standard spec 208.2.2(2).

C Construction

Construct roadway embankment according to standard spec 207.3 except as follows:

Supplement standard spec 207.3.6 with the following:

Prior to placing any material for a succeeding layer, ensure the previous layer does not have excessive rutting, displacement, or distortion under the compacting or hauling equipment. If rutting, displacement, or distortion is observed, the contractor shall inform the engineer how yielding material will be addressed prior to continuing roadway embankment construction.

If off site material is utilized, construction must conform to standard spec 208.3.

D Measurement

The department will measure roadway embankment without any correction for shrinkage or expansion factors by the cubic yard acceptably completed in its final location using the method of average end areas, except as follows:

1) The engineer and contractor mutually agree to an alternative volume calculation method.
2) If it is not possible to compute volumes of the various classes of roadway and drainage embankment by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by three-dimensional measurements.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	Roadway Embankment	CY

Payment is full compensation for furnishing offsite and onsite sources, for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments. If offsite materials are utilized for roadway embankments, payment includes full compensation for all items listed in standard spec 208.5 (2), for obtaining all required permits, and all other incidental work required under this section.

ASP-5 will be applied to this item. The Fuel Usage Factor is 0.23.

62. EBS Excavation, Item SPV.0035.002.

A Description

This special provision describes excavating and disposing of material taken below the subgrade of future pavement structures at locations determined by the engineer. The removal of excess topsoil shall be paid under common excavation.

B Materials

Excavate all materials below subgrade not classified as rock, stone piles and stone fences, or marsh excavation. Perform work according to standard spec 205.2.2 and as hereinafter provided.

C Construction

Perform work according to the pertinent provisions of standard spec 205.3 and as hereinafter provided.

C.1 Yielding Subgrade

After rough grading on all or a portion of the subgrade in cut areas and in areas requiring 2 feet or less embankment is complete and the grade is ready for blue tops, point out areas of yielding subgrade to the engineer. The engineer will evaluate the subgrade to determine if EBS Excavation is required.

If the engineer requests, provide loaded trucks and run the subgrade as the engineer directs to confirm yielding areas. Perform EBS Excavation in yielding areas as directed by the engineer.

C.2 Excavation Below Subgrade

Excavate materials as directed by the engineer. Remove deposits of frost-heave material, unstable silty soils, wet and unstable soil, material salvaged from old road cores in marshes, topsoil containing considerable amounts of humus or vegetable matter, rocks, or other undesirable foundation material to the depth below finished grade as the engineer directs.

Compact, or prepare otherwise as required, the existing ground within the roadway foundation as necessary to support the roadway and attain the specified density.

Dispose of all excavated materials offsite at no expense to the department. Locate disposal sites outside the right-of-way and comply with all regulations relating to disposal of solid waste. Ensure that disposal sites are neatly constructed. In performing these operations, do not create a nuisance or cause pollution or siltation of natural watercourses, streams, lakes, wetlands, or reservoirs. Obtain written permits for disposal from the owner of the property where placing the material, unless disposing of the material at a licensed waste disposal operation. Furnish permits, or copies of permits, to the engineer before disposal. Do not deposit waste in wetlands.

C.3 Temporary Drainage

During construction, slope and drain the excavation bottoms to prevent water accumulation. If it is necessary in the prosecution of the work to interrupt existing surface drainage, sewers, or under drainage, provide temporary drainage until completing permanent drainage work.

D Measurement

The department will measure EBS Excavation by the cubic yard acceptably completed as computed using the method of average end areas, with no correction for curvature.

The department will not measure for payment materials excavated in forming benches or steps in preparing the foundation for embankments placed on slopes.

The department will not measure for payment materials excavated to remove frost from newly constructed embankments or cut subgrades unless directed by the engineer.

If undercutting designated slopes to provide for placing topsoil or salvaged topsoil, the undercut is incidental to the Topsoil Special 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.0035.002	EBS Excavation	CY

Payment for EBS Excavation is full compensation for performing excavation below subgrade after receiving engineer approval; for the satisfactory disposal of all resulting material offsite; for obtaining and furnishing copies of permits; for furnishing, placing, and removing all temporary drainage installations; and for providing loaded trucks and running them on the subgrade to confirm yielding areas.

The department will only pay for engineer-approved EBS Excavation to correct problems beyond the contractor's control. Work performed under standard spec 105.3 to correct unacceptable work is the contractor's responsibility.

ASP-5 will be applied to this item. The Fuel Usage Factor is 0.29.

63. EBS Backfill, Item SPV.0035.003.

A Description

This special provision describes backfilling EBS Excavation with breaker run. Areas of backfilling in locations of existing topsoil removal to be paid under Roadway Embankment.

B Materials

Furnish all materials according to standard spec 311.2 and as hereinafter provided.

C Construction

Place breaker run where EBS Excavation was performed or as the engineer directs. Compact breaker run using standard compaction conforming to standard spec 301.3.

D Measurement

The department will determine weight or volume, adjust for moisture, and convert between weight and volume as specified in standard spec 301.4.

The department will measure EBS Backfill by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.003	EBS Backfill	CY

Payment for EBS Backfill is full compensation for providing and compacting breaker run in areas of EBS Excavation.

The department will only pay for EBS Backfill at engineer-approved EBS Excavation locations. Work performed under standard spec 105.3 to correct unacceptable work is the contractor's responsibility.

The department will not pay for EBS Backfill to replace materials excavated to remove frost from newly constructed embankments or cut subgrades.

64. Temporary Stone Ditch Checks, Item SPV.0060.001.

A Description

Furnish and install temporary stone ditch checks; clean and maintain ditch checks as shown on the plans or as directed by the engineer, and as hereinafter provided. This item also includes the removal and disposal of the ditch checks as directed by the engineer.

B Materials

Conform to standard spec 606.2.1 using the following gradation:

INCHES	VOLUME OCCUPIED BY STONES
>8	0%
4-6	50% - 90%
<2	5% or less

Material shall be visually inspected and approved by the engineer.

C Construction

Place stone ditch checks immediately after shaping of the ditches or slopes are completed. Place stone checks at right angles to the direction of flow and construct according to the details shown in the plans.

Remove sediment from behind the stone ditch checks when it has accumulated to one half of the original height of the dam. Perform cleaning according to standard spec 628.

D Measurement

The department will measure Temporary Stone Ditch Checks by each item, 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.0060.001	Temporary Stone Ditch Checks	Each

Payment is full compensation for furnishing, installing, maintaining, and cleaning; disposal of sediment; and for removing temporary ditch check.

Restoration of the area after ditch check removal shall be paid for with restoration items included in the contract.

(NER14-1104)

65. Sand Bags, Item SPV.0060.002.

A Description

This special provision describes the construction of dikes or barriers with sand filled bags as shown on the plans.

B Materials

Provide bags made of canvas, burlap, nylon or other approved material. Use bags that will contain a minimum of one half cubic foot of sand, be of one size and shape and be securely closed.

Use sand that conforms to the standard spec 501.2.5.3 except that standard spec 501.2.5.3.4 shall be deleted. The maximum size of particle shall pass a No. 4 sieve.

C Construction

Remove and dispose of the sand bags and all surplus material upon completion of its use under this contract.

D Measurement

The department will measure Sand Bags as each individual sand bag placed and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Sand Bags	EACH

Payment is full compensation for furnishing and installing sand filled bags; for all excavation; for removal and disposal of the sand bags and all waste or surplus materials, including eroded materials and for shaping and restoring the area.

Any required topsoiling, fertilizing, seeding or mulching will be paid for under the applicable bid item.

SER-207.1 (20101021) EROC

66. Temporary Sediment Traps, Item SPV.0060.003.

A Description

Design, construct, and maintain temporary sediment traps used to intercept sediment-laden runoff and to retain the sediment.

B Materials

Materials shall be according to Wisconsin DNR Technical Standard 1063 (Sediment Trap).

C Construction

Design, construct, maintain and remove temporary sediment traps following the guidance in Wisconsin DNR Technical Standard 1063 (Sediment Trap) and according to the detail shown in the plans, and at the direction of the engineer. Locations as directed by the engineer. General locations requiring Temporary Sediment Traps are upstream of streams and wetlands which receive sediment laden runoff. Install prior to major grading operations. Do not remove until directed by the engineer.

D Measurement

The department will measure Temporary Sediment Traps as each individual sediment trap, installed according to the contract 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.0060.003	Temporary Sediment Traps	Each

Payment is full compensation for design; furnishing and maintaining each basin; for removal of the basin; and for stabilization of disturbed area after removal.

67. Section Corner Monuments, Item SPV.0060.009.

A Description

Coordinate with Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner (Public Land Survey System- PLSS) monument.

B Materials

SEWRPC will provide a pre-cast concrete monument or brass disk to be used to mark the PLSS corner.

Furnish base aggregate dense materials that conform to standard spec 305 and concrete, asphalt, topsoil or other materials depending on the surface surrounding the corner.

C Construction

SEWRPC will perpetuate existing section corner monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process. The engineer will contact SEWRPC at (262) 953-4295 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner monument perpetuation.

Contractor must excavate and completely remove the existing monument. contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. Contractor is responsible to coordinate the materials and methodology to complete the construction of the surface surrounding the monument. This may include but is not limited to a 2' x 2' "box out" or 24" diameter core hole in concrete, asphalt pavement/paving rings, coring to facilitate poured in place monuments, topsoil, seed and mulching or other materials or methodologies as agreed to by the contractor and SEWPRC.

Contact Information:

Attn: John Washburn
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607
Phone (262) 547-6721
Cell (262) 953-4295
Fax (262) 547-1103
E-mail: jwashburn@sewrpc.org

D Measurement

The department will measure Section Corner Monuments 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.0060.009	Section Corner Monuments	Each

Payment is full compensation for all excavating; removal of existing monument, for placing and compacting backfill material; for disposing of surplus materials; for concrete or asphalt material, finishing of roadway or other surfaces, for all coordination with SEWRPC; and for furnishing all labor, tools, and equipment.

SER-621.1 (20170530)

68. Connect Drain Tile, Item SPV.0060.012.

A Description

This special provision describes connecting existing drain tiles to proposed structures or proposed storm sewer pipes.

B (Vacant)

C Construction

Identify drain tile invert elevations through Drain Tile Exploration. Connect the exposed drain tile with the appropriate coupling, concrete collar or by means approved by the engineer to reestablish the connection. Use concrete masonry for concrete collar conforming to standard spec 520.2.4. Ensure that the connection does not negatively impact the current flow capacity of the drain tile.

D Measurement

The department will measure Connect Drain Tile as each connection, acceptably completed

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.012	Connect Drain Tile	Each

Payment is full compensation for performing all work; removing seals, end walls and concrete collars, providing all materials, couplings, concrete collars. Any additional pipe or materials required to connect the drain tile shall be considered incidental to this bid item. The new pipe that restores drainage will be paid separately under their respective bid items.

69. Manholes 2-FT Diameter, Item SPV.0060.013.

A Description

Construct Manholes 2-FT Diameter as shown on the plans, or as directed by the engineer, and according to standard spec 611 and as hereinafter provided.

B Materials

Materials shall be according to standard spec 611.2.

C Construction

Construction shall be according to the plans and with standard spec 611.3.

D Measurement

The department will measure Manholes 2-FT Diameter as each individual manhole acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.013	Manholes 2-FT Diameter	Each

Payment shall be according to standard spec 611.5.

70. Manholes 9-FT Diameter, Item SPV.0060.014.

A Description

Construct Manholes 9-FT Diameter as shown on the plans, or as directed by the engineer, and according to standard spec 611 and as hereinafter provided.

B Materials

Materials shall be according to standard spec 611.2.

C Construction

Construction shall be according to the plans and with standard spec 611.3.

D Measurement

The department will measure Manholes 2-FT Diameter as each individual manhole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.014	Manholes 9-FT Diameter	Each

Payment shall be according to standard spec 611.5.

71. Pavement Cleanup Project 2704-00-75 Item SPV.0075.001.

A Description

This special provision describes cleanup of dust and debris from pavements as the engineer directs.

B Materials

B.1 Pavement Cleanup

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Use vacuum equipment with a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified in this special provision or approved by the engineer.

C Construction

C.1 Surveillance

Provide daily surveillance of active haul routes to identify if material is being tracked from the jobsite. Document the condition of the roads and all sweeping recommendations in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities.

C.2 Pavement Cleanup

Keep all pavements, sidewalks, driveways, curb lanes and gutters within the project boundaries, free of dust and debris generated from all activity under the contract.

Conduct sweepings as the engineer directs or approves, to eliminate dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Coordinate with engineer to determine deadlines for responding to emergency sweeping requests and cleaning up spillage and material tracked to/from the project.

Skid steers with mechanical power brooms may only be used on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer. Do not dry sweep. Ensure all broomed equipment used for sweeping has a functioning water bar.

D Measurement

The department will measure Pavement Cleanup (Project) by the hour acceptably completed and only with prior approval by the engineer.

Tickets shall include:

- Date
- Company
- Operator name
- Equipment make/model
- Routes swept
- Total hours

Total hours shall be to the nearest 0.25 hour that work under this item was performed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.001	Pavement Cleanup Project 2704-00-75	HR

Payment is full compensation for daily surveillance; preparing and submitting the daily surveillance report with hourly metered tickets; mobilization; sweeping; and disposing of materials.

sef-104-006 (20170323)

72. Heavy Duty Silt Fence, Item SPV.0090.001.

A Description

This special provision describes the delivery, installation, maintenance, and removal of Heavy Duty Silt Fence. Install fence as directed by the engineer. Do not remove fence until directed by the engineer.

B Materials

Provide Heavy Duty Silt Fence consisting of a composite of woven wire fence fabric, posts, geotextile, fasteners, and to be assembled by the contractor. Woven wire fence fabric shall be a standard field fence type a minimum of 4 feet high, a maximum mesh spacing of 6-inches and minimum 14-$^{1}/_{2}$ gauge wire.

Provide “studded tee” or “U” type metal posts with a sizes according to the construction detail and a minimum weight of 1.3 lb/ft.

Provide geotextile fabric meeting the following requirements

Property	Unit	Test Method	Minimum Average Roll Value
Grab Tensile Strength	LB.	ASTM D4632	380
Grab Tensile Elongation	%	ASTM D4632	50
Puncture Strength	LB.	ASTM D4833	240
Trapezoid Tear Strength	LB.	ASTM D4533	145
Apparent Opening Size	U.S. Standard Sieve	ASTM D4751	170 (0.09 mm)
Permittivity	sec^{-1}	ASTM D4491	0.7
Water Flow Rate	$Gal/min/ft^2$	ASTM D4491	50
UV Resistance after 500 hours	% strength retained	ASTM D4355	70

Furnish a manufacturer's Certified Report of Test or Analysis that the geotextile fabric delivered for use in the work meets the above requirements to the engineer at least 15 days prior to use in the work. Provide geotextile fabric bearing markings to clearly identify it with the applicable test report furnished to the engineer.

Supply material in 15'9" wide rolls and cut in half.

C Construction

Install the Heavy Duty Silt Fence as directed by the engineer and shown on the attached detail drawing. Space ties and anchors to adequately support system. Include or add acceptable guy lines, where required, for additional support.

Maintenance work, when required, will be specified on erosion control orders. Maintenance includes replacement of failed 12GA wire ties; re-anchoring of metal posts (standing lying sections back-up); entrenchment of the bottom fabric; and guy line repairs, if required. Geotextile fabric and woven wire fence fabric replacement not required for maintenance.

D Measurement

The department will measure Heavy Duty Silt Fence by the linear foot, acceptably completed. The department will measure along the base of the fence, center-to-center of end post, for each section of fence.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Heavy Duty Silt Fence	LF

Payment is full compensation for all furnishing, assembling, erecting, maintaining, and removal of the silt fence; for anchoring the silt fence.

73. Pipe Underdrain 6-Inch Special, Item SPV.0090.002.

A Description

This special provision describes providing necessary subsurface drainage by constructing trenches, placing the required geotextile fabric, installing the designated pipes or drainage devices, connecting the wrapped underdrain to receiving structures, providing cored connection holes, back-plastering and or mortaring connections to storm sewer structures (both on the external and internal sides of the receiving structure), providing and installing PVC or HDPE fittings, and caps or plugs ,for excavating, plowing, backfilling the trenches with the specified backfill material according to standard spec 310, 612 and 645, salvaging; disposing of surplus material; and restoring the work site as shown on the plans and details, and as hereinafter provided.

B Materials

B.1 Base Aggregate

Use only base aggregate open graded conforming to standard spec 310.2.

B.2 Geotextile Fabric

Utilize geotextile fabric consisting of Type DF Schedule A and conforming to standard spec 645.2.4. Completely wrap the installation trench with geotextile fabric.

C (Vacant)

D Measurement

The department will measure Pipe Underdrain 6-Inch Special by the linear foot, acceptably completed. The department will measure along the centerline of the pipe, center to center of junctions and fittings.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.002	Pipe Underdrain 6-inch Special	LF

Payment is full compensation for providing, handling, and placing all materials, including pipe, base aggregate open graded, geotextile fabric Type DF Schedule A, providing cored connections, making all necessary connections to the receiving structures, performing back-plastering and or mortaring of wrapped underdrain connections to storm sewer structures, providing and installing all fittings, and caps or plugs; for furnishing all excavating, plowing, and re-compacting, salvaging; disposing of surplus material; and restoring the work site.

74. Temporary Water Diversion Culvert C-51-84, Item SPV.0105.001.

A Description

This special provision describes providing for and removing the temporary water diversion method and developing an approved plan for the flow of Hoods Creek and adjacent 84-Inch storm sewer pipe during the installation of Structure C-51-84 as hereinafter described.

B Materials

Follow the applicable sections of the WisDOT Standard Specifications for all materials utilized under this item, as directed by the engineer. Provide evidence that items meet specifications and/or certifications prior to use of such items if requested by the engineer.

C Construction

Provide the engineer with a staged plan indicating acceptable methods to handle water during construction in and next to Hoods Creek for both Hoods Creek and the existing 84-Inch pipe water. Submit this plan as part of the ECIP and meet the requirements of standard spec 107.20.

Storage of materials or equipment on public property, outside of the normal roadway limits of Braun Road, in the vicinity of Hoods Creek, is not permitted.

(1) Alterations to the suggested methodologies of water diversion as noted below may be acceptable. Such alterations should be clearly spelled out in the Erosion Control Implementation Plan (ECIP) for approval by WisDOT and the Wisconsin Department of Natural Resources prior to construction.

(2) *Method #1*: Divert the existing flow through a temporary open channel lined with polyethylene sheeting or other approved plastic. The bottom of the channel shall have a 6-inch depth of coarse aggregate #2 stone. Divert flow into the temporary open channel utilizing barriers made of non-erodible materials, such as rock bags and polyethylene sheets, to prevent siltation into the live stream. Details of the temporary open channel and the non-erodible barrier system shall be detailed in the contractor's ECIP, for approval by the engineer.

(3) *Method #2*: Divert the existing flow through a temporary culvert pipe utilizing barriers made of non-erodible materials, such as rock bags and polyethylene sheets, and a channel comprised of plastic and #2 stone as described under Method #1. Details of the temporary culvert pipe, the temporary channel, and the non-erodible barrier system shall be detailed in the contractor's ECIP, for approval by the engineer.

The following values are provided for the contractor's use in sizing a temporary culvert pipe for Hoods Creek water:

Structure C-51-84
Q2 = 212 cfs
Q5 = 314 cfs

(4) *Method #3*: Dam the flow using non-erodible materials, such as rock bags and polyethylene sheets, and pump the water across the roadway. Details of the damming and pumping system shall be detailed in the contractor's ECIP, for approval by the engineer. The water must be treated to remove suspended solids before it is allowed to enter any waterway or wetland. Provide a settling basin, or other suitable means approved by the engineer, with sufficient capacity and size to provide an efficient means to filter the water from the dewatering operation before it is discharged back into the stream as provided in the Standard Specifications and these special provisions. Direct discharge into the stream will not be permitted. Saturated sediment shall be dewatered in an upland location within a dewatering device. Treatment practices may include the use of a polymer in conjunction with the dewatering mechanism, as approved by the engineer.

(5) Remove the temporary open channel, temporary culvert pipe, or temporary barriers after flow through the new box culvert structure is established. Restore the area outside of the proposed roadbed and slopes to natural surrounding conditions and elevations.

D Measurement

The department will measure Temporary Water Diversion Culvert (structure) as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.001	Temporary Water Diversion Culvert C-51-84	LS

Payment is full compensation for developing a diversion plan, providing, installing, removing, and disposing of all materials used to divert flow, maintaining such materials during use, all excavation and backfill required, pumping activities, treatment of water, and for restoration of the area to original conditions, unless shown otherwise in the project plans for Hoods Creek water and existing 84-Inch pipe water

75. Survey Project 2704-00-75, Item SPV.0105.002.

A Description

This special provision describes modifying standard specs 105.6 and 650 to define the requirements for construction staking for this contract. Conform to standard specs 105.6 and 650 except as modified in this special provision.

Replace standard spec 650.1 with the following:

This section describes the contractor-performed construction staking required under individual contract bid items to establish the horizontal and vertical position for all aspects of construction including**:**

- storm sewer
- subgrade
- base
- curb
- gutter
- curb and gutter
- curb ramps
- pipe culverts
- drainage structures
- structure layout
- bridges
- all retaining wall layout
- pavement
- pavement markings (temporary and permanent)
- barriers (temporary and permanent)
- overhead signs
- freeway and local street lighting
- electrical installations
- supplemental control
- slope stakes
- detention ponds
- traffic signals
- ITS
- FTMS
- paths
- utilities
- conduit
- landscaping elements
- installation of community sensitive design elements
- traffic control items
- fencing
- multi-use path

B (Vacant)

C Construction

Supplement standard spec 650.3.1 (5) with the following:

Global positioning methods will not be allowed to establish the following:

1. Structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb and gutter vertical locations.
4. Concrete barrier vertical locations.
5. Storm Sewer layout horizontal or vertical locations, including structure centers, offsets, access openings, rim and invert elevations.

Replace standard spec 650.3.1(6) with the following:

(6) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes:

- Raw data files
- Digital stakeout reports
- Control check reports
- Supplemental control files (along with method used to establish coordinates and elevation)
- Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Add the following to standard spec 650.3.3.3.6.2 as paragraph (4):

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

D Measurement

Replace standard spec 650.4 with the following:

(1) The department will measure Survey Project (project ID) as a single lump sum unit of work, acceptably completed.

E Payment

Replace standard spec 650.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.002	Survey Project 2704-00-75	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract and for adjusting stakes to ensure compatibility with existing field conditions. The department will not make final payment for this item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. Re-staking due to construction disturbance and knock-outs will be performed at no additional cost to the department.

sef-650-005 (20180104)

76. Water Tap Service and Irrigation System, Item SPV.0105.730.

A Description

This special provision describes furnishing the water tap service and a fully functioning irrigation system as shown on the plans and includes, but is not necessarily limited to: electrical service, automatic controller, remote control valves, manual valves, pressure reducing valves, flow sensors, reduced pressure zone backflow prevention assembly, lockable enclosure, sleeves, mainline, laterals, quick couplers, valve boxes, heads, nozzles, piping and tubing, etc. and the proper execution of the work, including trenching, backfilling, equipment installation, testing, and adjustment.

B Materials

Provide equipment that is listed, approved or rated by a nationally recognized testing and rating bureau of the recognized manufacturers association responsible for setting industry standards. All electrical equipment and apparatus be U.L. listed. All materials will be new and of the quality specified.

Multiple brands or manufacturers may be utilized to create the irrigation system but provide the same brand or manufacturer for each specific application/component.

Each major component of equipment shall have the manufacturer’s name, address, catalog and serial number permanently attached in a conspicuous place.

Acceptable irrigation manufacturers shall be, Rainbird, Hunter, or approved equal. Substitutions will only be allowed if, in the opinion of the engineer, it is deemed to be equal or an upgrade and offers the same features that were originally specified.

B.1 Submittals

Before any irrigation system materials are delivered to the job site, submit to the engineer a complete list of all irrigation system materials proposed to be furnished and installed. Show manufacturer’s name and catalog number for each item, furnish complete catalog cuts and technical data, and furnish the manufacturer’s recommendations as to method of installation.

Provide at least one person who will be present at-all-times during execution of this portion of the work, and who will be thoroughly familiar with the type of materials being installed, and material manufacturer’s recommended methods of installation, and who will direct all work performed under this section.

B.2 Certification

Contractor to hold following certification(s) from the Irrigation Association (IA):

- Certified Irrigation Designer (CID)
- Residential or Commercial
- Certified Irrigation Contractor (CIC)

B.3 Water Meters

The City of Racine will provide the 2” water meter. Provide a 3-day business notice by contacting Mr. Mike Wurster, Racine Water Department, 100 Hubbard Street, Racine, WI 53402, (262) 636-9186, prior coordinating arrangements to pick up.

B.4 Backflow Prevention

Provide a 2-inch reduced pressure zone assembly consisting of an internal pressure differential relief valve located in a zone between two positive seating check modules with springs and silicone seat discs. Provide replaceable seats and seat discs in both check modules and the relief valve.

Threads or screws should not be exposed to the waterway exposed to line fluids. Service for all internal components to be through a single access cover secured with stainless steel bolts. Assembly to include two resilient seated isolation valves; four resilient seated test cocks and an air gap drain fitting. Conform assembly to meet the requirements of USC Manual 8th Edition, ASSE Std. 1013, AWWA Std. C511, CSA B64.4

B.5 Polyvinyl Chloride (PVC) Pipe Sleeves

Pipe sleeves to be schedule 40 PVC pipe.

B.6 Polyvinyl Chloride (PVC) Mainline Pipe

Provide mainlines and transmission lines constructed of SDR-21 200psi PVC.

All pipe to be extruded from virgin materials. The pipe is to be homogeneous throughout and free from visible cracks, holes, foreign materials, blisters, deleterious wrinkles, and dents.

B.7 Polyvinyl Chloride (PVC) Fittings

Provide molded fittings conforming to ASTM D2241, ASTM D2466, or ASTM D1784 Schedule 40 PVC of the same material as the pipe and suitable for solvent weld or screwed connections. S-80 PVC fittings may be used and may thread or solvent weld. Only schedule 80 fittings shall be threaded.

Solvent weld PVC fittings shall be produced from PVC Type 1, cell classification 1245B. All solvents and cements shall be that recommended by the manufacturer.

Provide S-80 TOE nipples with S-80 couplings for plastic to metal connections. Use plastic male adapters and hand tighten the male adapter, plus one turn with a strap wrench. Use teflon tape and teflon paste joint compound. No oil-based products permitted.

Plastic Saddle and flange fittings will not be permitted.

B.8 Polyethylene Lateral Pipe

Provide polyethylene lateral pipe constructed of virgin, high impact, having a minimum 100psi working pressure rating, and continuously and permanently marked with manufacturer’s name, material, size and schedule type. Pipe shall conform to ASTM D2239, SDR 11.5, rated at 100 PSI, National Sanitation Foundation (NSF) approved.

B.9 Polyethylene Lateral Pipe Fittings

Provide polyethylene insert pipe fittings constructed of schedule 40 PVC and conforming with ASTM 2609. 1 ½" and 1 ¼" Diameter pipe shall be secured by means of two (2) stainless steel worm gear clamps or stainless-steel strap clamps.1" Diameter pipe, the pipe and fittings shall be secured with stainless steel pinch clamps or worm gear clamps, including stainless steel screw.

B.10 Risers

Provide risers for stationary spray heads constructed of high density polyethylene plastic pipe ("funny pipe") with spiral barbed ell fittings. Minimum length of "funny pipe" be eighteen inches (18").

B.11 Manual Isolation Valves

Provide isolation valves 3" and smaller as bronze type gate valves. The gate valve shall be 200lb rated, non-shock, solid disc, containing a non-rising stem with treaded ends and a bronze cross handle.

Provide isolation valves 4" and larger meeting AWWA C509-80 standards. Valves shall be resilient seat body and bonnet constructed of cast iron alloy ASTM A126 Class B or Ductile Iron ASTM A536, epoxy coated inside and outside, provide a full diameter waterway, low torque operation, absolute shut-off, and be push-on type valves. Stems to be stainless steel with a cast iron 2" square operating nut. Valves to be 200psi CWP Nibco P619-RW or approved equal.

Provide valves sized to match pipe size.

B.12 Electrical Remote-control Valves and Master Valve

Provide electric remote-control valve that are of a normally closed, 24 VAC 50/60 Hz (cycles/second) solenoid actuated globe/angle pattern design and adhering to the following:

- Valve pressure rating to be not be less than 150 PSI.
- Valve bodies and bonnets shall be constructed of high impact, weather resistant PVC with stainless steel screws.
- Valves shall have manual open/close control (internal bleed) for manually opening and closing the valve without electrically energizing the solenoid. The valve's internal bleed shall prevent flooding of the valve box.
- Valves shall house a fully-encapsulated, one-piece solenoid. The solenoid shall have a captured plunger with a removable retainer for easy servicing, and a leverage handle for easy turning. This 24 VAC 50/60 Hz solenoid shall open with 19.6 VAC minimum at 150 psi. At 24 VAC, average inrush current shall not exceed 0.41 amps. Average holding current shall not exceed 0.14 amps
- The valve shall have a flow control stem for accurate manual regulation and/or shut-off of outlet flow. The valve must open or close in less than 1 minute at 150 PSI, and less than 30 seconds at 20 PSI (1,38 bar).
- The valve construction shall provide for all internal parts to be removable from the top of the valve without disturbing the valve installation. The body shall have a removable 0-ringed plug for installation in either globe or angle configuration.

B.13 Valve Boxes

Provide valve boxes creating durable, rigid enclosures for valves or other irrigation system components requiring subsurface protection for installation and maintenance and designed specifically for use as irrigation valve boxes.

Provide valve boxes and covers constructed of structural foam HPDE resin that is resistant to ultra-violet light, weather, moisture and chemical action of soils.

B.14 Sprinkler Heads

Provide standard spray bodies designed to provide uniform coverage over entire area of spray shown on drawings at available water pressure and as follows:

- Pop-Up spray body for shrub or small turf areas (2.5-30 feet) spacing: maximum 70 psi. Irrigation spray body specifications include but are not limited to:
  - The spray body, stem, nozzle, and screen constructed of heavy-duty and ultra-violet resistant plastic.
  - Heavy-duty strong stainless steel retract spring for positive pop-down.
  - Pressure-activated, co-molded soft elastomer wiper seal ensures a positive seal without excess “flow-by” which enables more heads to be installed on the same valve.
  - Precision controlled flush at pop-down to clear debris from the unit, to assure positive stem retraction in all soil types.
  - Ratchet mechanism to allow easy nozzle pattern alignment without tools.
  - Internal check valve to prevent low head drainage of up to 14 feet (4.3 m); 6 psi (0.4 bar).
  - Markings printed on the top of the cap to indicate the spray body includes an internal check valve.
  - Sealing device to be an integral part of the pop-up stem.
  - Removable through the top of the spray body.
  - Seal against the downstream end of bottom inlet.
  - Create no more than 1 psi (.07 bar) pressure drop at the maximum rated flow.
  - Include an internal rubber check valve seal washer.
  - Include a stronger retract spring to accommodate elevations changes up to 14 feet.
  - Prevents drainage from spray bodies at lower elevations.
  - Retains water in lateral pipes to reduce the wear on system components by minimizing water hammer during start-up.
  - 6” body height; 4” pop-up height.
  - Operating range of 2.5 to 24 feet.
  - Operating pressure range of 15 to 70 psi.
  - Exposed surface diameter 2 ¼”.
  - Flow by rating of 0 at 8 psi or greater, 0.1 GPM
  - ½” (15/21) NPT female threaded bottom and side inlets.
  - Removable from the top without special tools in order to provide quick and easy flushing and maintenance of the sprinkler for all spray body components.
  - Pre-installed flush plug for the spray body.
  - Prevent the plug from debris from clogging the sprinkler during installation and allow for the system to be flushed before nozzling.
  - Plug color bright orange in color and constructed of polypropylene material.
  - Acceptable irrigation manufacturers are, Rainbird, Hunter, or approved equal with a five-year manufacturer’s warranty.

B.15 Nozzles and Nozzling

Provide dual orifice fixed arc spray nozzles for both in-close watering and standard pattern watering that produces spray patterns from two orifices to form a continuous water stream resulting in coverage where gaps are eliminated so the entire watering area is more uniformly covered at the available water pressure and as follows:

- Constructed of ultra-violet resistant plastic.
- Contain a stainless-steel flow and radius adjustment screw allowing up to 25% radius reduction.
- The lower orifice to be a labyrinth type orifice to assure correct distribution of water close to the spray body.
- Nozzles to have a matched flow and precipitation rate between sets and other matched precipitation rate fixed spray nozzles up to 15 feet.
- Provide nozzles designed for use on spray bodies with an exposed surface diameter of 2 1/4“ and shrub adapter fittings.
- Provide nozzles to include a removable mesh screen to protect the nozzle against debris and clogging.
  - .02” x .02” screen for part-circle patterns.
  - .35” x .45” screen for full-circle pattern.
- The angle of trajectory should be 12 degrees (0.2 rad).
- Nozzle to have a operating pressure range of 15 to 30 psi.
- Nozzle to have a blue colored marking on top of nozzle for easy identification.

Provide high efficiency MP Rotators with multi-stream and multi-trajectory rotary nozzles designed with a viscous drive for rotation and matched precipitation rates across any arc and radius and constructed with the follow:

- Female threads for installation on male threaded pop-up sprinklers.
- Filter screen to prevent internal system debris from entering the nozzle.
- Color-coded for easy field identification.

B.16 Automatic Irrigation Controllers

Irrigation controller specifications include but are not limited to:

Provide a hybrid type controller that is microelectronic circuitry capable of fully automatic or manual operation with a two-wire path decoder-based control system

House the controller in a weather resistant stainless-steel pedestal cabinet with a key-locking cabinet door suitable for outdoor installation.

Provide decoders of the same hardware as the controller.

Adjust output power for the decoders from the controller

Inrush and holding current values to be adjustable from the controller.

Provide controller with user configurable formats for date, time, and units.

Incorporate a base station module capacity of 50 stations as well as two additional expansion slots capable of receiving station modules to create a controller capacity of 200 stations to the controller.

Provide each expansion module with a capacity to increase controller capacity up to 75 additional stations.

Provide hot swappable modules that can be installed while in operation with the dial in any position and in any open module slot.

Provide all stations that have the capability of independently obeying or ignoring the weather sensor as well as using or not using the master valve.

Provide controller with a weather sensor override switch.

The weather sensors to include but are not limited to:

- Rain sensor for monitoring rainfall
- Provide controller that is compatible with a control device that enables weather-based management for the irrigation controller. Station timing to be from 0 minutes to 12 hours.
- Provide controller with a seasonal adjustment feature adjustable from 0% to 300% in increments of 1% and by each individual program.
- Provide controller with a monthly seasonal adjustment feature adjustable from 0% to 300% by month in increments of 1%. Station timing with seasonal adjustment must be from 1 second to 16 hours.
- Provide controller with 4 separate and independent programs which can have different start time, start day cycles and station run times. Each program must have up to 8 start times per day for a total of 32 possible start times per day. The programs must allow to overlap operations based on

user-defined settings which control the number of simultaneous stations per program and total for the controller

- Provide controller with a feature which allows the user to define up to eight 24 VAC, 7VA solenoid valves to operate simultaneously per program and total for the controller, including the master valve/pump start circuit.
- Provide controller with the capability of having a normally open or closed master valve programmable by station.
- Provide controller with a programmable station delay by program to allow for water well recovery or slow closing valves.
- Provide controller with an electronic, diagnostic circuit breaker that must sense a station with an electrical overload or short circuit and must bypass that station and continue operating all other stations.
- Provide controller with a 365-day calendar with leap year intelligence. The leap year intelligence allows the use of “Odd” or “Even” day watering schedule without changing the date on leap years. The calendar to include a permanent day off feature that allows a day(s) of the week to be turned OFF on any cycle (Custom/Odd/Odd31, and Cyclical). A day set to “Permanent Off” must override the normal repeating schedule and not water on the specified day(s) of the week.
- Provide a controller with a calendar day off feature allowing the user to select up to 5 dates up to 365 days in the future when the controller will not start programs.
- Provide a controller capable to incorporate a rain delay feature allowing the user to set the number of days the controller should remain off before automatically returning to the automatic operation mode.
- Provide a controller compatible to have a cycle and soak water management software which is capable of operating each station for a maximum cycle time and a minimum soak time to reduce run-off. The maximum cycle time will not be extended by seasonal adjustments.
- Provide controllers with default operation set by station number.
- Provide a controller capable to provide an option to assign station priorities to determine the order in which stations will operate.
- Provide a controller capable to ignore the station number sequence and instead operate the highest priority stations first and the lower priority stations last. Station priorities will be utilized by the flow manager feature if the flow manager feature is enabled.
- Provide a controller with a water window for each program. The water window function sets the allowed start and stop time where watering is allowed. If watering cannot be completed by the time the water window closes, the stations with the remaining time are paused and watering automatically resumes when the next water window opens.
- Provide controller with a flow manager feature that will provide real-time flow, power, and station management. The flow manager must manage the number of stations operating at any point in time based on water source capacity, station flow rate, number of valves per station, station priorities, and user defined simultaneous stations per program and for the controller.
- Provide controller with a flow sensor module option which adds flow sensing functionality. The flow sensor module input should be capable to accept a sensor decoder input from 1-5 flow sensors with no flow scaling device required. The flow sensor module should include a flow utility which learns the normal flow rates of each station. Each time a station runs the flow utility should compare the current real-time flow rate to the learned rates and take user defined actions if high flow, low flow, or no flow is detected. The flow utility should automatically determine the location of the flow problem and isolate the problem by turning off the affected station or master valve. The flow utility should be compatible with both normally closed and open master valves. The flow utility should manage hydraulic demand, making full use of available water. A manual master valve water window should be provided to coordinate daytime manual watering with the flow sensing. The water windows should offer programmable days of the week and manual watering additional flow rate. The alarm light should prompt the user to select the alarm softkey to review the alarm condition(s)
- Provide controller that is compatible with a specified central control system utilizing specialized network communication cartridges. The cartridge should provide communication with the central control computer and other controllers via a variety of communication options (Direct Connect Cable, Phone, GPRS/Cellular, Ethernet, WIFI, Radio, and specialized communication cable). The central control system should provide remote computer control of the controller providing automatic or manual program adjustments.
- Provide controller that will offer an optional metal wall-mounted lockable cabinet and/or pedestal.

- Provide controller that will have multiple size wiring knockouts located on the bottom and the back side of the case to adapt to a wide variety of wiring applications, to facilitate installation and provide a clean professional look.
- The controller door and front panel should be removable to allow the case to be mounted to a wall.
- Provide controller that has a removable, programmable front panel for conveniently programming the controller away from the installation site or for teaching irrigation scheduling.
- Provide controller capable of a removable programmable front panel that will use a 9-volt battery.
- Provide a controller that include non-volatile (100-year) program memory to maintain the irrigation schedule indefinitely during a power outage.
- Provide a controller that can operate on 120 VAC± 10% at 60Hz with a standard 10kV surge protection. Include a diagnostic self-setting circuit breaker that identifies a valve or wire fault and continues to water operable stations. Provide a reset button to reset the controller in the case of micro-controller "lock-up" due to power surges or frequent interruption to the power supply. Provide decoders with fully encapsulated creating a completely waterproof seal. The decoders are recommended to be placed in a valve box but capable of direct burial. Conform the decoder electrical input to:

- Nominal Voltage: 34 Vpp (24V AC) from two wire line
- Minimum Voltage: 21 Vpp (15V AC)
- Maximum Voltage: 36 Vpp (25V AC)
- The maximum 14Ga. cable run be:
  - Star: 2.4 miles
  - Loop: 9.6 miles

Maximum Critical Path Lengths for 2-Wire Paths

Nominal Wire Size	Ohms per 1000' or Ohms per Km (per conductor) Miles	Max. Length For Critical Path			
		Star		Loop	
		Km	Miles	Km	Miles
2.5 mm2	7.5 0hms/Km	3.00	1.86	12.00	7.46
14 AWG	2.58 0hms/1000'	2.66	1.65	10.63	6.61
12 AWG	1.62 0hms/1000'	4.23	2.63	16.93	10.52

- The decoder to solenoid wires to have a maximum electrical resistance of 3 ohms.
- The maximum decoder/solenoid 14Ga. cable run to be a maximum of 456 feet.
- Wiring for the decoders to be a specified double jacketed wire.
- The environment be:
  - Working Range: 32° to 122° F (0° to 50° C)
  - Storage Range: -4° to 158° F (-20° to 70° C)
  - Humidity: 100%

B.17 Irrigation Wires and Wiring

Wires: Blue to cable, white to solenoid, 2 x 14 – gauge solid copper, UF insulated type

Furnish wires in 2500' reels.

Provide full size wire nuts and moisture proof splice kits for use with three wires maximum for all connections.

B.18 Concrete and Enclosure

Conform concrete for the base of the enclosure to the requirements of standard spec 601. Size concrete pad per the enclosure manufacturer's pad requirements.

Provide lockable and bolted enclosure to concrete pad, and of sufficient size to accommodate the 2" meter, 2" RPZ backflow preventer, 2" flow sensor, and 2" master valve. Provide all piping entering and exiting the enclosure on the inside of the enclosure to prevent tampering with pipes and equipment.

C Construction

C.1 General

Contractor to verify all necessary information regarding exact location of existing underground structures and utilities and mark their location, both at site and on all copies of installation plans.

The contractor accepts responsibility in paying for damages including but not limited to repairing or replacing any buried conduit, cables or piping encountered during installation of irrigation system.

Perform all work with qualified irrigation installers that are knowledgeable and experienced in operations they are performing. Installation methods, procedures and materials to be according to accepted industry practice and standards of manufacturing and contracting associations applicable to the work.

C.2 Permits

Obtain all permits and registrations by any-and-all regulatory agencies or utilities.

C.3 Codes and Standards

Perform all work as specified in this article by conforming to all applicable state and local codes, and to the standards for materials and workmanship of nationally recognized approved agencies and trade associations, i.e., State Administrative Code, General Requirements; State Department of Health, American Society of Engineers, American Society of Testing and Materials; The American Water Works Associations; Plastic Pipe Institute; Valve Manufacture Institute, National Electrical Code, and State of Wisconsin Electrical Code.

C.4 Drawings

Plans and piping shown on scale drawings are intended to indicate size and/or capacity where stipulated, approximate location and/or direction and approximate general arrangement of work, not exact detail or arrangement of construction. Plans are based on equipment scheduled. The contractor is responsible for changes resulting from equipment other than scheduled.

The alignment of the water line, as shown on the drawings, is approximate and may be changed at the time of construction in-order-to avoid trees, shrubs, plantings and/or other obstacles. Where piping is shown on the plans to be under paved areas, but running parallel and adjacent to planted areas, the intention is to install the piping in the planted areas.

After verifying site conditions, if it is found prior to installation that a more convenient, suitable, or workable irrigation system would result by varying or altering the arrangement or location of components indicated on the drawings, the contractor may change the location or arrangement of his work without additional cost, but only after obtaining written approval by the engineer.

Drawings are shown schematically, however, minor variations may occur. Verify locations and any other information critical to placement of devices with the drawings to assure proper installation.

C.5 Field Measurements

Make all necessary measurements in the field to ensure precise fit of items according to the original design.

C.5 Product Handling

Use all means necessary to protect irrigation system materials before, during, and after installation and to protect the installed work and materials of all other trades.

In the event of damage, immediately make all repairs and replacements necessary to the approval of the engineer and at no additional cost.

C.7 Surface Conditions

Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

Verify that trenching may be completed according to the original design and the referenced standards.

In the event of discrepancy, immediately notify the engineer. Do not proceed with installation in areas of discrepancy until all discrepancies have been fully resolved.

C.8 Trenching

Perform all trenching required for the installation of items where the trenching is not specifically described in other sections of these Specifications.

Make all trenches according to OSHA Requirements with sufficient width to provide free working space at both sides of the trench and around the installed item as required for gluing, joining, backfilling, and compacting while minimizing width of trenches.

Where trench excavation is inadvertently carried below proper elevations, backfill with granular backfill conforming to standard specification and at no additional cost.

C.10 Grading and Stockpiling Trenched Material

Use open cut for all trench excavation. During excavation, material suitable for backfilling to be piled in an orderly manner a sufficient distance from the banks of the trench to avoid overloading, and to prevent slides or cave-ins. Remove all material not required for backfill or not suitable for backfill, from the site. Banks of trenches to be kept as nearly vertical as possible and be properly sheeted and braced as may be necessary to prevent caving.

Conform the bottom of the trenches to accurate line and grade and provide uniform bearing and support for each section of the pipe on undisturbed soil, at every point along its entire length. Dug depressions for joints after the trench bottom has been graded, and to the required length, depth and width as required for properly making the particular type of joint specified. Exercise care not to excavate below the depths indicated.

Where rock occurs in trench excavation, the remove rocks to a depth of 6 inches below the established grade line, and to a width of 12 inches greater than the outside diameter of the pipe to be installed in the trench.

Dispose excess material, including rock, broken concrete, bituminous materials, debris, or other materials not suitable for backfill.

C.11 Backfill

Excavation of pipes to be cut to required grade. Provide an accurate grade and uniform bearing throughout the length of the pipe. Backfill will be rock-free spoils not exceeding 6” thickness lifts and mechanically compacted in 6” layers as it is brought up to finish grade.

Backfill over sleeves under pavement to match surrounding granular material.

C.12 Installation of Piping and Sleeves.

Perform all trenching and backfilling as specified by the specifications in this section.

Lay out the piping system as indicated on plans, with adjustments as previously allowed.

Install all mainlines and laterals with 12 inches minimum cover, and a maximum of 18 inches cover, over the pipe.

Support sleeves laid in open trenches uniformly and evenly by undisturbed soil on the trench bottom. Install sleeves with a minimum 24" cover.

Maintain a minimum horizontal and vertical clearance for all lines of 4 inches adjacent pipe from each other, and 6 inches from lines of other trades, except through pipe sleeves. Do not install parallel lines directly over one another.

Carefully inspect all pipe and fittings before installation, removing all dirt, scale, and burrs and reaming as required; install all pipe with all markings up for visual inspection and verification.

Install plastic pipe in a manner so-as-to provide for expansion and contraction as recommended by the manufacturer.

Provide solvent cement recommended by the pipe manufacturer. Install all plastic pipe and fittings as outlined and instructed by the pipe manufacturer Make arrangements with the pipe manufacturer for any field assistance that may be necessary. The contractor is responsible for the correct installation.

Allow solvent-weld joints to set at least 24 hours before pressure is applied to the system on PVC pipe.

Install swing joints on the same side of the pipe as the head. Swing joints may not cross pipe laterally.

All mainline piping to be trenched only.

Vibratory plowing for lateral lines will be allowed.

C.14 Installation of Valves, Valve Boxes, Fittings

Place all fittings, valves, etc. carefully in the trenches as shown on the plans.

Install valve boxes per manufacturers recommendations.

Clearly stamp the station number on the outside cover of all automatic valve boxes.

Install all remote-control valves, manual control valves, zone shut-off valves, ball valves, or globe valves unless otherwise indicated, in valve access box of proper size as required for easy access to the valve.

Place valve boxes with a minimum of 5 feet separation between each valve box.

C.15 Installation of Lawn Sprinkler Heads

Install lawn sprinkler heads where indicated on the plans and in strict accordance with the manufacturer's recommendations.

Along walks and driveways where finished grade is established, set all heads ¼ inch below surface of pavement at time of installation and 1 ½ inches from pavement. Stake all temporary risers.

Set all heads flush with final grade.

For all sprinklers having adjustable nozzles, adjust for proper and adequate distribution of the water over the coverage pattern of the sprinkler.

Tighten all nozzles on stationary pop-up sprinklers or stationary spray heads after installation. For all sprinklers having an adjusting screw, adjusting stem or adjusting friction collars, adjust as required for the proper arc of coverage, radius, diameter and/or gallonage discharge.

Upon completion of maintenance period, reset all lawn sprinkler heads flush with grade and firmly anchor with soil.

C.16 Wire Installation

Install all wiring following current electrical codes and per manufacturer's recommendations.

Provide sufficient slack at each connection to facilitate future service. Provide a 24" wire expansion loop at all changes of pipe direction, wiring at corners, points of connections, and electric valves.

All wire splices are to be made at valve locations in valve boxes.

Locate wire drops in a 10” round valve box. Provide a minimum of 24” coiled and labeled wire.

When more than one valve is operated by a single controller station, provide separate control wire from the controller to each valve, and one valve per box.

Clearly label all control wires, by station, using weatherproof material, both at the controller and at the valve.

C.17 Electrical Services

Contractor shall coordinate with WE Energies to furnish and install a 120/240V, 1PH, 100A service for the irrigation system and according to standard spec 651, 656.2.3 and 656.3.4. Provide a metering pedestal and a lockable 100A fused disconnect switch with 20A fuses. Provide a junction box adjacent to the fused disconnect switch. Junction box to contain a 20A, 1 pole GFI circuit breaker. Provide 2 #12 AWG, 1 #12AWR ground in the RMC to the irrigation controller. Provide a unistrut or similar frame for support of the fused disconnect switch and metering pedestal. Pedestal to be in conformance with the latest edition of the WE Energies Electric, Sewer, and Metering Manual. The cost of the service is incidental to the irrigation system.

C.18 Installation of Automatic Irrigation Controllers

Install field controllers on approved concrete bases in lockable stainless-steel enclosures according to the manufacturer’s recommendations as shown on the drawings. Locate central controller as shown on the drawings.

Install field controllers with manufacturer’s lightning and surge protection.

Install on site lockable disconnects or lockable fuse block and a 110-volt outlet at each controller in a separate lockable water-tight enclosure.

C.19 Winterization Connection

Provide an air hose connection of approved design at all locations called for on the plans so that the entire system can be drained by blowing it out with compressed air.

C.20 Testing and Inspection

Do not allow or cause any of the work in this section to be covered up or enclosed until it has been inspected, tested, and approved by the engineer.

Provide barricades and warning tape as necessary around all open trenches.

Before backfilling the mainline, and with all control valves in place, completely flush and test the mainline and repair all leaks; flush out each section of lateral pipe before sprinkler heads are attached.

Make all necessary provisions for thoroughly bleeding the line of air and debris.

Before testing, fill the line with water for a period of at least 24 hours.

After valves have been installed, test all installed irrigation lines for leaks at a pressure of 150 psi for a period of two hours, with all couplings exposed and with all pipe sections center loaded.

Furnish all necessary testing equipment and personnel.

Correct all leaks and retest until acceptance by the engineer.

C.21 Final Inspection

Thoroughly clean, adjust, and balance all systems.

Demonstrate the entire system to the engineer, proving that all remote control valves are properly balanced, that all heads are properly adjusted for radius and arc of coverage, and that the installed system is workable, clean, and efficient.

C.22 Record Drawings

Dimension to each item listed below from two permanent points of reference (buildings, monuments, sidewalks, curbs, pavement, etc.). Keep day to day locations shown on as-built drawings as the project is being installed. All dimensions noted on drawings must be neat and legible.

Show locations and depths of the following items:

- Point of connection
- Routing of sprinkler lines
- Ball valves
- Sprinkler control valves
- Quick coupling valves
- Routing of control and power wires
- Sprinkler heads
- Other related equipment

C.23 Operations and Maintenance Manuals

Prepare and deliver to the engineer within ten calendar days prior to completion of construction, all required and necessary descriptive material in complete detail and sufficient quantity, properly prepared in four individually bound copies of the operations and maintenance manual. In the manual describe the material installed in sufficient detail to permit operating personnel to understand, operate and maintain all equipment. Include parts lists and related manufacturer information for each equipment item installed. Include the following information in each complete, bound manual:

- Index sheet stating contractor's address and telephone number, duration of guarantee period, list of equipment with names and addresses of local manufacturer representatives.
- Complete operating and maintenance instructions on all major equipment.

In addition to the above maintenance manuals, provide the maintenance personnel with instructions for system operation and show written evidence to the engineer at-the-conclusion-of the project that this service has been rendered.

Delivery record drawings to the engineer upon completion.

C.24 Warranty

Submit manufacturer warranties to the engineer upon substantial completion of work.

Winterize the system in the fall of 2019 and perform spring start-up of the system in 2020 during the normal one year performance bond time frame. Upon re-energizing the system, repair any leaks or breaks and check each head and valve, making any adjustment necessary as part of the one year performance bond. Coordinate these functions in advance with the municipality.

D Measurement

The department will measure each Water Tap Service and Irrigation System as separate single lump sum units, 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.0105.730	Water Tap Service and Irrigation System	LS

Payment is full compensation for all materials, labor, inspection, testing, warranty, coordination with manufacturers, providing compensation for manufacturer representative to be on site, obtaining and transporting water meter from the City of Racine to the site, and performing all work as discussed in this special provision article; and for furnishing all labor, tools, equipment and incidentals necessary to complete this item of work. No additional payment will be made under any circumstances to complete this work.

77. Removal and Disposal of Invasive Plant Species, Item SPV.0170.001.

A Description

(1) This work shall consist of removing and disposal of invasive plant species, including but not limited to Phragmites, Cut-leaved teasel and Wild Parsnip per the Invasive Species Identification, Classification, and Control Rule (Chapter NR 40, Wis. Adm. Code). Plants shall be removed and disposed from areas designated as follows. It shall include furnishing all necessary materials and performing all necessary work such as excavating topsoil, cutting stems, removing individual plants including roots, disposing of plants, and such work necessary and incidental to complete the item according to the plans, specifications, and contract.

B (Vacant)

C Construction

(1) The WDNR Liaison will determine locations of invasive plant species.

C.1 Removing and Disposing of Phragmites (Common Reed)

(1) All phragmite plants shall be removed from areas designated by the WDNR Liaison. Removal of phragmites shall include removal of the entire plant and root system. Removal shall be performed by removal of all existing topsoil and plant biomass from the areas designated by the WDNR Liaison. Topsoil and biomass removed from invasive plant areas shall be kept in a separate stockpile than topsoil intended for reuse on the project under the Topsoil Special item.

(2) All plants removed shall be disposed either on-site under a minimum of 5 feet of fill or plants shall be taken to a solid waste landfill. Transport of plants to any location other than a licensed landfill shall require approval by the WisDNR. Disposal of plants under fill or at a licensed landfill shall occur within 1 day of removal.

C.2 Removing and Disposing of Cut-leaved Teasel and/or Wild Parsnip

(1) All Cut-leaved Teasel and/or Wild Parsnip plants shall be removed from areas designated by the WDNR Liaison. Removal of Cut-leaved Teasel and Wild Parsnip shall by cut at the stem or completely excavated. Removal shall be performed by either removal of each individual plant by hand or by removal of all existing topsoil and plant biomass from the areas designated by the WDNR Liaison. If excavation methods are used to remove plants, the topsoil shall be kept in a separate stockpile than topsoil intended for reuse on the project under the Salvaged Topsoil item.

(2) All plants removed shall be disposed either on-site under a minimum of 5 feet of fill or plants shall be taken to a solid waste landfill. Transport of plants to any location other than a licensed landfill shall require approval by the WisDNR. Disposal of plants under fill or at a licensed landfill shall occur within 1 day of removal.

C.3 Wild Parsnip Safety

(1) Care shall be taken when handling Wild Parsnip. When sap contacts skin in the presence of sunlight, it can result in severe rashes, blisters, and discoloration of the skin (phytophotodematitis). Wear gloves, long sleeves, and long pants when handling this species.

C.4 404 Permit

(1) Areas of invasive species designated by the WDNR Liaison may be outside of wetland fill areas covered under the 404 permit. Excavation shall not be performed in these areas. For Cut-leaved Teasel and Wild Parsnip in these areas, the plants shall be cut at the stem, removed and disposed according to Section C.2.

C.5 DNR Contact

(1) A minimum of two weeks prior to excavation within invasive plant species areas, contact WisDNR for identification and delineation of invasive species in the field. The DNR contact is:

Kristina Betzold
Environmental Analysis and Review Specialist
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212
Phone: (414) 507-4946
krisitna.betzold@wisconsin.gov

D Measurement

The department will measure Removal and Disposal of Invasive Plant Species by the full 100-foot station, acceptably completed, measured along the roadway reference line with each full 100-foot station starting and ending at a +00 station.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0170.001	Removal and Disposal of Invasive Plant Species	STA

(2) Payment is full compensation for removing, stockpiling, excavating, loading, hauling, and either on-site disposal or licensed landfill disposal of these invasive plants.

If invasive plants are removed by excavation methods, the department will pay for restoring topsoil under the Salvaged Topsoil or Topsoil items.

78. Topsoil Special, Item SPV.0180.001.

A Description

This special provision section describes furnishing, placing, spreading, and finishing humus-bearing soil, adapted to sustain plant life, commonly known as topsoil, from locations the contractor furnishes beyond the limits of the right-of-way.

This special provision also describes removing topsoil from the sites of proposed roadway excavations and embankments in quantities and depths available and necessary to cover the work slopes. This work also includes reclamation, placing, spreading, and finishing of this topsoil.

B Materials

Furnish material that is relatively free from large roots, sticks, weeds, brush, stones, litter, and waste products.

Furnish material, either obtained offsite, or material obtained within project limits, consisting of loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to sustain plant life. Do not use surface soils from ditch bottoms, drained ponds, and eroded areas, or soils which are supporting growth of NR 40 listed plants and noxious weeds or other undesirable vegetation. Ensure that the material conforms to the following:

Topsoil Requirements	Minimum Range	Maximum Range
Material Passing 2.00 mm (#10) Sieve[1]	90%	100%
PH Range	6.0	7.0
Organic Matter[2]	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand and Gravel	10%	70%

[1] See standard spec 625.3.3 for sieve requirements when using either sod or seed mixture 40.

[2] Organic matter determined by loss on ignition test of samples oven dried to constant weight at 212 F (100 C).

C Construction

C.1 Preparing the Roadway for Topsoil

Undercut or underfill all areas designated to receive topsoil to a degree that if covered to the required depth with topsoil the finished work conforms to the required lines, grades, slopes and cross sections the plans and drawings show.

C.2 Processing Topsoil

Mow topsoil procurement areas to a height of approximately 6 inches. Remove litter such as brush, rock, and other materials that will interfere with subsequent vegetation establishment.

Strip off the humus-bearing soil. Take care to minimize removing the underlying sterile soil. Then stockpile the topsoil on the right-of-way or place it directly on the designated areas.

Obtain topsoil from embankment areas outside the roadway foundation only if that additional material is required to cover the slopes, and conforms to the requirements of section B in this special provision. Use excess topsoil on the project or dispose of as specified in standard spec 205.3.12.

C.3 Placing Topsoil

After preparing and finishing the areas designated for topsoil to the required lines, grades, slopes and cross section, place and spread the topsoil to a uniform depth as the plans show or the contract requires. If no depth is shown, place and spread the topsoil to a minimum depth of 4 inches in rural areas and a minimum depth of 6 inches in urban areas, or as the engineer designates.

Break down all clods and lumps using appropriate equipment to provide a uniformly textured soil.

Where using either sod or seed mixture 40 ensure that, for the upper 2 inches, 100 percent of the material passes a one-inch sieve and at least 90 percent passes the No. 10 sieve.

Remove rocks, twigs, foreign material, and clods that cannot be broken down. Dress the entire surface to present a uniform appearance. The engineer will not require rolling.

If light sandy soils are covered with heavier clay bearing loam topsoil, then mix or blend the 2 types of soils to a more or less homogeneous mixture by using the appropriate equipment.

D Measurement

The department will measure Topsoil Special acceptably completed by the square yard. The measured quantities shall equal the actual number of square yards of topsoiled area to the depth specified within the limits of construction designated on the plans, or in the contract, or as the engineer directs.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.001	Topsoil Special	SY

Payment for Topsoil Special is full compensation for removing, stockpiling, reclaiming, providing, processing, excavating, loading, hauling, and placing this material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no deductions from the Excavation bid items for quantities of Topsoil Special obtained from cut sections. The department will not measure or pay for volumes of Topsoil Special obtained from the sites of proposed embankments under the Excavation bid items. Additionally, the department will make no allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections necessary to receive Topsoil Special. The department will not measure and pay for volumes of Topsoil Placed under the Roadway Embankment bid item.

If an area is damaged by erosion after partial acceptance, the department will pay for restoring topsoil in these areas at a unit price determined by multiplying the contract unit price bid for Topsoil multiplied by 3, the department will pay for restoration under the Restoration Post Acceptance Topsoil administrative item.

The department will not pay for removing topsoil from outside the roadway foundation in embankment areas unless that material is necessary to cover the slopes.

sef-625-005 (20170310)

79. Excavation, Hauling, and Disposal of Contaminated Soil, Item SPV.0195.009.

Notice to Contractor – Possible Contaminated Soil Location

The department completed a review of environmental documents and databases for soil contamination at locations within this project where excavation is required. The review indicated that contaminated soil is likely to be encountered during excavation across the Waxdale Spur (former railroad corridor) at the following locations:

1. International Drive, Station 51SDR+00 to 51SDR+40, from approximately 60 feet left to 90 feet right of reference line SDR, from approximately 0 to 1+’ below grade.
2. International Drive, Station 51NDR+00 to 51NDR+40, from approximately 100 feet left to 50 feet right of reference line NDR, from approximately 0 to 1+’ below grade.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the area of the railroad crossing described above.

The environmental consultant for this project is:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd., Suite 180, Brookfield, WI 53045
Contact:	Bryan Bergmann
Phone:	(262) 879-1212
Fax:	(262) 879-1220
E-mail:	bbergmann@trcsolutions.com

Information regarding the department’s hazardous materials assessment and the potential for handling and disposal of contaminated soil is available by contacting:

Name:	Andrew Malsom
Address:	141 NW Barstow St., Waukesha, WI 53187
Phone:	(262) 548-6705
E-mail:	Andrew.Malsom@dot.wi.gov

Control construction operations at the location described above to ensure that they do not extend beyond the excavation limits indicated in the plans.

Soil excavated from the location described above will require temporary stockpiling within the right-of-way and analytical testing. The stockpile shall be placed on plastic and covered with plastic according to NR 718.05 of the Wisconsin Administrative Code.

Soil samples from the stockpile will be submitted to a laboratory for analytical testing. The results of the laboratory testing will be used to determine if the soil requires landfill disposal or can be considered common excavation. The soil sampling, laboratory testing, and approval for landfill disposal (if necessary) is estimated to take up to 10 calendar days to complete.

If analytical testing indicates the stockpiled soil requires landfill disposal, the closest landfills to the project would be the following:

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

Waste Management Pheasant Run Recycling and Disposal Facility
19414 60th Street
Bristol, WI 53104
(262) 857-7956

Advanced Disposal Emerald Park Landfill
W124 S10629 South 124th St.
Muskego, WI 53150
(414) 529-1360

Perform this work according to standard spec 205 and with pertinent parts of Chapter NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil,

If contaminated soil is encountered at this site or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

A.1 Excavation Management Plan

The excavation management plan for this project has been designed to minimize the offsite landfilling of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities at this site contact:

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

A.2 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd., Ste. 180, Brookfield, WI 53045
Contact:	Bryan Bergmann
Phone:	(262) 901-2126 office, (262) 227-9210 cell
Fax:	(262) 879-1220
E-mail:	bbergmann@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated as expressed on the project plans and described in the special provisions;
2. Providing field support during excavation activities;
3. Coordinating lab testing for landfill acceptance;
4. Identifying contaminated soils to be hauled to the landfill;
5. Obtaining landfill permitting and documentation of proper landfill disposal;
6. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein.

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

Identify the landfill that will be used for disposal of contaminated soil, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the possible contaminated soil area or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.3 Health and Safety Requirements

Add the following to standard spec 107.1:

During excavation activities, expect to encounter soil possibly contaminated with Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and/or Metals. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

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

B (Vacant)

C Construction

Add the following to standard spec 205.3:

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

Excavate the possible contaminated soil in the area shown in the plan. Stockpile the material within the project footprint of DOT right-of-way, pending lab results and landfill acceptance (if necessary). Construct and maintain a temporary stockpile of the material according to NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration and precipitation.

The environmental consultant will coordinate analytical testing of possible contaminated soil for landfill acceptance. (5) business days should be allowed for the laboratory to conduct this testing and issue results. In the event the laboratory analytical test results do not indicate contamination is present, the stockpiled material may be considered common excavation and can be handled according to the erosion control implementation plan (ECIP).

Once landfill acceptance permitting is complete (if necessary), directly load and haul soils to the landfill as directed by the environmental consultant. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soil or residues. Prior to transport, sufficiently dewater soils designated for off-site bioremediation so as not to contain free liquids. Verify that the vehicles used to transport contaminated materials are licensed for such activity according to applicable state and federal regulations.

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.009	Excavation, Hauling, and Disposal of Contaminated Soil	Ton

Payment is full compensation for excavating, stockpiling (including contractor-provided plastic sheeting to cover as well as place the material on), loading, and hauling the contaminated soil to a landfill; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary.

107-100 (20050901)

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

Release of Routine Retainage

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

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

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

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

ADDITIONAL SPECIAL PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $2.15 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1\right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

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

Make the following revisions to the standard specifications:

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: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	108.4400 CPM Progress Schedule	1.000 EACH	_____._____	_____._____
0004	201.0105 Clearing	17.000 STA	_____._____	_____._____
0006	201.0205 Grubbing	17.000 STA	_____._____	_____._____
0008	203.0100 Removing Small Pipe Culverts	1.000 EACH	_____._____	_____._____
0010	204.0115 Removing Asphaltic Surface Butt Joints	333.000 SY	_____._____	_____._____
0012	204.0120 Removing Asphaltic Surface Milling	11,637.000 SY	_____._____	_____._____
0014	204.0170 Removing Fence **P**	30.000 LF	_____._____	_____._____
0016	204.0220 Removing Inlets	1.000 EACH	_____._____	_____._____
0018	204.0245 Removing Storm Sewer (size) 001. 15-Inch	240.000 LF	_____._____	_____._____
0020	204.0245 Removing Storm Sewer (size) 002. 84-Inch	167.000 LF	_____._____	_____._____
0022	204.0280 Sealing Pipes	1.000 EACH	_____._____	_____._____
0024	204.9090.S Removing (item description) 001. Draintile	7,000.000 LF	_____._____	_____._____
0026	205.0100 Excavation Common	75,574.000 CY	_____._____	_____._____
0028	206.2000 Excavation for Structures Culverts (structure) 001. C-51-84	 LS	LUMP SUM	_____._____
0030	210.2500 Backfill Structure Type B	4,192.000 TON	_____._____	_____._____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	213.0100 Finishing Roadway (project) 001. 2704-00-75	1.000 EACH	_____.____	_____.____
0034	305.0110 Base Aggregate Dense 3/4-Inch	63.000 TON	_____.____	_____.____
0036	305.0120 Base Aggregate Dense 1 1/4-Inch	22,837.000 TON	_____.____	_____.____
0038	311.0110 Breaker Run	42,993.000 TON	_____.____	_____.____
0040	415.0100 Concrete Pavement 10-Inch **P**	36,458.000 SY	_____.____	_____.____
0042	415.4100 Concrete Pavement Joint Filling	36,458.000 SY	_____.____	_____.____
0044	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.____	_____.____
0046	416.1010 Concrete Surface Drains	408.000 CY	_____.____	_____.____
0048	440.4410 Incentive IRI Ride	9,265.000 DOL	1.00000	9,265.00
0050	455.0605 Tack Coat	1,048.000 GAL	_____.____	_____.____
0052	460.2000 Incentive Density HMA Pavement	1,518.000 DOL	1.00000	1,518.00
0054	460.5223 HMA Pavement 3 LT 58-28 S	287.000 TON	_____.____	_____.____
0056	460.5224 HMA Pavement 4 LT 58-28 S	1,610.000 TON	_____.____	_____.____
0058	465.0120 Asphaltic Surface Driveways and Field Entrances	2.000 TON	_____.____	_____.____
0060	465.0125 Asphaltic Surface Temporary	148.000 TON	_____.____	_____.____
0062	465.0315 Asphaltic Flumes	45.000 SY	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	495.1000.S Cold patch	7.000 TON	_____.____	_____.____
0066	504.0100 Concrete Masonry Culverts **P**	418.000 CY	_____.____	_____.____
0068	505.0400 Bar Steel Reinforcement HS Structures	50,060.000 LB	_____.____	_____.____
0070	505.0600 Bar Steel Reinforcement HS Coated Structures	8,350.000 LB	_____.____	_____.____
0072	516.0500 Rubberized Membrane Waterproofing **P**	50.000 SY	_____.____	_____.____
0074	520.8000 Concrete Collars for Pipe	1.000 EACH	_____.____	_____.____
0076	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	17.000 EACH	_____.____	_____.____
0078	522.0424 Culvert Pipe Reinforced Concrete Class IV 24-Inch	131.000 LF	_____.____	_____.____
0080	522.0512 Culvert Pipe Reinforced Concrete Class V 12-Inch	30.000 LF	_____.____	_____.____
0082	522.0524 Culvert Pipe Reinforced Concrete Class V 24-Inch	396.000 LF	_____.____	_____.____
0084	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	2.000 EACH	_____.____	_____.____
0086	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	3.000 EACH	_____.____	_____.____
0088	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	13.000 EACH	_____.____	_____.____
0090	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	2.000 EACH	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0092	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	2.000 EACH	_____.____	_____.____
0094	522.1060 Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	1.000 EACH	_____.____	_____.____
0096	601.0409 Concrete Curb & Gutter 30-Inch Type A **P**	23,248.000 LF	_____.____	_____.____
0098	601.0555 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A **P**	1,009.000 LF	_____.____	_____.____
0100	602.0410 Concrete Sidewalk 5-Inch **P**	14,323.000 SF	_____.____	_____.____
0102	602.0505 Curb Ramp Detectable Warning Field Yellow	40.000 SF	_____.____	_____.____
0104	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	146.000 SF	_____.____	_____.____
0106	606.0200 Riprap Medium	435.100 CY	_____.____	_____.____
0108	606.0300 Riprap Heavy	488.800 CY	_____.____	_____.____
0110	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	39.000 LF	_____.____	_____.____
0112	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	3,005.000 LF	_____.____	_____.____
0114	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	940.000 LF	_____.____	_____.____
0116	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	996.000 LF	_____.____	_____.____
0118	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	213.000 LF	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0120	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	1,822.000 LF	_____.____	_____.____
0122	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	169.000 LF	_____.____	_____.____
0124	608.0354 Storm Sewer Pipe Reinforced Concrete Class III 54-Inch	857.000 LF	_____.____	_____.____
0126	608.0360 Storm Sewer Pipe Reinforced Concrete Class III 60-Inch	157.000 LF	_____.____	_____.____
0128	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	517.000 LF	_____.____	_____.____
0130	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	96.000 LF	_____.____	_____.____
0132	608.0484 Storm Sewer Pipe Reinforced Concrete Class IV 84-Inch	149.000 LF	_____.____	_____.____
0134	608.0515 Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	32.000 LF	_____.____	_____.____
0136	611.0530 Manhole Covers Type J	39.000 EACH	_____.____	_____.____
0138	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.____	_____.____
0140	611.0624 Inlet Covers Type H	106.000 EACH	_____.____	_____.____
0142	611.0627 Inlet Covers Type HM	8.000 EACH	_____.____	_____.____
0144	611.0639 Inlet Covers Type H-S	4.000 EACH	_____.____	_____.____
0146	611.0642 Inlet Covers Type MS	2.000 EACH	_____.____	_____.____
0148	611.2004 Manholes 4-FT Diameter	123.000 EACH	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0150	611.2005 Manholes 5-FT Diameter	7.000 EACH	_____.____	_____.____
0152	611.2006 Manholes 6-FT Diameter	13.000 EACH	_____.____	_____.____
0154	611.2008 Manholes 8-FT Diameter	7.000 EACH	_____.____	_____.____
0156	611.3902 Inlets Median 2 Grate	1.000 EACH	_____.____	_____.____
0158	611.9800.S Pipe Grates	13.000 EACH	_____.____	_____.____
0160	612.0204 Pipe Underdrain Unperforated 4-Inch	42.000 LF	_____.____	_____.____
0162	612.0206 Pipe Underdrain Unperforated 6-Inch	1,121.000 LF	_____.____	_____.____
0164	612.0208 Pipe Underdrain Unperforated 8-Inch	50.000 LF	_____.____	_____.____
0166	612.0700 Drain Tile Exploration	4,000.000 LF	_____.____	_____.____
0168	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	1.000 EACH	_____.____	_____.____
0170	616.0700.S Fence Safety	3,000.000 LF	_____.____	_____.____
0172	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0174	620.0300 Concrete Median Sloped Nose **P**	996.000 SF	_____.____	_____.____
0176	623.0200 Dust Control Surface Treatment	125,709.000 SY	_____.____	_____.____
0178	624.0100 Water	3,300.000 MGAL	_____.____	_____.____
0180	627.0200 Mulching	8,400.000 SY	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0182	628.1104 Erosion Bales	310.000 EACH	_____.____	_____.____
0184	628.1504 Silt Fence	12,806.000 LF	_____.____	_____.____
0186	628.1520 Silt Fence Maintenance	13,658.000 LF	_____.____	_____.____
0188	628.1905 Mobilizations Erosion Control	2.000 EACH	_____.____	_____.____
0190	628.1910 Mobilizations Emergency Erosion Control	2.000 EACH	_____.____	_____.____
0192	628.2008 Erosion Mat Urban Class I Type B	88,559.000 SY	_____.____	_____.____
0194	628.6510 Soil Stabilizer Type B	18.400 ACRE	_____.____	_____.____
0196	628.7005 Inlet Protection Type A	121.000 EACH	_____.____	_____.____
0198	628.7020 Inlet Protection Type D	119.000 EACH	_____.____	_____.____
0200	628.7504 Temporary Ditch Checks	816.000 LF	_____.____	_____.____
0202	628.7555 Culvert Pipe Checks	26.000 EACH	_____.____	_____.____
0204	628.7560 Tracking Pads	6.000 EACH	_____.____	_____.____
0206	629.0210 Fertilizer Type B	57.750 CWT	_____.____	_____.____
0208	630.0140 Seeding Mixture No. 40	1,594.000 LB	_____.____	_____.____
0210	630.0200 Seeding Temporary	1,594.000 LB	_____.____	_____.____
0212	633.5200 Markers Culvert End	22.000 EACH	_____.____	_____.____
0214	634.0618 Posts Wood 4x6-Inch X 18-FT	42.000 EACH	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0216	637.0620 Sign Flags Permanent Type II	4.000 EACH	_____.____	_____.____
0218	637.2210 Signs Type II Reflective H	214.500 SF	_____.____	_____.____
0220	637.2230 Signs Type II Reflective F	17.500 SF	_____.____	_____.____
0222	638.2602 Removing Signs Type II	12.000 EACH	_____.____	_____.____
0224	638.3000 Removing Small Sign Supports	12.000 EACH	_____.____	_____.____
0226	640.1303.S Pond Liner Clay	5,703.000 CY	_____.____	_____.____
0228	643.0410 Traffic Control Barricades Type II	1.000 DAY	_____.____	_____.____
0230	643.0420 Traffic Control Barricades Type III	5,318.000 DAY	_____.____	_____.____
0232	643.0705 Traffic Control Warning Lights Type A	10,636.000 DAY	_____.____	_____.____
0234	643.0900 Traffic Control Signs	1,131.000 DAY	_____.____	_____.____
0236	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0238	645.0105 Geotextile Type C	650.000 SY	_____.____	_____.____
0240	645.0120 Geotextile Type HR	1,929.000 SY	_____.____	_____.____
0242	645.0220 Geogrid Type SR	26,184.000 SY	_____.____	_____.____
0244	646.1020 Marking Line Epoxy 4-Inch **P**	14,747.000 LF	_____.____	_____.____
0246	646.3020 Marking Line Epoxy 8-Inch **P**	1,629.000 LF	_____.____	_____.____
0248	646.5020 Marking Arrow Epoxy	14.000 EACH	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0250	646.5120 Marking Word Epoxy	10.000 EACH	_____.____	_____.____
0252	646.6120 Marking Stop Line Epoxy 18-Inch	120.000 LF	_____.____	_____.____
0254	646.7220 Marking Chevron Epoxy 24-Inch	264.000 LF	_____.____	_____.____
0256	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	157.000 LF	_____.____	_____.____
0258	646.8120 Marking Curb Epoxy	40.000 LF	_____.____	_____.____
0260	646.8220 Marking Island Nose Epoxy	4.000 EACH	_____.____	_____.____
0262	649.0105 Temporary Marking Line Paint 4-Inch	1,500.000 LF	_____.____	_____.____
0264	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	6,154.000 LF	_____.____	_____.____
0266	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	323.000 LF	_____.____	_____.____
0268	653.0135 Pull Boxes Steel 24x36-Inch	5.000 EACH	_____.____	_____.____
0270	654.0105 Concrete Bases Type 5	31.000 EACH	_____.____	_____.____
0272	654.0230 Concrete Control Cabinet Bases Type L30	1.000 EACH	_____.____	_____.____
0274	655.0230 Cable Traffic Signal 5-14 AWG	1.000 LF	_____.____	_____.____
0276	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	31.000 EACH	_____.____	_____.____
0278	690.0150 Sawing Asphalt	92.000 LF	_____.____	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0280	715.0415 Incentive Strength Concrete Pavement	3,038.000 DOL	1.00000	3,038.00
0282	SPV.0035 Special 001. Roadway Embankment	129,399.000 CY	_____.____	_____.____
0284	SPV.0035 Special 002. EBS Excavation	8,728.000 CY	_____.____	_____.____
0286	SPV.0035 Special 003. EBS Backfill	8,728.000 CY	_____.____	_____.____
0288	SPV.0060 Special 001. Temporary Stone Ditch Checks	10.000 EACH	_____.____	_____.____
0290	SPV.0060 Special 002. Sand Bags	30.000 EACH	_____.____	_____.____
0292	SPV.0060 Special 003. Temporary Sediment Traps	3.000 EACH	_____.____	_____.____
0294	SPV.0060 Special 009. Section Corner Monuments	2.000 EACH	_____.____	_____.____
0296	SPV.0060 Special 012. Connect Drain Tile	15.000 EACH	_____.____	_____.____
0298	SPV.0060 Special 013. Manholes 2-FT Diameter	5.000 EACH	_____.____	_____.____
0300	SPV.0060 Special 014. Manholes 9-FT Diameter	2.000 EACH	_____.____	_____.____
0302	SPV.0075 Special 001. Pavement Cleanup Project 2704-00-75	20.000 HRS	_____.____	_____.____
0304	SPV.0090 Special 001. Heavy Duty Silt Fence	852.000 LF	_____.____	_____.____
0306	SPV.0090 Special 002. Pipe Underdrain 6-Inch Special	1,300.000 LF	_____.____	_____.____
0308	SPV.0105 Special 001. Temporary Water Diversion Culvert C-51-84	LS	LUMP SUM	_____.____
0310	SPV.0105 Special 002. Survey Project 2704-00-75	LS	LUMP SUM	_____.____

Proposal ID: 20180612006 Project(s): 2704-00-75

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0312	SPV.0105 Special 730. Water Tap Service and Irrigation System	LS	LUMP SUM	_____.____
0314	SPV.0170 Special 001. Removal and Disposal of Invasive Plant Species	4.000 STA	_____.____	_____.____
0316	SPV.0180 Special 001. Topsoil Special	88,559.000 SY	_____.____	_____.____
0318	SPV.0195 Special 009. Excavation, Hauling, and Disposal of Contaminated Soil	10.000 TON	_____.____	_____.____
	Section: 0001		Total:	_____.____

Total Bid: _____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE