HIGHWAY WORK PROPOSAL

Proposal Number: Ø 6

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	1060-34-87		Zoo IC - Dual Lane On Ramps USH 45 & Watertown Plank Rd	USH 45

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

Proposal Guaranty Required, $ 75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: June 14, 2016 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time December 23, 2016	
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)

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

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Removals, excavation common, base aggregate, concrete pavement, concrete curb and gutter, storm sewer, erosion control, traffic control, pavement marking, sign structures, permanent signing, FTMS, lighting.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

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

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

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

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

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

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

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1060-34-87, Zoo IC, Dual Lane On Ramps, USH 45 & Watertown Plank Road, USH 45, Milwaukee 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, 2016 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 (20151210)

2. Referenced Construction Specifications.

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

Conform to the referenced construction specifications for the following:

Hydrant Relocation, Item SPV.0060.5001

105-002 (20130615)

3. Scope of Work.

The work under this contract shall consist of excavation, aggregate base course, concrete pavement, curb and gutter, traffic control, sign structures, pavement marking, signage, 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)

4. Prosecution and Progress.

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

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

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

Furnish a written request for a conditional notice to proceed to the engineer for approval to begin work prior to August 1, 2016. The request for a conditional notice to proceed shall be specific and include description of work, work zones, schedule, haul routes and traffic impacts. The conditional notice to proceed will not affect the completion date. All construction equipment, traffic impacts and activities utilized or mobilized prior to August 1, 2016 shall not disrupt the ongoing construction contracts listed in the Other Contracts section of the specifications.

The completion date is based on an expedited work schedule and may require extraordinary forces and equipment; work on Saturdays, Sundays, and nationally recognized legal holidays; and work at night.

Indicate on the proposed schedule of operations that a large force and adequate equipment will be needed to assure that the work will be completed within the established contract time.

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, pavement marking, finishing items and other incidental items. No additional payment will be made, by the department, for additional mobilizations.

Anticipate cold weather, and ancillary concrete work (curb, median, etc), and winter concrete work. 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.

After written notice to proceed, and prior to Final Acceptance of the work, assist with maintenance of existing roadways and bridges as specified in standard spec 104.6.1. This assistance may include performance of work covered under pay items or accommodating local repair forces within the work zones. Maintain all newly constructed work as specified in standard spec 104.6.1.

Place topsoil in all graded areas as designated by the engineer immediately after grading has been completed. Fertilize, seed, and mulch or fertilize and sod all areas within five calendar days after placement of topsoil.

Equipment, vehicles, or materials shall be parked or stored only at work sites approved by the engineer.

Submit any traffic control change requests to the engineer at least 48 hours prior to an actual traffic control change. A request does not constitute approval.

Lane closures on arterial roadways are permitted during off-peak hours (from 9:00 AM – 3:00 PM) or overnight hours (from 9:00 PM– 6:00 AM).

All traffic shifts shall be completed during off peak hours (from 9:00 AM – 3:00 PM) or overnight hours (from 9:00 PM – 6:00 AM).

Schedule of Operations
Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement. The department anticipates that the schedule for each stage shall be as follows:

Anticipated schedule:

Do not move to the next stage until all work in the current stage is completed or as approved by the engineer.

Stage 1A Construction:
- Begin construction of portion of outside radius and pavement of widened entrance ramp on Watertown Plank Road eastbound and sidewalk.
- Begin construction of S-40-865 and S-40-866.

Stage 1B Construction:
- Continue construction of portion of outside radius and pavement of widened entrance ramp on Watertown Plank Road eastbound and sidewalk.
- Continue construction of S-40-865 and S-40-866.

Stage 1C Construction:
- Begin construction of portion of median and pavement of widened entrance ramp on Watertown Plank Road eastbound and sidewalk.
- Continue construction of S-40-865 and S-40-866.

Stage 2A Construction:
- Begin construction of portion of outside radius and pavement of widened entrance ramp on Watertown Plank Road westbound and sidewalk.
- Remove sign Structure S-40-985
- Begin construction of S-40-867, and S-40-868.

Stage 2B Construction:
- Continue construction of portion of outside radius and pavement of widened entrance ramp on Watertown Plank Road westbound and sidewalk.
- Continue construction of S-40-867 and S-40-868.

Stage 2C Construction:
- Begin construction of portion of median and pavement of widened entrance ramp on Watertown Plank Road westbound and sidewalk.
- Continue construction of S-40-867 and S-40-868.

Stage 3 Construction:

- Finish construction of overhead Structures of S-40-865, S-40-866, S-40-867, and S-40-868.
- Remove existing sign Structures S-40-961, S-40-964 and S-40-984.

Portable Changeable Message Signs

Obtain acceptance from the engineer regarding the wording of all messages on portable changeable message signs.

Ramp Meter Operation

This project includes work on existing functional ramp meters. Work that effects the functionality of the ramp meter system must be done without interrupting the functionality of the ramp meters, including advance flasher assemblies and fiber optic cable. To accomplish this, construction of new infrastructure for the impacted system(s) must be completed prior to beginning removal of existing infrastructure and work requiring interruptions of functionality must begin and be completed during hours in which the respective ramp meter is not in use. Ramp meters are in use during the hours of 5:00 AM until 9:00 AM and 2:00 PM until 6:00 PM on weekdays.

Work Zone Restrictions

Do not close local street traffic lanes or intersections and ensure that the local street traffic lanes are entirely clear for traffic during Peak Hours, except as shown in the traffic control plans. One local street traffic lane and/or the shoulder may be closed during Off-Peak Hours. Close intersections only during Off-Peak Hours, unless otherwise specified in the plan, or unless otherwise approved by the engineer for safety or operational reasons associated with other adjacent local street closures.

Follow plan details for closures. Lane restrictions beyond that shown on the traffic control plans must be approved by the engineer. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer so that approval, or disapproval, is obtained at least three business days prior to the closure of local roadway and/or intersection as identified in Contractor Coordination.

Do not, at any time, conduct construction operations in the median area and adjacent outside shoulder area of the local street at the same time without obtaining prior permission of the engineer, beyond that shown on the traffic control plans.

The Milwaukee County Sheriff's substation is located adjacent to the construction zone west of I-41/US 45. Maintain emergency access for Milwaukee County Sheriff’s vehicles from the substation into the work site at all times. Make available work zone access for the Sheriff's vehicles to use from the substation to access US 45 southbound. Provide access for the Sheriff’s that is clear of obstacles.

Do not close the sidewalk on the north side of Watertown Plank Road during Stage 1.

Do not close the sidewalk on the south side of Watertown Plank Road during Stage 2.

The eastbound Watertown Plank Road ramp to IH 41/US45 may be closed during off peak night time hours to facilitate Storm Sewer construction between Station 767WC+00 and Station 768WC+00. This one time only closure will be allowed during Stage 1A and shall not exceed two consecutive nights in duration.

Eastbound Watertown Plank Road may be reduced to two through lanes to facilitate roadway construction between Station 28WEB+56 and Station 45WEB+00. This one time only closure will be allowed during Stage 1B and shall not exceed 14 consecutive calendar days in duration.

Eastbound Watertown Plank Road may be reduced to one through lane between Station 28WEB+56 and Station 45WEB+00 during daytime off peak hours to facilitate concrete paving. This one time only closure will be allowed during Stage 1B and shall not exceed one calendar day in duration.

The westbound Watertown Plank Road ramp to IH 41/US45 may be closed during off peak night time hours to facilitate Storm Sewer construction between Station 755WA+00 and Station 756WA+50. This one time only closure will be allowed during Stage 2A and shall not exceed two consecutive nights in duration.

Westbound Watertown Plank Road may be reduced to two through lanes to facilitate roadway construction between Station 58WWB+00 and Station 76WWB+95. This one time only closure will be allowed during Stage 2B and shall not exceed 14 consecutive calendar days in duration.

Westbound Watertown Plank Road may be reduced to one through lane between Station 58WWB+00 and Station 76WWB+95 during daytime off peak hours to facilitate concrete paving. This one time only closure will be allowed during Stage 2B and shall not exceed one calendar day in duration.

Eastbound Watertown Plank Road may be closed at Swan Boulevard during off peak night time hours to facilitate sign structure installation and removal. This one time only closure will be allowed during Stage 3 and shall not exceed two nights in duration. Traffic will be detoured.

Westbound Watertown Plank Road may be closed during off peak night time hours to facilitate sign structure installation and removal. This one time only closure will be allowed during Stage 3 and shall not exceed two nights in duration. Traffic will be detoured.

Interim and Final Completion of Work
Supplement standard spec 108.11 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.

Each day is defined as a twenty-four hour period beginning at 12:01 AM.
SEF Rev. 14_1211

Interim Completion of Eastbound Lane Restriction
If the contractor fails to complete all work and coordination measures necessary on eastbound Watertown Plank Road to restore traffic to 3 lanes within 14 calendar days of the closure date, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day that the roadway is restricted after 12:01 AM, on the 15th calendar day after the closure begins. An entire calendar day will be charged for any period of time within a calendar day that the road remains restricted beyond 12:01 AM, on the 15th day that the roadway is not open to three lanes.

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

Interim Completion of Westbound Lane Restriction
If the contractor fails to complete all work and coordination measures necessary on westbound Watertown Plank Road to restore traffic to 3 lanes within 14 calendar days of the closure date, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day that the roadway is restricted after 12:01 AM, on the 15th calendar day after the closure begins. An entire calendar day will be charged for any period of time within a calendar day that the road remains restricted beyond 12:01 AM, on the 15th day that the roadway is not open to three lanes.

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

Interim Completion of Work 11/04/2016
If the contractor fails to complete all of the work necessary to Watertown Plank Road and the entrance ramps to IH 41/US45 in each direction as shown in Stage 2 of the traffic control plans including:

- All work shown in stages 1 and 2;
- Watertown Plank Road and Ramp pavement, pavement marking, sidewalk, flashing beacons, signage (not including sign structures and Type 1 signs), lighting, ramp meters and restoration;

prior to 12:01 AM on November 5, 2016, the department will assess the contractor $5,000 in interim liquidated damages per day for each calendar day after 12:01 AM on November 5, 2016. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM on November 5, 2016.

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

Winter Maintenance
Milwaukee County will perform snow removal operations for freeway and ramp lanes that are open to traffic. The City of Wauwatosa will perform snow removal operations for local streets that are open to traffic. Provide for snow removal in those areas closed to traffic as required to facilitate safe construction operations and as required to eliminate snow melt run-off from crossing active roadways. Provide Milwaukee County Highway Maintenance and Milwaukee County Sheriff's Department with a 24-hour emergency contact number for when maintenance is required.

5. Traffic.

General
Keep IH 41 and all service ramps and Watertown Plank Road open to through traffic at all times for the duration of this project except as noted below and in the Prosecution and Progress article in these special provisions.

Schedule of Operations
Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement as approved by the engineer. The department anticipates that the schedule of major traffic shifts and roadway openings and closings for each stage shall be as follows, unless approved by the engineer:

Stage 1A Traffic:
- Close south side sidewalk and adjacent to the entrance ramp to I-41/US45.
- Outside lane of Watertown Plank Road eastbound may be closed during off peak daytime hours.
- Keep Watertown Plank Road ramp open except for the 2 nights allowed in the Prosecution and Progress.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on the north side of the interchange must remain open.

Stage 1B Traffic:
- Close outside lane of Watertown Plank Road eastbound and adjacent to the entrance ramp to I-41/US45.
- Center lane of Watertown Plank Road eastbound may be closed during off peak daytime hours during paving operations.

- Keep Watertown Plank Road ramp open.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on the north side of the interchange must remain open.

Stage 1C Traffic:

- Open outside lane of Watertown Plank Road eastbound and adjacent to the entrance ramp to I-41/US45.
- Close the existing Ramp WC pavement and switch traffic to the newly constructed ramp pavement.
- Keep Watertown Plank Road ramp open.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on the north side of the interchange must remain open.

Stage 2A Traffic:

- Close north side sidewalk and adjacent to the entrance ramp to I-41/US45.
- Outside lane of Watertown Plank Road westbound may be closed during off peak daytime hours.
- Keep Watertown Plank Road ramp open except for the 2 nights allowed in the Prosecution and Progress.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on the south side of the interchange must remain open.

Stage 2B Traffic:

- Close outside lane of Watertown Plank Road westbound and adjacent to the entrance ramp to I-41/US45.
- Center lane of Watertown Plank Road westbound may be closed during off peak daytime hours during paving operations.
- Keep Watertown Plank Road ramp open.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on the south side of the interchange must remain open.

Stage 2C Traffic:

- Open outside lane of Watertown Plank Road westbound and adjacent to the entrance ramp to I-41/US45.
- Close the existing Ramp WA pavement and switch traffic to the newly constructed ramp pavement.
- Keep Watertown Plank Road ramp open.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on the south side of the interchange must remain open.

Stage 3 Traffic:

- Keep the old Ramp WA and Ramp WC pavements closed
- Outside lane of Watertown Plank Road eastbound and westbound may be closed during off peak daytime hours.

- Watertown Plank Road eastbound and westbound may be closed during off peak nighttime hours for sign structure installation and removal.
- Keep Watertown Plank Road ramps open except for the nights allowed in the Prosecution and Progress.
- Contractor shall not close both sides of pedestrian sidewalks at the same time. Sidewalks on one side of the interchange must remain open at all times.

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction ≤16')	MINIMUM NOTIFICATION
Lane and shoulder closures	14 calendar days
Full roadway closures	14 calendar days
System and service ramp closures	14 calendar days
Full system and service ramp closures	14 calendar days
Detours	14 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction >16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
System and service ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.
108-057 (20150630)

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying I-41, the Watertown Plank Road ramps to I-41 and Watertown Plank Road traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016 for Labor Day;
- From noon Wednesday, November 23, 2016 to 6:00 AM Monday, November 28, 2016 for Thanksgiving;
- From noon Friday, December 23, 2016 to 6:00 AM Tuesday, December 27, 2016 for Christmas;

107-005 (20050502)

7. Utilities.

This contract comes under the provisions of Administrative Rule TRANS 220.

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 Douglas Gendron at (414) 750-4362 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 and 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.

Utility working days shown herein are as defined in Wisconsin Administrative Code Chapter Trans 220.

Known utilities in the project area are as follows:

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

- An underground communications line beginning beyond the westerly project limits and running easterly in the eastbound lanes of Watertown Plank Road to a manhole at Station 44WWB+11, 54'RT where it turns and runs southeasterly approximately 8' east of the westerly right of way of USH 45 to a manhole at Station 746WF+50, 21'RT where it turns and runs northeasterly, crossing USH 45 at Station 356NS+54, and continues northeasterly to a manhole at Station 758WJ+25, 18'RT. From there it continues northeasterly to Station 61WWB+45, 54'RT where it turns and runs easterly in the eastbound lanes of Watertown Plank Road to beyond the project limits. This line will remain in place without adjustment.
- An underground communications line consisting of empty conduits beginning at a manhole at Station 59WWB+65, 114'RT and running northerly, crossing Watertown Plank Road at Station 59WWB+76, and continuing northerly and ending at Station 59WWB+77, 80'LT. This line will remain in place without adjustment.

AT&T Wisconsin also has discontinued facilities within the project limits in the following locations:

- A discontinued underground communications line between a manhole at Station 44WWB+11, 54'RT and a manhole at Station 65WWB+27, 77'RT.
- A discontinued underground line beginning at a manhole at Station 44WWB+11, 54'RT and running northerly, crossing Watertown Plank Road at Station 44WWB+18, and continuing northerly to Station 44WWB+29, 30'LT where it turns and runs easterly along the north side of Watertown Plank Road to beyond the project limits.
- A discontinued underground communications line beginning at a manhole at Station 59WWB+94, 52'RT and running northerly, crossing Watertown Plank Road at Station 59WWB+95, and continuing northerly to a manhole at Station 59WWB+95, 31'LT.

Contact Jay Bulanek (262-896-7669 office) of AT&T Wisconsin 7 days in advance to coordinate locations and any excavation near their facilities.

American Transmission Company (ATC) has existing overhead and underground 138kV electric transmission lines within the project limits in the following locations:

- An overhead 138kV electric transmission line beginning beyond the southerly project limits and running northerly along the east side of USH 45 and ending at a pole at Station 758WJ+20, 37'RT. This line will remain in place without adjustment.
- An underground 138kV transmission line beginning at a pole at Station 758WJ+20, 37'RT and running northeasterly to the eastbound lanes of Watertown Plank Road where it turns and runs easterly to Station 70WWB+00, 22'RT where it turns and

curves northeasterly to Station 70WWB+95, 47'LT. From there it runs northerly to beyond the project limits. This line will remain in place without adjustment.

- An overhead 138kV line beginning beyond the westerly project limits and running easterly, approximately 775' north of Watertown Plank Road, to a pole at Station 73WD+54, 34'LT where it turns and runs northeasterly, crossing USH 45 at Station 373NS+55, and continues northeasterly to a pole at Station 773WA+23, 94'RT. From there it turns and runs southeasterly to a pole at Station 58WWB+02, 76'LT where it turns and runs easterly to a pole at Station 65WWB+04, 65'LT and then continues easterly to a pole at Station 71WWB+95, 65'LT. From there the line runs northerly to beyond the project limits. This line will remain in place without adjustment.

Coordinate construction activities with ATC. Due to constraints from the multi-state electric grid, these lines cannot be de-energized during construction. Use caution when operating overhead equipment in this area and maintain OSHA safe working clearance to the overhead conductors at all times. Notify ATC 48 hours before beginning any work within or around overhead electric transmission lines.

Contact Ivan Keller (262-422-0326) of American Transmission Company 7 days in advance to coordinate locations and any excavation near their facilities.

Midwest Fiber Network has existing underground communications facilities within the project limits in the following locations:

- An underground communications line beginning beyond the westerly project limits and running easterly along the south right of way of Watertown Plank Road to Station 43WWB+75, 93' RT where it turns and runs southeasterly along the westerly right of way of USH 45 to a handhole at Station 752WC+88, 44' LT. From there it turns and runs northeasterly, crossing USH 45 at Station 353NS+17, and continues northeasterly to Station 754WJ+00, 17' RT where it turns and runs northerly along the east right of way of USH 45 to Station 60WWB+64, 85' RT. From there it turns and runs easterly along the south side of Watertown Plank Road to Station 63WWB+15, 82'RT where it turns and runs northerly, crossing Watertown Plank Road at Station 63WWB+17, and continues northerly to beyond the project limits. This line will remain in place without adjustment.
- An underground communications line beginning at a handhole at Station 63WWB+18, 37'LT and running easterly along the northerly curb line of Watertown Plank Road to beyond the project limits. This line will remain in place without adjustment.

Midwest Fiber Networks also has discontinued underground communications lines in the project limits in the following locations:

- A discontinued underground communications line beginning beyond the westerly project limits and running easterly along the south side of Watertown Plank Road to a handhole at Station 46WWB+54, 98' RT and continuing easterly to a handhole at Station 63WWB+01, 82' RT.

Contact Richard Trgovec (414-459-3554 office) of Midwest Fiber Network 7 days in advance to coordinate locations and any excavation near their facilities.

Milwaukee County – Electric & Communications has existing underground electric facilities within the project limits in the following locations:

- An underground electric line beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 72WWB+35, and continuing southerly to a manhole at Station 72WWB+31, 108'RT. From there it runs easterly along the south side of Watertown Plank Road, crossing 92nd Street at Station 11THS+24, and continuing easterly to Station 11THS+20, 55'RT where it turns and runs southerly behind the easterly curb line of 92nd Street to beyond the project limits. This line will remain in place without adjustment.

Milwaukee County also has discontinued facilities within the project limits in the following locations:

- A discontinued underground electric line beginning beyond the northerly project limits and running southerly to Station 59WWB+97, 64'LT where it turns and runs southeasterly, crossing Watertown Plank Road at Station 60WWB+25, and continues southeasterly to Station 60WWB+43, 38'RT. From there the line continues southerly to beyond the project limits.
- A discontinued underground communication line beginning beyond the westerly project limits and running easterly, crossing Ramp WF at Station 744WF+44, and continuing easterly to Station 746WF+62, 93'LT where it turns and runs southeasterly along the westerly right of way of USH 45 and ends at Station 749WC+12, 28'RT.
- A discontinued underground electric line beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 59WEB+91, and continuing southerly to a manhole at Station 59WWB+95, 65'RT. From there it turns and runs southeasterly to beyond the project limits.
- A discontinued underground communication line beginning beyond the northerly project limits and running southerly, crossing Ramp WH at Station 782WH+48, and continuing southerly to Station 782WH+52, 08'RT where it turns and runs southeasterly to a manhole at Station 783WH+33, 8'RT. From there it runs southerly and southeasterly, crossing Ramp WA at Station 756WA+49, and continues southeasterly to Station 59WEB+76, 78'LT where it turns and runs easterly along the north side of Watertown Plank Road to beyond the project limits.
- A discontinued underground communication line beginning at a manhole at Station 783WH+33, 8'RT and running northerly, crossing Ramp WH at Station 783WH+29, and continuing northerly to Station 783WH+23, 14'LT where it turns and runs northeasterly and easterly to beyond the easterly project limits.
- A discontinued underground electric line beginning at a manhole at Station 72WWB+31, 108'RT and running northerly, crossing Watertown Plank Road at Station 72WWB+38, and continuing northerly to a manhole at Station 72WWB+55, 73'LT. From there the line runs easterly to beyond the project limits.

- A discontinued underground electric line beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 75WWB+88, and continuing southerly to a manhole at Station 75WWB+84, 74'RT. From there the line runs easterly to beyond the project limits.

Contact Karl Stave (414-278-4863 office) of Milwaukee County 7 days in advance to coordinate locations and any excavation near their facilities.

Milwaukee County – Sanitary has existing underground sanitary sewer facilities within the project limits in the following locations:

- An underground sanitary sewer beginning beyond the westerly project limits and running easterly along the north right of way of Watertown Plank Road to a manhole at Station 41WEB+22, 85'LT where it turns and runs northerly to beyond the project limits. This line will remain in place without adjustment.
- An underground sanitary sewer beginning at a manhole at Station 41WEB+22, 85'LT and running southeasterly to a manhole at Station 41WEB+54, 54'RT where it turns and runs easterly along the south right of way of Watertown Plank Road to a manhole at Station 43WEB+50, 54'RT where it turns and runs southeasterly to a manhole at Station 45WEB+27, 326'RT. From there the line runs southerly and ends at a manhole at Station 45WEB+26, 651'RT beyond the southerly project limits. This line will remain in place without adjustment.
- An underground sanitary sewer beginning beyond the westerly project limits at 92nd Street and running easterly, crossing 92nd Street at Station 10THS+27, and continuing easterly to a manhole at Station 10THS+24, 102'RT. From there the sewer runs southeasterly to beyond the project limits. This line will remain in place without adjustment.

Milwaukee County – Sanitary also has discontinued underground sanitary sewer facilities in the project area at the following locations:

- A discontinued underground sanitary sewer beginning at a manhole at Station 759WA+90, 3'LT and running easterly to beyond the easterly project limits of the northeast interchange ramp.

Contact Karl Stave (414-278-4863 office) of Milwaukee County 7 days in advance to coordinate locations and any excavation near their facilities.

Milwaukee County – Water has existing underground water facilities within the project limits in the following locations:

- An underground water main beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 72WWB+14, and continuing southerly to beyond the project limits. This line will remain in place without adjustment.

- An underground water main beginning beyond the westerly project limits at 92nd Street and running easterly, crossing 92nd Street at Station 11THS+27, and continuing easterly to Station 11THS+30, 63'RT where it turns and runs southerly along the east side of 92nd Street to beyond the project limits. This line will remain in place without adjustment.

Milwaukee County Water also has discontinued water mains within the project limits in the following locations:

- A discontinued water main beginning beyond the westerly project limits and running easterly, crossing Ramp WC at Station 762WC+97, and continuing easterly to Station 360NS+81, 545'LT. From there it turns and runs northeasterly to Station 363NS+97, 138'LT where it turns and runs southeasterly along the median of Watertown Plank Road to Station 361NS+61, 85' RT. From there it turns and runs southeasterly to Station 356NS+89, 122' RT. From there it turns and runs easterly to beyond the easterly project limits.
- A discontinued water main beginning beyond the westerly project limits and running easterly along the north side of Watertown Plank Road, crossing USH 45 at Station 363NS+35, and continuing easterly and ending at Station 72WWB+22, 51'LT.
- A discontinued water main beginning beyond the westerly project limits and running westerly to Station 756WG+75, 0' LT where it turns and runs northerly to Station 49WWB+83, 3' RT. From there it turns and runs easterly in the median of Watertown Plank Road to Station 53WWB+08, 2' RT where it turns and runs southeasterly to Station 365NS+88, 122' RT. From there it turns and runs easterly to beyond the easterly project limits.
- A discontinued water main beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 72WWB+22, and continuing southerly to beyond the project limits.

Contact Karl Stave (414-278-4863 office) of Milwaukee County 7 days in advance to coordinate locations and any excavation near their facilities.

MMSD has existing underground sanitary sewer facilities within the project limits in the following locations:

- A 36" ductile iron force main beginning beyond the westerly project limits and running easterly and southeasterly along the south side of the median of Watertown Plank Road, crossing USH 45 at Station 362NS+22, and continuing southeasterly to a manhole at Station 61WWB+39, 30'RT. This main will remain in place without adjustment.
- An underground gravity sewer beginning at a manhole at Station 61WWB+39, 30'RT and running easterly to a manhole at Station 66WWB+12, 55'RT where it turns and runs easterly along the eastbound lanes of Watertown Plank Road to beyond the project limits. This sewer will remain in place without adjustment.

Contact Debra Jensen (414-225-2143) of MMSD 7 days in advance to coordinate locations and any excavation near their facilities.

TDS Metrocom has an existing underground communication line beginning beyond the westerly project limits and running easterly along the median of Watertown Plank Road to a manhole at Station 43WWB+31, 21'RT. From there it runs southeasterly to an AT&T Wisconsin manhole at Station 44WWB+11, 54'RT. This line will remain in place without adjustment.

Contact Michael Johnson (262-754-3052 office/ 262-939-6355 cell) of TDS MetroCom 7 days in advance to coordinate locations and any excavation near their facilities.

Time Warner Cable has existing underground communications facilities within the project limits in the following locations:

- An underground communications line beginning at Station 39WWB+30, 85'RT and running easterly to Station 43WWB+77, 89'RT where it turns and runs southeasterly to Station 752WC+88, 44'LT. From there it turns and runs northeasterly, crossing USH 45 at Station 353NS+19, to Station 754WJ+02, 17'RT where it turns and runs northerly along the east right of way of USH 45 to Station 60WWB+59, 85'RT. From there it turns and runs easterly along the south right of way of Watertown Plank Road to a handhole at Station 95WWB+18, 67'RT. This line will remain in place without adjustment.
- An underground communications line beginning beyond the westerly project limits and running easterly to Station 36WWB+98, 144'RT where it turns and runs northerly to Station 37WWB+00, 122'RT. From there it turns and runs easterly to Station 39WWB+30, 123'RT where it turns and runs northerly, crossing Watertown Plank Road at Station 39WWB+30, and continues northerly to beyond the project limits. This line will remain in place without adjustment.
- An underground communications line beginning beyond the westerly project limits and running easterly and southeasterly along the south side of Watertown Plank Road to Station 44WWB+78, 108'RT. From there it turns and runs easterly and southeasterly along the south side of Watertown Plank Road to Station 48WWB+53, 100'RT where it turns and runs southeasterly to Station 50WWB+32, 133'RT. From there it turns and runs southeasterly, crossing USH 45 at Station 360NS+86, and continues southeasterly to Station 59WWB+31, 82'RT. From there it runs easterly along the south side of Watertown Plank Road to beyond the project limits. This line will remain in place without adjustment.
- An underground communications line beginning beyond the northerly project limits at 92nd Street and running southeasterly and southerly along the easterly curb line of 92nd Street to beyond the project limits at 92nd Street. This line will remain in place without adjustment.

Time Warner Cable also has discontinued communications lines within the project limits in the following locations:

- A discontinued underground communications line beginning beyond the westerly project limits and running easterly, southeasterly and easterly along the north side of Watertown Plank Road, crossing USH 45 at Station 363NS+00, and continuing easterly along the north side of Watertown Plank Road to beyond the easterly project limits.
- A discontinued underground communications line beginning beyond the westerly project limits and running easterly, southeasterly and easterly along the south side of Watertown Plank Road, crossing USH 45 at Station 361NS+75, and continuing easterly along the south side of Watertown Plank Road to beyond the easterly project limits.

Contact Steve Cramer (414-277-4045) of Time Warner Cable 7 days in advance to coordinate locations and any excavation near their facilities.

TW Telecom has existing underground communications facilities within the project limits in the following locations:

- An underground communications line beginning at the manhole at Station 37WWB+01, 8'LT and running easterly in the westbound lanes of Watertown Plank Road to Station 44WWB+50, 11'LT where it turns and runs northeasterly to Station 44WWB+94, 69'LT. From there it turns and runs northeasterly to Station 47WWB+28, 125'LT where it turns and runs easterly, crossing USH 45 at Station 364NS+63, and continues easterly to Station 52WWB+19, 163'LT. From there it runs southeasterly to Station 56WWB+96, 70'LT where it turns and runs easterly along the north right of way of Watertown Plank Road to beyond the project limits. TW Telecom will adjust this facility between Station 58WWB+84, 61'LT and Station 59WWB+68, 56'LT and relocate an existing handhole at Station 59WWB+42, 61'LT prior to construction.

TW Telecom also has a discontinued underground communications line beginning at a manhole at Station 37WWB+01, 8'LT and running northerly to a handhole at Station 37WWB+01, 37'LT where it turns and runs easterly along the north side of Watertown Plank Road, crossing USH 45 at Station 363NS+00, and continues easterly to beyond the project limits.

Contact Brahim Gaddour (414-704-1026 office/414-908-1027 cell) of TW Telecom 7 days in advance to coordinate locations and any excavation near their facilities.

Wauwatosa, City of - Lighting has existing lighting facilities within the project limits in the following locations:

- Light poles and underground electric lines along both sides of Watertown Plank Road throughout the project limits. Relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans.
- Light poles and underground electric lines along the east and west curb lines of 92nd Street throughout the project limits at 92nd Street. These facilities will remain in place without adjustment.
- An underground electric line beginning at the west curb line of 92nd Street and running easterly, crossing 92nd Street at Station 9THS+54, and continuing easterly to the east curb line of 92nd Street. This line will remain in place without adjustment.

Contact Randy Michelz (414-471-8429) of the City of Wauwatosa 7 days in advance to coordinate locations and any excavation near their facilities.

Wauwatosa Water Utility has existing underground water facilities within the project limits in the following locations:

- An underground water main beginning beyond the westerly project limits and running easterly in the westbound lanes of Watertown Plank Road, crossing USH 45 at Station 362NS+91, and continuing easterly to Station 64WWB+43, 7'LT. From there the line turns and runs northerly to beyond the project limits. This line will remain in place without adjustment. Relocate the existing fire hydrant at Station 59WWB+25, 54'LT as shown in the plans.

Contact Jim Wojcehowicz (414-479-8965) of the Wauwatosa Water Utility 7 days in advance to coordinate locations and any excavation near their facilities.

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

- Two underground electric lines beginning at Station 32WX+89, 145'LT and running northerly along the east right of way of USH 45 to Station 752WJ+20, 23'RT. These lines will remain in place without adjustment.
- An underground electric duct package beginning at Station 752WJ+20, 23'RT and running northerly along the easterly right of way of USH 45 to Station 59WWB+75, 261' RT where it turns and runs northeasterly to Station 60WWB+32, 119'RT. From there it turns and runs northerly, crossing Watertown Plank Road at Station 60WWB+29, and continues northerly to Station 60WWB+28, 78'LT where it turns and runs easterly along the north right of way of Watertown Plank Road to beyond the project limits. This line will remain in place without adjustment.
- Six underground electric conduits beginning at Station 752WJ+20, 23'RT and running southwesterly, crossing USH 45 at Station 351NS+54, and continuing southwesterly to a vault at Station 351NS+27, 223'LT. These conduits will remain in place without adjustment.

- An underground electric duct package beginning at a vault at Station 351NS+27, 223'LT and running northwesterly along the westerly right of way of USH 45 to Station 43WWB+85, 122' RT where it turns and runs westerly along the south right of way of Watertown Plank Road to Station 34WWB+94, 119'RT. From there it turns and runs northerly, crossing Watertown Plank Road at Station 34WWB+95, and continues northerly to beyond the project limits. This line will remain in place without adjustment.
- An underground electric duct package beginning beyond the westerly project limits and running easterly along the southerly right of way of Watertown Plank Road to Station 37WWB+24, 154'RT where it turns and runs northerly, crossing Watertown Plank Road at Station 37WWB+25, and continues northerly to beyond the project limits. This line will remain in place without adjustment.
- An underground electric line beginning at Station 37WWB+24, 108'RT and running easterly along the south side of Watertown Plank Road to Station 44WWB+51, 109'RT where it turns and runs southeasterly to Station 44WWB+71, 141' RT. From there it turns and runs northeasterly to Stat ion 45WWB+51, 96' RT where it turns and runs northerly, crossing Watertown Plank Road at Station 45WWB+51, and continues northerly to a cabinet at Station 45WWB+51, 89' LT. We Energies will reconstruct a portion of this line between Station 44WWB+36, 112'RT and Station 45WWB+50, 97'RT prior to construction.
- An underground electric line beginning at a cabinet at Station 57WWB+63, 98'RT and running easterly to Station 58WWB+73, 102'RT where it turns and runs northerly, crossing Watertown Plank Road at Station 58WWB+81, and continuing northerly to Station 58WWB+87, 87'LT. From there the line continues northerly to beyond the project limits. We Energies will reconstruct this line between Station 58WWB+88, 63'LT and Station 58WWB+83, 288'LT prior to construction.
- An underground electric line beginning at Station and running southeasterly to Station 59WWB+94, 68'LT where it turns and runs easterly along the north side of Watertown Plank Road to beyond the project limits. Prior to construction, We Energies will relocate a portion of this line beginning at Station 58WWB+87, 87'LT and running northeasterly to Station 58WWB+90, 103'LT where it will turn and run easterly to Station 59WWB+37, 96'LT where it will turn and run southeasterly to Station 60WWB+30, 68'LT. The portion of the line between Station 58WWB+87, 87'LT and Station 60WWB+30, 68'LT will be discontinued in place.
- An underground electric line beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 71WWB+15, and continuing southerly to beyond the project limits. This line will remain in place without adjustment.
- An underground electric line beginning beyond the northerly project limits and running southerly, crossing Watertown Plank Road at Station 71WWB+25, and continuing southerly to beyond the project limits. This line will remain in place without adjustment.
- An underground electric line beginning beyond the westerly project limits at 92nd Street and running easterly, crossing 92nd Street at Station 11THS+09, and continuing easterly to Station 11THS+08, 42'RT where it turns and runs southerly in the northbound lanes of 92nd Street to beyond the project limits. This line will remain in place without adjustment.

We Energies - Electric also has discontinued electric lines within the project limits in the following locations:

- A discontinued underground electric line beginning beyond the westerly project limits and running easterly along the south side of Watertown Plank Road to Station 38WWB+88, 84'RT. From there it turns and runs southerly and ends at a switch fuse unit at Station 38WWB+88, 108'RT.
- A discontinued underground electric line beginning a switch fuse unit at Station 38WWB+88, 108'RT and running northerly to Station 38WWB+88, 84'RT where it turns and runs easterly along the south side of Watertown Plank Road to Station 46WWB+44, 83'RT. From there it turns and runs southeasterly along the west side of the USH 45 southbound on ramp to Station 759WG+00, 53'LT.
- A discontinued underground electric line beginning at Station 45WWB+00, 81'RT and running northerly, crossing Watertown Plank Road at Station 45WWB+00, and continuing northerly to Station 45WWB+00, 32'LT where it turns and runs easterly to Station 45WWB+80, 32'LT. From there it turns and runs northerly along the west side of the USH 45 southbound off ramp to beyond the northerly project limits.
- Two discontinued underground electric lines running parallel and approximately 10 feet apart beginning beyond the southerly project limits and running northwesterly along the east right of way of USH 45 to Station 56WWB+39, 230'RT where they turn and run northeasterly to Station 57WWB+24, 88'RT. From there they turn and run easterly along the south side of Watertown Plank Road to Station 60WWB+92, 90'RT where they turn and run northerly, crossing Watertown Plank Road at Station 61WWB+10, and continue northerly to Station 61WWB+10, 55'LT. From there they turn and run easterly along the north side of Watertown Plank Road to Station 70WWB+54, 17'LT where they turn and run northerly to beyond the northerly project limits.
- Two discontinued underground electric lines running parallel beginning at Station 354NS+90, 132'RT and running northeasterly to Station 60WWB+81, 104'RT.

Contact Erich Wuestenhagen (414-651-3948 cell) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

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

- An underground gas main beginning beyond the westerly project limits and running easterly, crossing Innovation Drive at Station 165NV+06, and continuing easterly to Station 36WWB+43, 148'RT where it turns and runs northerly, crossing Watertown Plank Road at Station 36WWB+44, and continuing northerly to Station 36WWB+43, 35'LT. From there it turns and runs easterly along the north side of Watertown Plank Road to Station 40WWB+93, 36'LT where it turns and runs northerly to beyond the project limits. This line will remain in place without adjustment.

We Energies - Gas also has discontinued facilities within the project limits in the following locations:

- A discontinued underground gas main beginning beyond the westerly project limits and running easterly along the westbound lanes of Watertown Plank Road to Station 36WWB+90, 25'LT where it turns and runs southerly, crossing Watertown Plank Road at Station 36WWB+90, and continuing southerly to Station 36WWB+89, 96'RT. From there it turns and runs westerly to Station 36WWB+71, 96'RT where it turns and runs southerly to beyond the project limits.
- A discontinued underground gas main beginning at Station 36WWB+66, 26'LT and running northerly to beyond the project limits.
- A discontinued underground gas main beginning at Station 36WWB+90, 25'LT and running easterly and southeasterly along the westbound lanes of Watertown Plank Road to Station 55WWB+38, 20'LT where it turns and runs southwesterly, crossing Watertown Plank Road at Station 55WWB+38, and continues southerly to Station 55WWB+37, 54'RT where it turns and runs southeasterly along the south side of Watertown Plank Road to a pressure regulation pit at Station 76WWB+63, 94'RT.
- A discontinued underground gas main beginning at Station 40WWB+93, 25'LT and running northerly to Station 40WWB+93, 43'LT.
- A discontinued underground gas main beginning at Station 43WWB+25, 24'LT and running southerly, crossing Watertown Plank Road at Station 43WWB+24, and continuing southerly to Station 43WWB+25, 85'RT where it turns and runs easterly along the south side of Watertown Plank Road to Station 43WWB+72, 86'RT. From there it turns and runs southerly to beyond the southerly project limits.

Contact Erich Wuestenhagen (414-651-3948 cell) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Steam has underground steam facilities within the project limits in the following locations:

- An underground steam line in a concrete trench box beginning beyond the southerly project limits and running northeasterly, crossing Watertown Plank Road at Station 72WWB+91, and continuing northeasterly to beyond the project limits. This line will remain in place without adjustment.

We Energies also has discontinued underground steam facilities within the project limits in the following locations:

- Discontinued steel steam lines in an underground concrete trench box beginning beyond the westerly project limits and running easterly to a manhole at Station 48WWB+03, 95'RT where it turns and runs northerly, crossing Watertown Plank Road at Station 48WWB+23, and continues northerly to a manhole at Station 48WWB+35, 54'LT. From there it turns and runs northeasterly, crossing USH 45 at Station 365NS+00, and continues northeasterly to a manhole at Station 761WA+58,

3’LT where it turns and runs easterly to beyond the easterly project limits of the northeast interchange ramp.
- Discontinued steel steam lines in an underground concrete trench box beginning at a manhole at Station 761WA+58, 3’LT and running northerly to beyond the northerly project limits of the northeast interchange ramp.
- Two discontinued direct-buried steel steam lines beginning at an existing manhole at Station 44WWB+00, 254’RT and running northwesterly to Station 43WWB+56, 129’RT where they turn and run westerly to Station 42WWB+43, 124’RT. From there they turn and run northerly, crossing Watertown Plank Road at Station 42WWB+44, and continue northerly to beyond the northerly project limits.

Contact Erich Wuestenhagen (414-651-3948 cell) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

WisVest, the development branch of We Energies, provides cooling for the Milwaukee County Regional Medical Center through chilled water lines from the power plant on the north side of Watertown Plank Road. WisVest is not a utility and the description of the lines contained herein is provided for informational purposes only. WisVest has existing underground chilled water lines within the project limits in the following locations:

- Two underground chilled water lines running parallel and approximately 5 feet apart beginning beyond the southerly project limits and running northerly to Station 69WWB+57, 33’RT where they turn and run northeasterly, crossing Watertown Plank Road at Station 70WWB+14, and continuing northeasterly to beyond the project limits. These lines will remain in place without adjustment.
- Two underground chilled water lines running parallel and approximately 5 feet apart beginning beyond the northerly project limits at 92nd Street at Station 11THS+67, 87’RT and running southerly along the east side of 92nd Street to beyond the southerly project limits at 92nd Street at Station 09THS+39, 71’RT. These lines will remain in place without adjustment.

WisVest also has discontinued chilled water lines within the project limits in the following locations:

- Two discontinued underground chilled water lines running parallel and approximately 5 feet apart beginning at Station 66WEB+22, 122’RT and running westerly to Station 62WEB+64, 107’RT where they turn and run westerly to Station 59WEB+96, 145’RT. From there the lines run southwesterly, crossing USH 45 at Station 355NS+25, and continuing southwesterly to Station 748WF+32, 74’RT where they turn and run westerly to beyond the westerly project limits.

Contact John Hyland (414-221-2423 office, 414-531-3966 cell) of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

WisDOT – Lighting has existing lighting facilities along the medians of USH 45 throughout the project limits and along the ramps at the Watertown Plank Road interchange. Relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans.

Contact Eric Perea (262-574-5422 office/414-750-0935 cell) of WisDOT - Lighting 7 days in advance to coordinate locations and any excavation near their facilities.

WisDOT STOC has existing communication facilities along USH 45 throughout the project limits and at the ramps of the Watertown Plank Road interchange. Relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans.

Contact Jeff Madson (414-225-3723) of WisDOT - STOC 7 days in advance to coordinate locations and any excavation near their facilities.

8. Other Contracts.

A Description

Coordinate your work according to standard spec 105.5.

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

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:

Contract ID 1060-33-81, Zoo Interchange Phase 2 reconstruction. The WisDOT contact is Mark Klipstein at (414) 750-1496; mark.klipstein@dot.wi.gov.

Contract ID 1060-34-82, IH 894 Northbound Auxiliary Lane reconstruction from Oklahoma Avenue to National Avenue. The WisDOT contact is Mark Klipstein at (414) 750-1496; mark.klipstein@dot.wi.gov.

Contract ID 1060-34-83, IH 894 Southbound Auxiliary Lane reconstruction from Oklahoma Avenue to National Avenue. The WisDOT contact is Mark Klipstein at (414) 750-1496; mark.klipstein@dot.wi.gov.

Contract ID 1060-33-96, Zoo IC – Advanced Signing Projects; various locations. The WsDOT contact is Christopher Hager at (414) 750-1487; christopher.hager@dot.wi.gov.

Contract ID 1060-34-84, Zoo IC Center Street Bridge reconstruction. The WisDOT contact is Jay Obenberger at (414) 750-3259; jay.obenberger@dot.wi.gov.

Contract ID 1060-34-74, Zoo IC Wauwatosa West Berm construction. The WisDOT contact is Jay Obenberger at (414) 750-3259; jay.obenberger@dot.wi.gov.

Contract ID 1060-34-86, Zoo IC Deep Storm Sewer construction. The WisDOT contact is Jay Obenberger at (414) 750-3259; jay.obenberger@dot.wi.gov.

Contract ID 1060-43-82, Elm Grove Road Bridge over IH94. The WisDOT contact is Joshua LeVeque at (414) 750-1468; joshua.leveque@dot.wi.gov.

9. Hauling Restrictions.

Replace standard spec 107.2 with the following:

Present to the department, five business days in advance of any proposed hauling, a proposed haul route plan detailing any haul routes that are needed and 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 additional haul route submittal.

The department will review the submittal and either approve or provide a letter with comments and proposed revisions to the contractor within five business days of its receipt. 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.

10. Erosion Control.

Supplement standard spec 107.20 with the following:

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

Provide the ECIP 14 days prior to the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison (Kristina Betzold, (414) 263-8517, Kristina.betzold@wisconsin.gov). Do not implement the ECIP until department approval, and perform all work according 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. Immediately install perimeter silt fence protection around stockpiles. If stockpiled materials will be left for more than 14 days, install temporary seed or other temporary erosion control measures the engineer orders.

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

Do not allow any 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. Prior to each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, according 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. Dewatering is considered incidental to the project.

SEF Rev. 15_0120

11. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

Residential areas	Do not exceed 5 dB(A) over preconstruction ambient noise levels
All other areas outside WisDOT right-of-way	Do not exceed 5 dB(A) over preconstruction ambient noise levels

Prior to waiving the noise compliance by the engineer, provide 48 hour advance notice to Mr. William Porter, Director of Public Works, City of Wauwatosa, (414) 479-8933, regarding the evening noise generating construction operations.
107-001 (20060512)

12. Notice to Contractor – Airport Operating Restrictions.

Fill out the FAA Notice Criteria tool for any permanent structure (bridge, light pole, etc.) or equipment (crane, etc.) used during construction.

http://oeaaa.faa.gov/oeaaa/external/portal.jsp

If required by the Notice Criteria tool, and for any crane or construction equipment higher than 200 feet above the ground, submit completed form 7460-1 (Notice of Proposed Construction or Alteration) to The Federal Aviation Administration (FAA) at least 45 days before starting construction.

SEF Rev. 14_0609

13. 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 Rev. 14_0312

14. Traffic Meetings and Traffic Control Scheduling.

Every Wednesday 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 Wednesdays at the Zoo Interchange project office on 2424 S. 102nd Street; West Allis 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 Wednesday at 2:00 PM, 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 by 12:00 PM on Thursdays.

Obtain approval from the engineer for any changes to the closure schedule that is proposed outside the Wednesday meetings, including additional closures or cancellations. Submit requests for additional closures or cancellations for Friday, Saturday, Sunday or Monday of the current schedule week by 12:00 PM on Thursday. Revise the 2-week look-ahead as needed to reflect these changes and submit to the engineer.

15. Material and Equipment Staging.

Submit a map showing all proposed material stockpile or equipment storage locations to the engineer 14 days prior to 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 Rev. 13_0204

16. Available Documents.

The department will make all its information available to bidding contractors. The list of documents that are available for contractors' information includes but is not limited to:

- Pavement Type Selection Report
- As-Built Drawings
- Preconstruction survey
- Traffic Management Plan

These documents are available from Jeff Bohen at 141 NW Barstow Street, Waukesha, WI 53187, (414) 750-2928; jeff.bohen@dot.wi.gov.

Reproduction costs will be applied to any copies requested.

SEF Rev. 15_0619

17. 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 Jeff Bohen 141 NW Barstow Street, Waukesha, WI 53187, (414) 750-2928; jeff.bohen@dot.wi.gov.

Geotechnical Memo for Sign Structures S-40-865, S-40-866, S-40-867, and S-40-868, December 11, 2015

Additional geotechnical information is available from studies and analyses that have been performed by Forward 45, LLC (F45) for the Wisconsin Department of Transportation (WisDOT) for other aspects of this project. 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 according to the plans and specifications.

SEF Rev. 14_1211

18. 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:

1. A written description of the nature of the issue.
2. The time and date of discovering the problem or issue.
3. 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 Rev. 14_1211

19. Contractor Document Submittals.

This special provision describes minimum requirements for submitting project documents to the department.

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.

20. Information to Bidders, Use of Recovered Material.

Supplement standard spec 106.2.1 with the following:

(3) Submit a material reuse proposal to the department prior to the project kickoff and initial work plan mobilization workshop. Do not incorporate any waste material, special waste, or industrial byproducts into the project prior to department acceptance of the material reuse proposal. The department reserves the right to deny any proposed material reuse proposal.

The material reuse proposal shall at a minimum; identify conformance to all of NR 538, demonstrate specification gradation conformance, and follow standard engineering practice for intended use.

(4) Provide the department with copies of all documentation and notifications required under NR 538.

(5) Within 60 days of placement, provide 3D model data of as-built locations of industrial byproduct reuse in LandXML v1.2 files and AutoCAD Civil 3D 2014 (or later version) TIN surface DWG file formats; provide data using horizontal datum - NAD-83 (GRS-1980) (2007), vertical datum - NAVD-1988 (2007), and coordinate projection - Wisconsin County Coordinate System in U.S. survey feet, or in other format/datum as approved by the engineer.

21. Dust Control Implementation Plan.

A Description
Develop, update, and implement 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
Take responsibility for dust control 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. Take direct responsibility for

controlling dust at all times throughout the duration of the contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays.

Submit a DCIP to the engineer 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 any land-disturbing activities without the department's approval of the DCIP.

C.2 Dust Control Implementation Plan 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.

The DCIP shall include, but not be limited to, all of the following:

1. A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job related dust. Include the following:
    - Name, firm, address, and working-hours phone number.
    - Non-working-hours phone number.
    - Email address.
2. Individual contact persons and their respective areas of responsibility. Include the following:
    - 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 immediately 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 showing, for each anticipated land disturbing, dust generating activity, 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. List the specific contract bid items that shall be used for payment. Also indicate costs that are incidental to the contract.
    - Both maintenance and cleanup schedules and procedures.
    - How excess and waste materials shall be disposed of.
5. A description of how off-site impacts shall be monitored and dealt with.

C.3 Updating the Dust Control Implementation Plan

Update the DCIP throughout the term of the contract as the engineer directs. Obtain the engineer's approval for all DCIP alterations. Also obtain the engineer's approval for DCIP routine 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

Correct engineer identified dust control deficiencies within the time the engineer specifies. The engineer will allow from 30 minutes to 24 hours from the time the engineer notifies the contractor in writing of the deficiency. Deficiencies include, but are not limited to, actions or lack of actions resulting in excessive dust, failing to comply with the contractor's dust control implementation plan or associated special provisions, and failing to properly maintain 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 specifications 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 shall include, but is not limited to, the contract bid items listed below:

623.0200	Dust Control Surface Treatment
624.0100	Water
SPV.0075.0002	Pavement Cleanup Project 1060-34-87

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 Rev. 14_1211

22. Project Site Air Quality.

Because fine particulate matter levels for Milwaukee, Racine and Kenosha Counties 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 may need a NR 440 Concrete Crusher Plant Air Permit for air emissions. Please contact Mike Griffin, Wisconsin Department of Natural Resources, Air Compliance Engineer, (414) 263-8554, to request additional information and permit application materials. Complete permit applications may take 3 months to process.

SEF Rev. 14_1212

23. Maintaining Drainage.

Maintain drainage at and through worksite during construction according 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 any 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 Rev. 15_0209

24. Notice to Contractor – OCIP Exclusions.

The Owner Controlled Insurance Program (OCIP) insurance coverage excludes environmental/abatement work, including but not limited to hazardous materials/chemicals, lead and other materials considered hazardous – see Article – Owner Controlled Insurance Program for additional information. Environmental/abatement work must be performed by a qualified contractor and the work will not be covered under OCIP. The contractor performing Environmental/abatement work may potentially be enrolled in the OCIP if also performing other work not excluded from the OCIP umbrella. The qualified subcontractor must carry Construction Pollution Liability insurance with limits of at least $1,000,000 per Occurrence and $2,000,000 Aggregate.

Report only payroll from non-environmental work under the OCIP. Do not report payroll generated from environmental/abatement work.

Direct questions regarding this or any other aspects of OCIP to Chris Lutttrell at (608) 381-2340, or chris.luttrell@dot.wi.gov.

SEF Rev. 14_0529

25. Owner Controlled Insurance Program.

Standard spec 107.26, “Standard Insurance Requirements” is deleted in its entirety and the following standard spec 107.26 is substituted thereof:

107.26 Standard Insurance Requirements

107.26(1)(a) Owner Controlled Insurance Program

1. Overview. The State of Wisconsin, Department of Transportation ("the WisDOT") has arranged with Aon Risk Solutions, (the "OCIP administrator") for this Project to be insured under its Owner Controlled Insurance Program ("OCIP"). The OCIP is more fully described in the Mega Projects manual for the Owner Controlled Insurance Program (the "Insurance Manual") and the Safety and Health Plan Manual that are incorporated in this Special Provision and the Contract by this reference. Parties performing labor or services at the Project Site (as defined by the OCIP Policies) are eligible to enroll in the OCIP unless the party is an excluded party (as defined below). The OCIP will provide to enrolled parties(as defined below) workers' compensation and employer's liability insurance, commercial general liability insurance, Builders Risk and Excess Liability insurance as summarily described below in connection with the performance of the Work ("OCIP coverage's").

2. Enrolled Parties and Their Insurance Obligations. OCIP coverage applies only to Enrolled Parties. Enrolled Parties include the WisDOT and its employees, non-excluded Contractors and Subcontractors of all tiers who enroll in the OCIP, all employees of Enrolled Contractor's and Subcontractor's who perform Work at the Project Site, and such other persons or entities that the WisDOT, in its sole discretion, may designate (each such party who is insured under the OCIP is collectively referred to as an "Enrolled Party").

Enrolled Parties shall obtain and maintain, and shall require each of its Subcontractors to obtain and maintain, the insurance coverage specified in 107.26(1)(a) 8 below.

3. Excluded Parties and Their Insurance Obligations. OCIP coverage's do not apply to the following "Excluded Parties":

a. Hazardous materials remediation, removal and/or transport companies;

b. Vendors *, suppliers, fabricators, material dealers, truckers**, haulers, drivers and others who merely transport, pickup, deliver, or carry materials, personnel, parts or equipment or any other items or persons to or from the Project;

* WisDOT is requiring all vendors who perform maintenance on an enrolled contractor's equipment to be enrolled in the OCIP. Please see "WisDOT OCIP Enrollment Guidance Relating to Service Vendors" to determine whether they will be enrolled per project id number or on a Miscellaneous blanket basis.

** Truckers that come on site must remain in the cab of the vehicle.

Refer to the "Enrollment Matrix" which clearly outlines the requirements contingent upon the category that the entity falls under, such as: Contractor; Subcontractor; Consultant; Visitor; etc.

c. Sanitary disposal facility providers, if the only function is to drop off the units and pick them up later, they are material suppliers and are excluded. If the company also services/cleans the units on site, that is no longer being a material supplier. (Refer to "Enrollment Matrix", Vendors Providing Maintenance On Site).

d. Contractors and Subcontractors of any tier that do not perform any actual labor on the Project site;

e. Any party or entity not specifically identified in this special provision or excluded by the WisDOT as permitted by law, even if otherwise eligible.

f. If you are not employed by an Enrolled Party, but performing services of an Excluded Party, you are not covered by the OCIP.

Excluded Parties and parties not enrolled in the OCIP shall obtain and maintain, and shall require each of its excluded Subcontractors to obtain and maintain, the insurance coverage specified in standard spec 107.26(1)(a) 8 below and in the Insurance Manual. Excluded Parties shall comply with all of the safety requirements pursuant to 107.26(1)(a) 16.

4. **OCIP Insurance Policies Establish OCIP coverage's**. The OCIP coverage's and exclusions summarized in this special provision and the other contract documents are set forth in full in their respective insurance policy forms. The summary descriptions of the OCIP coverage's in this special provision or the Insurance Manual are not intended to be complete or to alter or amend any provision of the actual OCIP coverage's. In the event any provision of this special provision, the Insurance Manual, or the contract documents, conflicts with the OCIP insurance policies, the provisions of the actual OCIP insurance policies shall govern.

5. **Summary of OCIP Coverage's.** OCIP coverage's will apply only to those operations of each Enrolled Party performed at the Project Site (as defined in the OCIP insurance Policies) in connection with the Work and only to Enrolled Parties that are eligible for the OCIP.

The OCIP coverage's are primary insurance for all Enrolled Parties for occurrences during the policy period at the Project Site (as defined in the OCIP Policies). The OCIP will provide at least the following insurance to Enrolled Parties:

Summary of OCIP Coverages

This is a brief description of OCIP Insurance Coverage. Enrolled Parties should refer to the actual policies for details concerning coverage, exclusions and limitations.

a. Workers' Compensation Insurance -Statutory Limit including Jones Act and USL&H coverage, as applicable.

b. Employer's Liability Insurance $1,000,000 Bodily Injury by Accident, each accident $1,000,000 Bodily Injury by Disease, each employee $1,000,000 Bodily Injury by Disease, policy limits

c. Commercial General Liability (ISO Occurrence Form – Limits Shared By All Insureds) $2,000,000 Each Occurrence Limit (Annual Limit) $2,000,000 Personal/Advertising Injury Aggregate $4,000,000 General Aggregate Limit for all Enrolled Parties (Annual Limit)

$4,000,000 Products and Completed Operations Aggregate for all Enrolled Parties (Single Limit Applies to Entire Products and Completed Operations Extension)

10 yr. Products and Completed Operations Extension

d. The OCIP Commercial General Liability policy will not provide coverage for any claim that could be covered under a property policy or Builder's Risk policy.

e. Excess Liability insurance (over Employer's Liability and General Liability – Limits Shared by All Insureds)

$100,000,000 Each Occurrence Limit

$100,000,000 Aggregate (Annual Limit)

$100,000,000 Products and Completed Operations Aggregate Limit (Single Limit Applies to Entire Products and Completed Operations Extension).

f. Builder's Risk Insurance Coverage:

This is a brief description of Builder's Risk Insurance Coverage. Contractor should refer to the actual policies for details concerning coverage, exclusions and limitations.
The Builder's Risk insurance covers insures property, including materials, supplies, machinery, fixtures and equipment which will become a permanent part of the Work (excluding road work at grade level) in the course of construction.

The Builder's Risk coverage insures WisDOT and Enrolled Parties.

Builders Risk:

Limit
Each Occurrence Limit
$100,000,000

*Builder's Risk Obligation**:***

1. Contractor or Subcontractor shall pay to the WisDOT's designee within five (5) days
2. Written notice a maximum of up to twenty-five thousand dollars ($25,000.00) for each loss payable under the Builder's Risk Policy attributable to Contractor's Work, acts or omissions, or the Work, acts or omissions of any of Contractor's Subcontractors, or any other entity or party for whom Contractor may be responsible ("builder's risk obligation").

6. The WisDOT's Insurance Obligations.

a. The WisDOT will pay the costs of premiums for the OCIP coverage's and WisDOT will receive or pay, as the case may be, all adjustments to such costs, whether by way of dividends, retroactive adjustments, return premiums, other moneys due, audits or otherwise.

b. The WisDOT assumes no obligation to provide insurance other than that specified in this special provision and the OCIP insurance policies.

c. Except as provided by applicable law, the WisDOT's furnishing of OCIP coverage's will in no way relieve or limit, or be construed to relieve or limit, Contractor or any of its Subcontractors of any responsibility, liability, or obligation imposed by the contract documents, the OCIP insurance policies, or by law, including without limitation any indemnification obligations which Contractor or any of its Subcontractors has to the WisDOT there under. The WisDOT reserves the right at its option, to furnish other insurance coverage of various types and limits provided that such coverage is not less than that specified in the contract documents.

7. Contractor's OCIP Obligations. Contractor shall:

a. Assign to WisDOT the right to receive all such adjustments, and shall require that each of its Subcontractors of every tier assigns to WisDOT the right to receive all such adjustments.

b. Incorporate the terms of this special provision in all subcontract agreements.

c. Enroll and maintain enrollment in the OCIP, and shall ensure that each non-Excluded subcontractor, enrolls and maintains enrollment in the OCIP. Enrollment shall take place within five days of a receipt of a Notice to Proceed, and prior to commencement of work. Comply with all of the administrative, safety, insurance, and other requirements outlined in this special provision, the Insurance Manual, the OCIP insurance policies, the Safety and Health Plan Manual, or elsewhere in the contract documents.

d. Provide each of its Subcontractors with a copy of the Insurance Manual and ensure Subcontractor compliance with the provisions of the OCIP insurance policies, the Insurance Manual, this special provision, and the contract documents. The failure of (a) the WisDOT to include the Insurance Manual in the bid documents or (b) Contractor to

provide each of its eligible Subcontractors with a copy of same shall not relieve Contractor or any of its Subcontractors from any of the obligations contained therein.

e. Acknowledge, and require all of its Subcontractors to acknowledge in writing, that the WisDOT and the OCIP administrator are not agents, partners or guarantors of the insurance companies providing coverage under the OCIP (each such insurer, an "OCIP insurer") and that the WisDOT is not responsible for any claims or disputes between or among Contractor, its Subcontractors, and any OCIP insurer(s). Any type of insurance coverage or limits of liability in addition to the OCIP coverage's that Contractor or any Subcontractor requires for its or their own protection, or that is required by applicable laws or regulations, shall be Contractor's or its Subcontractor's sole responsibility and expense and shall not be billed to the WisDOT.

f. Cooperate fully with the OCIP administrator and the OCIP insurers, as applicable, in its or their administration of the OCIP.

g. Provide, within five (5) business days of the WisDOT's or the OCIP administrator's request, all documents or information as requested of Contractor or its Subcontractors. Such information may include but not be limited to, payroll records, certified copies of insurance coverage's, declaration pages of coverage's, certificates of insurance, underwriting data, prior loss history information, insurance audits, safety records or history, OSHA citations, or such other data or information as the WisDOT, the OCIP administrator, or OCIP insurers may request in the administration of the OCIP, or as required by the Insurance Manual.

h. Pay to the WisDOT's designee within five (5) days of written notification, a sum of up to **$10,000** of each claim, including court costs, attorneys fees and costs of defense for property damage to the extent losses are insured under the OCIP Commercial General Liability policy for those losses that are attributable to Contractor's Work, acts or omissions, or the Work, acts or omissions of any of its Subcontractors, or any other entity or party for whom Contractor may be responsible ("contractor General Liability obligation"). The contractor General Liability obligation will not be insured by the OCIP Coverage's.

8. Additional Insurance Required From Enrolled Parties and Excluded Parties. Contractor shall obtain and maintain, and shall require each of its Subcontractors of every tier to obtain and maintain, the insurance coverage specified in this Section in a form and from insurance companies reasonably acceptable to the WisDOT. The insurance limits may be provided through a combination of primary and excess policies, including the umbrella form of policy. The insurance required by this Section shall conform to the WisDOT's requirements outlined in the Insurance Manual and be written by companies authorized to do business in the state of Wisconsin with an **AM Best rating of A-or better**. Contractor shall provide certificates of insurance coverage to the WisDOT as required below and by the Insurance Manual.

As to Enrolled Parties, the Workers' Compensation, Employer's Liability, and Commercial General Liability insurance required by this section shall only be for operations away from the Project Site (as defined by OCIP Policies). The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.

TYPE OF INSURANCE MINIMUM LIMITS REQUIRED

1. Commercial General Liability insurance shall be endorsed to include Blanket Contractual Liability coverage.

   a. $2,000,000 Combined Single Limits per occurrence with an annual aggregate limit of not less than $4,000,000.

   b. The OCIP Coverage's shall exclude blasting or explosion operations. If blasting or explosion operations are used in connection with the Work, Commercial General Liability insurance shall not contain an exclusion for blasting or explosion and shall be provided in limits established by the WisDOT at the time such blasting or explosion methods are elected. Such coverage shall apply to operations whether the operations occur on the Project site or away from the Project site.

   c. Wisconsin Department of Transportation, their respective officers, agents and employees, and any additional entities as the WisDOT may request as additional insureds must be named as an Additional Insured which shall include: i) liability arising out of the Work performed by the named insured; ii) liability arising out of the supervision of the Work performed by or operations of the named insured; and iii) liability of the acts or omissions of the Additional Insureds relating to Work performed by the named insured for the Project, except for sole negligence of the Additional Insureds iv) will state that coverage is afforded on a primary and non-contributory basis.

   d. Ongoing Construction Operation(s) in effect at all times while work is being performed by Contractor;

   e. Subcontractors and Independent Contractors (if any);

   f. Products and Completed Operations, including coverage applicable to additional insureds (as required by this agreement) with Completed Operations coverage to remain in force, whether by endorsement or renewal of coverage, including the Contractor, any party required to be indemnified by this Contract and any other party required by this Contract to be named as an additional insured, for at least two (2) years from the date of final completion of the Project and WisDOT's acceptance of the work; and

   g. Explosion, collapse, and underground hazards.

   h. Contractual Liability (insured contract) coverage sufficient to meet the requirements of this Contract (including defense costs and attorney's fees assumed under contract);

   i. Personal and Advertising Injury Liability coverage (with the standard contractual and employee exclusions deleted);

j. Notice and Knowledge of Occurrence conditions limited to the knowledge of relevant corporate officers or risk managers with an Unintentional Errors and Omissions provision (providing that the insurer may not deny coverage unless it can show that it has been prejudiced by a failure of the insured to comply with a condition of the policy); and

k. CG 22 79 07 98 (or equivalent) is the only acceptable Professional Liability Exclusion.

l. Operations performed within 50' of railroad

m. Contractors must provide their own insurance for owned, leased, rented and borrowed equipment, whether such equipment is located at a Project Site or "in transit". Contractors are solely responsible for any loss or damage to their personal property including, without limitation, property or materials created or provided under the Contract until installed at the Project Site, Contractor tools and equipment, scaffolding and temporary structures.

2. Workers' Compensation and Employer's Liability insurance.

a. Workers' Compensation Limits: Statutory Limits

b. Employer's Liability limits:

$1,000,000 Bodily Injury by Accident, each accident $1,000,000 Bodily Injury by Disease, each employee $1,000,000 Bodily Injury by Disease, policy limits

Terms and conditions shall include:

- USL&H – where applicable.
- Jones Act – where applicable.
- All states endorsement -where applicable.

3. Commercial Automobile Liability insurance as specified by Insurance Services Office (ISO), form CA 00 01, symbol 1 (any auto) with the following limits and endorsements:

a. No Trucking or Hauling: $1,000,000 Each Accident

b. Trucking or Hauling (Non Hazardous Materials): $2,000,000 Each Accident

c. Trucking or Hauling Hazardous Materials: $5,000,000 Each Accident with an MCS 90 Endorsement and ISO Endorsement CA 99 48.

4. For any work over water, whether deemed navigable or otherwise, Contractors Pollution Liability insurance with $2,000,000 per occurrence and $2,000,000 aggregate policy limits.

5. Aviation and/or Watercraft Liability insurance, as appropriate, including hull and protection and indemnity for watercraft, or other insurance, in form and with limits of liability and from an insuring entity reasonably satisfactory to the WisDOT.

Contractor's failure to procure or maintain the insurance required by this Section and to assure all its Subcontractors of every tier maintain the required insurance during the entire term of the contract shall constitute a material breach of this contract under which the WisDOT may immediately suspend or terminate this contract or, at its discretion, procure or renew such insurance to protect the WisDOT's interests and pay any and all premiums in connection therewith, and withhold or recover all monies so paid from the Contractor.

Contractor shall provide the WisDOT with certificates of insurance as evidence that required coverage's for insurance detailed in this section are in force. The bidder shall provide certificates of insurance in their pre-qualification statement as specified in 102.1.

Contractor shall notify the WisDOT at least 60 calendar days before a cancellation or material change in coverage and only obtain coverage from insurance companies licensed to do business in the state that have an AM Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The WisDOT will make no additional or special payment for providing insurance.

The above insurance requirements shall apply with equal force whether the Contractor or a Subcontractor, or anyone directly or indirectly employed by either, performs the work under the Project.

9. Additional Insureds:

All insurance required by this agreement (excluding only workers compensation insurance) shall name WisDOT, all parties required to be indemnified by this Contract and all other parties as reasonably requested by the WisDOT, as additional insureds. All policies (including primary, excess and/or umbrella) must provide that coverage shall be primary and non-contributory to any insurance maintained by the Contractor or the additional insured, all of which shall be stated on the Certificate of Insurance provided by the Contractor. The Additional Insured Endorsement shall be on Form CG 20 10 11/85, or CG 20 33 10/01 plus CG 20 37 10/01, or equivalent, and shall include ongoing and completed operations coverage, which shall not contain any restrictions**.**

IN THE EVENT THAT THE LAW OF THE STATE IN WHICH THE PROJECT IS LOCATED (OR APPLICABLE LAW) LIMITS THE ADDITIONAL INSURED COVERAGE THAT WISDOT MAY REQUIRE FROM THE CONTRACTOR, THEN THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ADDITIONAL INSURED COVERAGE TO THE FULLEST EXTENT OF COVERAGE AND LIMITS ALLOWED BY APPLICABLE LAW AND THIS CONTRACT SHALL BE READ TO CONFORM TO SUCH LAW.

10. Contractor Representations and Warranties to the WisDOT. Contractor represents and warrants to the WisDOT or behalf of itself and its Subcontractors:

a. That all information it submits to the WisDOT or the OCIP administrator shall be accurate and complete.

b. That Contractor, on behalf of itself and its Subcontractors, has had the opportunity to read and analyze copies of the OCIP binders and specimen policies that are on file in the WisDOT's office. Any reference or summary in the contract, this special provision, the Insurance Manual, or elsewhere in any other contract document as to amount, nature, type or extent of OCIP coverage's and/or potential applicability to any potential claim or loss is for reference only. Contractor and its Subcontractors have not relied upon said reference but solely upon their own independent review and analysis of the OCIP coverage's in formulating any understanding and/or belief as to amount, nature, type or extent of any OCIP coverage's and/or its potential applicability to any potential claim or loss.

c. That the costs of OCIP coverage's were not included in Contractor's bid or proposal for the Work, the contract price, and will not be included in any change order, change modification, or any request for payment for the Work or extra work. The "costs of OCIP coverage's" is defined as the dollar amount of premiums, costs and fees the Contractor and its Subcontractors would have paid its insurance carrier to insure the operations and exposures which are being insured under the OCIP.

d. That Contractor acknowledges that the WisDOT will not pay or compensate Contractor or any Subcontractor, in any manner, for costs of OCIP coverage's or for "insurance costs" except as specifically required to be maintained by Contractor by the terms of this special provision.

11. Severability of Interests (Cross Liability):
All insurance required by this agreement (excluding only workers compensation insurance) shall include a provision or be endorsed to provide that, inasmuch as the policy is written to cover more than one insured, all terms, conditions, insuring agreements and endorsements, with the exception of limits of liability, shall operate in the same manner as if there were a separate policy covering each insured. No cross liability exclusions are permitted and there may not be any restrictions in any policies that limit coverage for a claim brought by an additional insured against a named insured. Also, there shall not be any provision in any insurance policy which excludes or conditions coverage on the existence of a contract or other agreement requiring insurance.

12. Breach of Insurance Requirements:
The Contractor's failure to obtain and maintain insurance coverages as required by this agreement shall constitute a material breach of the Contract. In such event WisDOT may at its option: (i) terminate the Contractor for default; or (ii) purchase such coverage and backcharge the premium and associated costs to the Contractor; or (iii) at their respective option, WisDOT and/or an additional insured can require the Contractor and/or its Subcontractors to pay for attorney's fees, expenses, damages and liability as a result of any claim or lawsuit to the extent coverage would have been provided to them under the Contractor's insurance but for the Contractor's breach WisDOT has the right to backcharge the Contractor for such sums. Furthermore, to the extent of their respective interest, the Insurers of those entities that were to be included as additional insureds are deemed to be third-party beneficiaries of the insurance procurement obligation.

13. **Subcontractor**:

Before permitting any Subcontractor to perform work under a subcontract, the Contractor shall require by written contract that the Subcontractor maintain insurance in like form and amounts to that required herein. The Contractor shall be responsible to ensure that each Subcontractor maintains insurance in like form and amounts and shall Provide evidence of same if requested. Contractor shall provide copies of its Subcontractor's certificates of insurance coverage to WisDOT or the OCIP Administrator upon request.

14. Notice of Cancellation:

All insurance coverages required by this agreement shall contain a provision that the coverage afforded thereunder cannot be cancelled, non-renewed, allowed to lapse, or have any restricted modifications added unless at least thirty (30) days prior written notice has been given to WisDOT. The Contractor is responsible to provide replacement coverage conforming with the requirements of this agreement in the event of any cancellation, non-renewal or modification of any insurance coverages required by this agreement.

15. Limits of Insurance:

The Contractor's insurance coverage and any additional insured coverage provided to WisDOT and any additional insured shall be for the full amount of any loss up to the policy(s) limits of liability and shall not be limited to the minimum insurance requirements of this Contract. The Contractor is responsible for notifying its insurance carriers in the event of a loss or potential loss involving coverage for the additional insureds. However, this does not prohibit any additional insureds from reporting a claim directly to the Contractor's insurance carriers.

16. Deductibles/Denial of Claims:

The Contractor shall be responsible, at no additional cost to WisDOT, for the payment of any deductibles or self-insured retention in connection with the insurance coverages required by this agreement, both for itself and all additional insureds. Any self-insured retention or deductible must be declared in writing at the time the Contractor submits its bid and must be specifically approved by WisDOT prior to execution of the Contract. The Contractor shall be responsible for any loss arising out of coverage denial by its insurance carrier. The Contractor may not procure policies that limit who may pay the SIR or deductible; rather, any SIR shall be payable by either the Contractor or the Subcontractor and the Contractor may not have a policy that prevents WisDOT from accessing or triggering coverage unless the SIR is paid by the Contractor. Contractor shall also ensure that similar conditions are incorporated into all subcontracts. In the event that WisDOT is required to pay any deductible and/or SIR to access any insurance policy, Subcontractor shall promptly reimburse the Contractor for such payment.

17. No Waiver of Insurance Requirements:

IT IS EXPRESSLY AGREED BETWEEN WISDOT AND THE CONTRACTOR THAT THE FAILURE OF WISDOT TO REQUIRE OR VERIFY COMPLETE AND TIMELY PERFORMANCE OF THE CONTRACTOR'S OBLIGATIONS UNDER THIS CONTRACT SHALL NOT BE A WAIVER BY WISDOT OF ANY RIGHT OF WISDOT

TO REQUIRE THE CONTRACTOR TO COMPLY WITH THESE INSURANCE REQUIREMENTS AND/OR TO SEEK DAMAGES BECAUSE OF THE CONTRACTOR'S FAILURE TO COMPLY WITH THE INSURANCE REQUIREMENTS IN THIS CONTRACT.

18. Audits. Contractor agrees that the WisDOT, the OCIP administrator, and/or any OCIP insurer may audit Contractor's or any of its Subcontractor's Project payroll records, books and records, insurance coverage's, insurance cost information, or any other information that Contractor provides to the WisDOT, the OCIP administrator, or the OCIP insurers to confirm their accuracy and to assure that costs of OCIP coverage's are not included in any payment for the work.

19. The WisDOT's Election to Modify or Discontinue OCIP. The WisDOT may, for any reason, modify the OCIP coverage's, discontinue the OCIP, or request that Contractor or any of its Subcontractors withdraw from the OCIP upon thirty (30) days written notice. Upon such notice Contractor and/or one or more of its Subcontractors, as specified by the WisDOT in such notice, shall obtain and thereafter maintain at the WisDOT's expense, Contractor Maintained Coverages (or a portion thereof as specified by the WisDOT) of the OCIP coverage's. The form, content, limits of liability, cost, and the insurer issuing such replacement insurance shall be subject to the WisDOT's approval.

20. Withhold of Payments. The WisDOT may withhold from any payment owing to Contractor the costs of OCIP coverage's if included in a request for payment. In the event the WisDOT audit of Contractor's records and information as permitted in the Contract, this special provision, or other contract documents reveals a discrepancy in the insurance, payroll, safety, or any other information required by the contract documents to be provided by Contractor to the WisDOT, or to the OCIP administrator, or reveals the inclusion of costs of OCIP coverage's in any payment for the work, the WisDOT will have the right to full deduction from the Contract Price of all such costs of OCIP coverage's and all audit costs. Audit costs will include but not be limited to the fees of the OCIP administrator, and the fees of attorneys and accountants conducting the audit and review. If the Contractor or its Subcontractors fail to timely comply with the provisions of this special provision or the requirements of the Insurance Manual, the WisDOT may withhold any payments due Contractor and its Subcontractors until such time as they have performed the requirements of this special provision. Such withholding by the WisDOT will not be deemed to be a default hereunder.

21. Waiver of Claim and Waiver of Subrogation:
Where permitted by law, Contractor hereby waives all rights of recovery under subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against the WisDOT, the State of Wisconsin and any of its Agencies or Officer's, Agents or employees including without limitation, the OCIP administrator, its or their officers, agents, shareholders or employees of each, if any, and any other Contractor or Subcontractor performing work or rendering services on behalf of the WisDOT in connection with the planning, development and construction of the Project, and Contractor shall require that all Contractor maintained insurance coverage related to the

work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation for claims described above.

22. Waiver of Subrogation. Where permitted by law, Contractor shall also require that all Contractor maintained insurance coverage related to the work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against the WisDOT, the State of Wisconsin and any of its Agencies or Officer's, Agents or employees including without limitation, the OCIP administrator, its or their officers, agents, shareholders or employees of each, if any. Contractor shall require similar written express waivers and insurance clauses from each of its Subcontractors. A waiver of subrogation shall be effective as to any individual or entity even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

23. Conflicts. In the event of a conflict, the provisions of this special provision shall govern, then the provisions of the contract and its other related contact documents, then the provisions of the Insurance Manual.

24. Safety. Contractor shall be solely responsible for safety on the Project and safety relating to the Work. Contractor shall establish a safety program that, at a minimum, complies with all local, state and federal safety standards, and any safety standards established by the WisDOT for the Project, including the Project Safety and Health Plan Manual.

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26. 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 Rev. 14_1212

27. CPM Progress Schedule.

Modify the standard specs as follows:

Submit a CPM Progress Schedule and updates according to standard spec 108.4.4, and as hereinafter provided.

To ensure compatibility with the Master Program Schedule, use the latest version of Primavera Project Planner (P6), by Primavera Systems, Inc., Bala Cynwyd, PA to prepare the Initial CPM Progress Schedule, Monthly CPM Progress Updates and other CPM Progress Revisions requested by the engineer.

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.

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 prior to scheduling the work.

With each Monthly CPM Progress Schedule Update also include:

1. Activities underway and as-built dates for the past month.
2. On a monthly basis, agree on the as-built dates with the department depicted in the Monthly CPM Progress Schedule Update or document any disagreements. Use the as-built dates from the Monthly CPM Progress Schedule Update for the month when updating the CPM schedule.
3. Provide actual as-built dates for completed activities through final acceptance of the project.

SEF Rev. 14_1211

28. Force Account.

Supplement standard spec 109.4.5.1 (3)1 with the following:

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 Rev. 14_1211

29. Pavement Breaking Equipment.

Use only hydraulic pavement breaking equipment for breaking pavement within 300 feet of any structure. Do not use guillotine, drop hammer, falling weight, gravity impact breakers or equivalent equipment. A multi-head hydraulic drop hammer is allowed unless a structure is within 50 feet of the roadway.

SEF Rev. 14_0415

30. 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

31. 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:

- IH41/US45 Ramps from Watertown Plank 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/cmm.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:

1. An organizational chart with names, telephone numbers, current certifications or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
4. Location of the QC laboratory, retained sample storage, and control charts and other documentation.
5. A summary of the locations and calculated quantities to be tested under this provision.
6. 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-lab-req.aspx

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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/materials

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 Zoo Interchange Construction Field Office: 2424 S. 102nd St., West Allis, Wisconsin 53227. 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.

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, the one-point Proctor tests, records of procedure adjustments, and soil changes to the engineer 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. Utilize 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 for the duration of the project. Include the daily documentation and a summary of the cumulative quantity of untested embankment material with the project records.

B.7.3 One-Point Proctor

Obtain a representative sample of the fill material and test according to AASHTO T 272. Compare the sample to the curves developed in the soils source study to determine the maximum dry density and optimum moisture. Use the appendix for AASHTO T 272 as a guide in this determination.

B.7.4 Testing Frequency

B.7.4.1 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.
One-Point Proctor (AASHTO T 272)	One per 9,000 cubic yards or when a change in fill material occurs.

B.7.4.2 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.
One-Point Proctor (AASHTO T 272)	One per 9,000 cubic yards or when a change in fill material occurs.

B.7.4.3 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.7.4.4 Subgrade Embankment in Pipe Culvert, Storm Sewer Removal, 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 below. 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.
One-Point Proctor (AASHTO T 272)	One per 3,000 cubic yards or when a change in fill material occurs.

B.7.4.5 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.
One-Point Proctor (AASHTO T 272)	One per 3,000 cubic yards or when a change in fill material occurs.

B.7.5 Compaction Zones

B.7.5.1 Subgrade Embankment portions of the project, except within 200 Feet of Bridge Abutments

Embankment material placed within 6 feet of the finished subgrade elevation is classified as upper zone material. Material placed more than 6 feet below the finished subgrade elevation is classified as lower zone material.

B.7.5.2 Subgrade Embankment Within 200 Feet of Bridge Abutments

All embankment material placed within 200 feet of bridge abutments is subject to the quality controls for upper zone material.

B.7.5.3 Subgrade Cut

Subgrade material in cut areas is subject to the quality controls for upper zone material.

B.7.5.4 Subgrade Embankment in Culvert Pipe Trenches

Material placed within culvert pipe trenches is subject to the quality controls for the zone that the material is located in.

B.7.5.5 Structure and Granular Backfill at Bridge Abutments

All backfill material placed adjacent to bridge abutments is subject to the quality controls for upper zone material.

Also see plan notes identifying special compaction

B.7.6 Control Limits
B.7.6.1 Field Density
B.7.6.1.1 General Conditions
The lower control limit for field density measurements in the upper zone is a minimum of 95.0% 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% of the maximum dry density for any individual test.

The lower control limit for field density measurements in the lower zone is a minimum of 93.0% of the maximum dry density as determined by AASHTO T 99 or T 272 for the 4-point running average and a minimum of 90.0% of the maximum dry density for any individual test.

B.7.6.2 Field Moisture Content
B.7.6.2.1 general conditions
The upper control limit for the field moisture content in the upper and lower zones is 105.0% 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 the upper and lower zones is 65.0% 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% passing the No. 200 sieve.

B.7.7 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 above 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 the one-point Proctor 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 department will test the first split sample obtained by the contractor for the one-point Proctor. 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 fails to 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 furnishing all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

SEF Rev. 15_0709

32. Select Crushed Material.

Modify the standard specs as follows:

Replace standard spec 312.2(6) with the following:

The department will assess select crushed material acceptability based primarily on the engineer's visual inspection. The department may require contractor to sample, test and report gradation or fracture results to show conformance of material. One test per source, production process or change of production process may be required.

Replace standard spec 312.5(2) with the following:

Payment for Select Crushed Material is full compensation for providing and compacting select crushed material and all work necessary to provide gradation or fracture test results.

SEF Rev. 14_1212

33. QMP Base Aggregate.

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

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

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

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
1. Production and placement control and inspection.
2. Material sampling and testing.

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

A.2 Contractor Testing for Small Quantities

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

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
2. Divide the aggregate into uniformly sized sublots for testing as follows:

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

[1] If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] For 3-inch material, obtain samples at load-out.

[3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Department verification testing is optional for quantities of 6000 tons or less.

(3) Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

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

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

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

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

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

http://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 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

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

(2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

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

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

B.5 Contractor Testing

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

(2) Test gradation once per 3000 tons of material placed. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

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

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

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

B.6 Test Methods

B.6.1 Gradation

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

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

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

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

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

B.6.2 Fracture

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

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

B.6.3 Liquid Limit and Plasticity

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

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

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

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

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

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

(3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

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

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

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

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

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

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

1. One non-random test on the first day of placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

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

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

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

B.8.3 Independent Assurance

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

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

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

B.9 Dispute Resolution

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

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

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

C (Vacant)

D (Vacant)

E Payment

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

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20151210)

34. Base Aggregate Dense 1¼-Inch for Lower Base Layers.

Replace standard spec 305.2.2.1(2) with the following:

1. Use 1¼-inch base throughout the full base depth.
2. Use ¾-inch base in the top 3 inches of the unpaved portion of shoulders. Use ¾-inch base or 1¼-inch base elsewhere in shoulders.

305-020 (20080902)

35. Backfill Slurry.

This special provision describes furnishing and placing backfill slurry for, but not limited to, removing and abandoning utility pipes and structures, installation of storm sewer, sanitary sewer and water pipes and structures, and exposing existing utility items as shown on the plans.

Use fine aggregate according to standard spec 501.2.5.3 and number 1 coarse aggregate conforming to standard spec 501.2.5.4, and water conforming to standard spec 501.2.4 in the backfill slurry mix. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water to enable the mixture to flow readily. Submit a mix design for the engineers review prior to placement. Backfill Slurry is considered a class III concrete mix and the department will accept the mix by certification and will follow the QMP process per standard spec 716. Mix acceptance and testing in the field is not required.

Prior to placement of backfill slurry provide for positive drainage of the area to be backfilled. Discharge from the truck in a manner to prevent segregation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

Material placed within the roadway foundation as defined in standard spec 101.3 is subject to the quality control for the zone that the material is located in and shall conform to QMP Subgrade article listed elsewhere in this special provision document. Non-conforming slurry will be replaced at no additional cost to the department.

Include backfill slurry used for, but not limited to, removing and abandoning utility pipes and structures, installation of storm sewer, sanitary sewer and water pipes and structures, and exposing existing utility items under appropriate bid items. No separate payment will be made for providing positive drainage of the area to be backfilled; for providing mix design; for furnishing, mixing, transporting and placing backfill slurry, and for QMP certification.

36. Concrete Staining Multi-Color S-40-865, Item 517.1015.S.0001; S-40-866, Item 517.1015.S.0002; S-40-867, Item 517.1015.S.0003; S-40-868, Item 517.1015.S.0004.

A Description

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

B Materials

B.1 Mortar

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

Preblended, Packaged Type II Cement:	TK Products Tri-Mix
	BASF MasterSeal 581 Pearl Gray

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

Acrylic Bonding Admixture:	TK Products TK-225
	Thoro Products Achro 60
	BASF MasterEmaco A660

B.2 Concrete Stain

Use concrete stain manufactured for use on exterior concrete surfaces. Use the following products, or equal as approved by the department:

TK Products 5321 Tri-Sheen Concrete Surfacer, Smooth
TK Products 5342 Tri-Sheen Acrylic
TK Products 1450 Natural Look Urethane Anti-Graffiti Primer
ChemMasters Safe-Cure and Seal EPX
Sherwin-Williams H&C Concrete Stain Solid Color Water Based
Euclid Chemical Tammscoat
Euclid Chemical Tammscoat 35

C Construction

C.1 General

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

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

C.2 Preparation of Concrete Surfaces

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

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

C.3 Staining Concrete Surfaces
Apply the concrete stain according to the manufacturer's recommendations.

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

The color of the staining shall produce a multi-color effect that consists of multiple colors replicating varying natural stone coloration. Stain the joints between stones produced by the form liner to create the appearance of grouted joints.

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

C.4 Test Areas
Prior to applying stain to the structure, apply the stain to sample panels measuring a minimum of 48-inches x 48-inches and constructed to demonstrate workmanship in the use of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining. Submit color samples to the department prior to staining the sample panels. Prepare the concrete surfaces of the sample panels and apply stain using the same materials and in the same manner as proposed for the structure, including staining of the joints between stones produced by the form liner. Do not apply stain to the structure until the department approves the test panels.

C.5 Surfaces to be Coated.
Apply concrete stain to the surfaces according to the plan.

D Measurement
The department will measure Concrete Staining Multi-Color (Structure) by the square foot of surface, acceptably prepared and stained.

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1015.S.0001	Concrete Staining Multi-Color S-40-865	SF
517.1015.S.0002	Concrete Staining Multi-Color S-40-866	SF
517.1015.S.0003	Concrete Staining Multi-Color S-40-867	SF
517.1015.S.0004	Concrete Staining Multi-Color S-40-868	SF

Payment is full compensation for furnishing and applying the coloring system; for preparing the concrete surface; and for constructing and staining the sample panels.
517-115 (20140630)

37. Architectural Surface Treatment S-40-865, Item 517.1050.S.0001; S-40-866, Item 517.1050.S.0002; S-40-867, Item 517.1050.S.0003; S-40-868, Item 517.1050.S.0004.

A Description

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

B Materials

Use form liners that attach easily to the forming system, and do not compress more than ¼-inch when poured at a rate of 10 vertical feet per hour.

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

Wall ties shall have set "break-backs" at a minimum of ¾-inches from the finished concrete surface.

C Construction

C.1 Equipment

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

C.2 Form Liner Preparation

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

Apply form release per manufacturer's recommendations.

C.3 Form Liner Attachment

Place adjacent liners less than ¼-inch from each other, attach liner securely to forms according to the manufacturer's recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

C.4 Surface Finishing
Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

D Measurement
The department will measure Architectural Surface Treatment (Structure) in area by the square foot of architectural surface, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1050.S.0001	Architectural Surface Treatment S-40-865	SF
517.1050.S.0002	Architectural Surface Treatment S-40-866	SF
517.1050.S.0003	Architectural Surface Treatment S-40-867	SF
517.1050.S.0004	Architectural Surface Treatment S-40-868	SF

Payment is full compensation for producing the proposed architectural surface treatment including: preparing the foundation; finishing and protecting the surface treatment; and for properly disposing of surplus material.
517-150 (20110615)

38. Storm Sewer.

Supplement standard spec 204.3.2.2 with the following:

Material placed within storm sewer trenches is subject to the quality control for the zone that the material is being placed and shall conform to QMP Subgrade article listed elsewhere in this special provision document.

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 608.3.1.1 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 608.3.5 with the following:

Material placed within storm sewer trenches is subject to the quality control for the zone that in which the material is located and shall conform to QMP Subgrade article listed elsewhere in this special provision document.

Replace standard spec 608.3.5(1) with the following:

Conform to backfill detail as shown on the plans. Backfill all trenches and excavations immediately after completing storm sewer construction per detail(s) shown on the plans. Backfill all trenches and excavations of all new storm sewer and storm sewer structures not occupied by Backfill Controlled Low Strength or backfill slurry with backfill material conforming to standard spec 209.

Supplement standard spec 608.3 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 a jack or "come-along" if deemed necessary to ensure that the joints are completely tight.

For horizontal elliptical pipe rise greater than 40-inches use a mastic joint compound submitted to and approved by the engineer. 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 providing backfill slurry 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.

Supplement standard spec 608.3 with the following:

608.3.9 Incorporating or Disposing of Excavated Material
(1) Incorporate excavated material in the work to the extent practicable and conforming to standard spec 209. Use materials with suitable engineering properties for riprap or backfill. If the contract contains the Excavation Common or Borrow bid items, and embankment material is needed at the time of disposal, use the balance of the excavated material, with suitable engineering properties, in the embankment.

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

39. Catch Basins, Manholes, and Inlets.

Furnish Grade A concrete conforming to standard spec 501 as modified in standard spec 716.

Provide Ductile Iron Castings for Inlet Covers type V and Inlet Covers type 27-M Bolted conforming to ASTM A536 Grade 80-55-06.

Supplement standard spec 611.3.1 General 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 prior to start 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 furnishing and installing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

Provide bolted covers for drainage structure cover type J Special, V and 27 M Bolted. Weld all other existing and proposed storm sewer structure covers subject to traffic loading according to Welding Sewer Access Covers spec. Remove welds from covers according to Removing Welds from Sewer Access Covers spec and at the direction of engineer when construction is complete.

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 shown on plans for final adjustment of drainage structures located within the freeway concrete pavement, concrete shoulders, concrete curb and gutter and concrete barrier wall. If the adjustment is less than 4-inches, the engineer may choose to direct the contractor to use grade rings for adjustments for storm sewer structures outside the freeway concrete pavement and at other non-freeway locations.

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.

Cost for providing bolted cover types J special, type V and type 27-M are considered incidental to cover type.

Welding covers and removing welds as directed by the engineer are paid under separate bid items.

40. Sign Supports Concrete Masonry.

Add the following to standard spec 636.3.2:

(3) Drill or excavate and maintain a stable open excavation for subsequent installation of drilled footings for sign structure foundations as shown in the plans. The subsurface conditions vary across the project site and are not necessarily the same at each sign structure foundation in the project. Anticipate the possibility of encountering randomly interlaced seams of loose, permeable sand or gravel of substantial thickness situated

within glacial clays and till deposits; saturated soils; ground water; isolated cobbles or boulders; and nested cobbles and boulders at any sign structure foundation when selecting equipment and methods for drilling or otherwise excavating. Partial or full depth temporary casing may be required to maintain the stability of the excavation prior to placement of reinforcement and filling the excavation with concrete.

It is strongly advised to obtain and review the Geotechnical Exploration and Foundation Evaluation Reports for the sign structures and as well as nearby structures to the sign structure foundation being constructed. See article "Geotechnical Investigation Information" in these special provisions for information on obtaining geotechnical reports.

(4) Obstructions are defined as man-made objects that when encountered, stop or significantly impede downward progress of the excavation to less than 12-inches for 60 minutes or longer using conventional excavation techniques or augers operating at normal power, torque and downward thrust. Obstructions include man-made objects and may include, but are not limited to old concrete foundations, piling, abandoned utilities or buried pavements. Obstructions are further classified as "known obstructions" which are identified on the plans, and "unknown obstructions" that may be encountered but are not identified on the plans.

Employ special tools and/or procedures as necessary when obstructions are encountered and the contractor cannot advance the excavation more than 12-inches in 60 minutes using conventional earth augers operating at normal power, torque, and down thrust. Clear the obstructions in such a manner so as not to compromise the sidewall integrity or stability of the drilled, open hole. Special procedures and tools that may be required include, but are not limited to; chisels, breakers, core barrels, air hammer tools, and hand excavation. Other methods for obstruction removal such as temporary casing or hole diameter increase can be employed to aid in the removal if acceptable to the engineer. Blasting is not permitted.

Natural deposits, including boulders, cobbles, nested cobbles and other deposits may be encountered that impede the excavation to less than 12-inches for 60 minutes or longer as noted above for obstructions. Natural deposits, regardless of makeup, depth, configuration, and consistency are not classified as obstructions as defined in this special provision or in the special provision Obstructions Sign Supports Concrete Masonry included in this contract.

Add the following to standard spec 636.3.3:

(8) For drilled foundations, no more than 3 inches of standing water is permitted in the bottom of the drilled excavation immediately prior to placing concrete masonry in the excavation.

Replace standard spec 636.5.2(1) with the following:

Payment for Sign Supports Concrete Masonry is full compensation for providing, transporting, placing and curing the concrete; for providing and removing casing if applicable; for providing required ground rods; for furnishing all required excavating; for clearing natural and known man-made obstructions; for placing post stubs or anchor bolts, and for providing and placing electrical conduit if required; for pumping of ground water seepage if applicable; for cleaning-up, repairing damage, and for disposing of excavation and surplus materials.

Removal of unknown man-made subsurface obstructions for Sign Supports Concrete Masonry will be measured and paid for separately under the bid item, Obstructions Sign Supports Concrete Masonry included in the contract.

41. Signs Type I and II.

Furnish and install new mounting brackets per approved product list for type II signs on overhead sign supports incidental to sign. For type II signs on sign bridges use aluminum vertical support beams noted above incidental to sign. New mounting brackets are incidental to the sign being installed.

Add the following to standard spec 637.2.4:

Use stainless steel bolts, washers and nuts for type I and type II signs mounted on sign bridges or type I signs mounted on overhead sign supports. Use clips on every joint for Sign Plate A 4-6 when mounted on a sign bridge or overhead sign support. Inspect installation of clips and assure bolts and nuts are tightened to manufacturers recommended torque values.

Use aluminum vertical sign support beams that have a 5-inch wide flange and weigh 3.7 pounds per foot, if the L-brackets are 4 inches wide then use 4 inch wide flange beams weighing 3.06 pounds per foot. Contractor shall measure the width of the L-brackets on existing structures of determine the width needed for sign support beams

Use beams a minimum of six feet in length or equal to the height of the sign to be supported, whichever is greater. Use U-bolts that are made of stainless steel, one-half inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

For type II signs on overhead sign supports follow the approved product list for mounting brackets.

Replace standard spec 637.2.4.1(2)2 with the following:

Clips may be either stainless steel or ASTM B 108, aluminum alloy, 356.0-T6.

Add the following to standard spec 637.3.3.2(2):

Install Type I Signs at the offset stated in the plan, which shall be the clear distance between the edge of mainline pavement right edgeline and the near edge of the sign.

Add the following to standard spec 637.3.3.3(3):

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type I or Type II Signs and Type I signs on overhead sign supports incidental to sign. New I-beams are incidental to the sign being installed.

Add the following to standard spec 641.2.9(3):

Submit an additional set of shop drawings for sign bridges and overhead sign supports to SE Region, Traffic Operations Engineer

637-SER1 (20120401)Rev

42. Field Facilities.

Replace standard spec 642 with the following:

The department has procured its own Field Facilities located at 2424 S. 102nd Street; West Allis, WI 53227.

SEF-ZOO IC 12_0723

43. Traffic Control.

The work under this item shall be according to the pertinent requirements of standard spec 643, as shown on the plans, or as approved by the engineer, except as hereinafter set forth.

Place traffic control devices for work in the proper location before operations proceed. Traffic Control is subject to change at the direction of the engineer in the event of an emergency.

Provide the Milwaukee County Sheriff's Department, City of Wauwatosa Police Department, Wisconsin State Patrol, the Statewide Traffic Operations Center 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 traffic control safety hazard develops.

Do not park or store equipment, vehicles, or construction materials within 30 feet of the edge of freeway traffic lanes without barrier separation for any roadway carrying freeway traffic; or within 20 feet off the edge of a freeway service interchange ramp during any time except as approved by the engineer. At such locations, the materials and equipment involved shall not constitute a hazard to the traveling public.

Do not store materials, equipment, or park vehicles within 4 feet of barrier wall that has not been pinned.

Do not park personal vehicles within the access control limits of the freeway. Do not cross live freeway traffic lanes with equipment or vehicles.

Yield to all through traffic at all locations. Equip the top of all contractor and personal vehicles and equipment operating in 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.

Do not use flag persons to direct, control, or stop freeway or ramp traffic. Obtain approval from the engineer to use a flag person to direct, control, or stop local street traffic.

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

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

A Description

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

B Materials

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

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

C Construction

C.1 General

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

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

C.2 Groove Depth

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

C.3 Groove Width – Longitudinal Markings

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

C.4 Groove Position

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

C.5 Groove Cleaning

C.5.1 Concrete

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

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and the pavement marking tape. Use a high-pressure air blower with at least 185 ft^3/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

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

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

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

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

1) For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:

   - Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations..

   - Apply P-50 during October 1 to April 30, both dates inclusive. –

2) For the remainder counties:

   - Apply either adhesive.

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

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

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

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

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

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

45. Late Season Marking Requirements.

Replace standard spec 646.3.1.4(1) with the following:

Do not place wet reflective contrast tape marking after November 15 and before April 15 of the following calendar year unless both air and surface temperatures are 40 degrees F and rising. If those conditions are not met, apply epoxy marking material from the department's approved products list in the exact locations the plans show for wet reflective

contrast tape. Maintain that marking until April 15. Then, unless the engineer allows otherwise, completely remove while installing wet reflective contrast tape.

SEF 14_0312

46. Install Conduit Into Existing Item, Item 652.0700.S.

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Use nonmetallic conduit, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for the entering conduit(s) at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

The department will measure Install Conduit Into Existing System by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	Each

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.

652-070 (20100709)

47. Ramp Closure Gates Hardwired 24-FT, Item 662.1024.S; Ramp Closure Gates Hardwired 32-FT, Item 662.1032.S; Ramp Closure Gates Hardwired 37-FT, Item 662.1037.S.

A Description

This special provision describes providing hardwired freeway on-ramp closure gates on type 5 steel luminaire poles. This special provision also describes furnishing and delivering spare gate arms and flashers.

B Materials

B.1 General

Provide five user manuals and a listing of vendors and contact information for each manufactured component including flasher electrical components.

The engineer may allow alternates equal to specified manufactured components. The engineer may require plan detail modifications to accommodate alternates. The engineer may accept alternate arms or mounting adaptors only if the contractor can demonstrate that the department can easily remove and replace the arms.

B.2 Components

Furnish type 5 steel poles designed to carry twin 15-foot luminaire arms and conforming to standard spec 657 and with dimensions for acceptable installation of the ramp gate hardware as shown on the detail. Ensure a contiguous pole by eliminating the hand hole near base of pole, thus allowing uninhibited mounting of the gate pivot assembly.

Furnish galvanized steel nuts and bolts conforming to ASTM A307 except where designated as high strength (HS), conform to ASTM A325. For the ramp closure gate locking mechanism, furnish a handle nut to fit on a 3/4-inch.

Furnish grade A36 steel for the gate supports, gate pivot assembly, and associated hardware galvanized after fabrication by either a mechanical or hot-dip process. Grind welded connections, rough edges, and burrs smooth before galvanizing to ensure a finished appearance. Ensure that the galvanized coating conforms to ASTM A 153.

Provide aluminum/fiberglass gate arms of the nominal length the bid item indicates and conforming to plan dimensions. Cover gate arms on two sides with alternating red and white shop-applied type H reflective from the department's approved products list. Also provide a shear pin base that is the manufacturer’s “permanent pivot” style. Obtain components from:

B&B Roadway
15191 Hwy 243
Russellville, AL 35654
Tel: (888) 560-2060

Gate arm: model MU605

Furnish a worm gear winch with a single line vertical lift capacity of 2000 lbs. Ensure that the winch has hardened steel gears, a handgrip, permanently lubricated bearings, a reinforced arc-welded reel assembly, and mounting plate. Ensure that the winch can be mounted to the winch mount plate shown on the construction details and the handgrip can be operated without conflict with the pole or ramp gate assembly. Furnish a 2-inch outdoor rated, rot resistant polyester strap for the connection between the worm gear winch and the gate arm pivot assembly.

Furnish hardwire power system and connections conforming to the following:

1. Cabinet
   Furnish cabinet assemblies, power wire terminal strips, and power supplies for the on-ramp closure gate systems.

   The cabinet shall be the following dimensions: 9-inches wide, 15-inches high, and 5-inches deep.

   Minimum wall thickness of the aluminum castings shall be 3/16-inch.

   Cabinet body shall have a cast rain hood over the top of the door opening.

   Hinges shall consist of 3/6-inch diameter pins in cast hinge bosses that allow door to swing no less than 180º when open.

   Cabinet shall be capable of being field prepared for top, bottom, or rear mounting and wire entrance holes.

   Set screws shall be stainless steel.

   Assembly shall be water resistant by the door flange in full contact with and compressing a neoprene gasket held by an adhesive to a groove cast into the cabinet body.

   The cabinets shall consist of a cabinet body, door, and latch cast from aluminum alloy 319 or approved equivalent The door lock shall be a standard police lock reinforced with a steel plat which is keyed the same as the standard traffic control cabinets. The cast shall be free of voids, pits, dents, molding sand, and excessive foundry grinding marks. All radii shall be smooth and intact. Exterior and interior surfaces shall be smooth and cosmetically acceptable, free of molding fins, cracks, and other blemishes.

   The aluminum shall meet the following minimum requirements:
   - Yield Strength – 18 ksi
   - Tensile Strength – 27 ksi
   - Brinell Hardness – 70
   - Elongation (% in 2 inches) – 2

The assembly shall have an alodine conversion coating to provide corrosion resistance and a proper base for paint adhesion.

Furnish a stainless steel or anodized steel mounting adapter plate to mount the cabinet to a pole with stainless steel banding straps.

2. Power Converter
   Furnish the cabinet with a 120 VAC to 12 VDC power converter.

   Furnish the cabinet with a 10 position terminal block for the 12 VDC power distribution. Power wire terminal strips 10 position feed-through terminal blocks UL recognized for No. 22 AWG wire through No. 16 AWG wire and UL rated for 15 amps. The terminals shall be tin-plated brass with brass clips and clamps.

Furnish gate flasher assemblies conforming to the following:

1. A 2-conductor connector, rated 12 volts at 5 amps minimum.

2. A 2-amp weather resistant in-line fuse and fuse holder.

3. Wiring harness made from 6-conductor 14 AWG stranded insulated control cable.

4. A 12 V flasher controller, capable of providing LED flashers with 5% to 100% duty cycle at a one-second pulse repetition rate.

5. A 4-conductor male/female electrical connector pair, 10 amp capacity for each connection, weather resistant, and mounted to allow rapid gate arm replacement.

6. A 5-amp mercury switch with less than 3 ohms “on” resistance and a 20 to 30 degree activation angle. Mount the switch on the gate arm to activate the flashers when the gate arm is lowered more than 45 degrees from vertical.

7. Furnish red LED flashers meeting the requirements of the MUTCD and/or AREMA standards for hue and brightness.

Power consumption	0.45 amp @ 10.5 V
Life expectancy	100,000 hrs
Directionality	0-degree cone orthogonal to face of flasher
Compliance temperature	-40° C to +70° C

Furnish electrical wires with jackets conforming to the following color scheme throughout the ramp closure gate system:

- Hot = Black or Red
- Neutral = White
- Ground = Green

Furnish a weatherproof hardened steel padlock with a minimum 2 1/4-inch shackle height and user programmable 4-digit combination.

C Construction

C.1 Ramp Closure Gates

Under the Ramp Closure Gates bid items, provide ramp closure gate at the locations the plans show. Apply marine grade anti seize compound compound to all bolt threads and to the interface between the aluminum base and steel pole. The engineer may direct adjustment of the gate arm assembly to ensure the correct vertical and angular orientation of the completed closure gate.

Install cabinet with power supply, flasher controller, and other components. Connect the 120 VAC to 12 VDC power supply to the circuit breaker in the breaker disconnect box. Connect the 120 VAC to 12 VDC power supply to the 10-position terminal block and connect the 12 VDC components to the terminal block.

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

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

Install structure identification plaques in the location the plan details show.

Contact Rebecca Klein (262) 822-5947, with questions regarding identification numbers

D Measurement

The department will measure the Ramp Closure Gates Hardwired bid items as each individual installation, 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
662.1024.S	Ramp Closure Gates Hardwired 24-FT	Each
662.1032.S	Ramp Closure Gates Hardwired 32-FT	Each
662.1037.S	Ramp Closure Gates Hardwired 37-FT	Each

Payment for the Ramp Closure Gate Hardwired bid items is full compensation for providing ramp closure gates including support poles; for gate arm assemblies including guides, collars, and gate arms;for cabinets, wiring, and power converters; for structure identification plaques; for gate flashers; and for padlock.
662-005 (2014630)

48. Intelligent Transportation Systems – General Requirements.

A Description

A.1 General

This contract includes furnishing and installing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as shown on the plans.

Unusual aspects of this project include:

- The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
- The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment prior to installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification

Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16-inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. **Electrical Power:**
    a. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
    b. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
    c. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
5. **Temperature and Humidity:**
    a. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
    b. **Equipment in Controlled Environments** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable(s) entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage, and clamp the voltage between each wire and ground at 50 volts.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for the labeling method(s) prior to use.

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Statewide Traffic Operations Center or in communication hubs, which are not contained within a single cabinet, shall have at least 10 feet of slack.

C.4 System Operations
If the contractor's operations unexpectedly interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

C.5 Surge Protection
Arrange the equipment and cabinet wiring to minimize the distance between each conductor's point of entry and its protector. Locate the protector as far as possible from electronic equipment. Ensure that all wiring between the surge protectors and the point of entry is free from sharp bends.

D Measurement
No separate measurement will be made for the work described in this article.

E Payment
No separate payment will be made for the work described in this article. All work described in this article shall be included under the ITS items in the contract.
670-010 (20100709)

49. EBS Excavation, Item SPV.0035.0100.

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.

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.

If undercutting designated slopes to provide for placing topsoil or salvaged topsoil, the undercut is incidental to the Topsoil or Salvaged Topsoil bid items.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.0100	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.

50. EBS Backfill, Item SPV.0035.0101.

A Description
This special provision describes backfilling EBS Excavation with select crushed material.

B Materials
Furnish all materials according to standard spec 312.2 and as hereinafter provided.

C Construction
Place select crushed material where EBS Excavation was performed or as the engineer directs. Compact select crushed material 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.0035.0101	EBS Backfill	CY

Payment for EBS Backfill is full compensation for providing and compacting select crushed material 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.

51. Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.1002.

A Description

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

B Materials

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

C Construction

Provide pull boxes, frames, and lids made of non-conductive materials. The contractor may extend Pull Box Non-Conductive 24x42-Inch as the plan details show using the same material as the pull box. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under standard spec 205.3.12. Use covers stamped with "Electric" for traffic signal and lighting pull boxes or "WISDOT COMMUNICATIONS" for communications pull boxes.

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1002	Pull Box Non-Conductive 24x42-Inch	Each

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

52. Relocating Light Poles, Arms and Luminaires, Item SPV.0060.1019.

A Description

The work under this item shall consist of removing lighting pole, arm and luminaire from the locations shown in the plans, properly storing lighting pole, arm and luminaire on site or at the contractor's shop and reinstalling the lighting pole, arm and luminaire at a new location as shown in the plans, according to the applicable provisions of standard spec 204 and 651 through 657 or delivering the units to a specific location.

B (Vacant)

C Construction

Inspect the pole prior to removing from the existing base. Inform the engineer of any items of concern or potential problems that may interfere with the reuse of the pole, arm or luminaire. Minimize the time between removal from the existing base and reinstallation on the new base. Bases will be paid as a separate item and are not included herein. Properly store the pole, arm and luminaire assembly in a safe and secure location until reinstalled on the project, either on site or at the contractor's shop where it is protected from damage, vandalism or theft. Maintain all materials in a condition suitable for reutilization. Replace all items damaged during construction operations at no cost to the department.

D Measurement

The department will measure Relocating Light Poles, Arms and Luminaires by each individual light pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1019	Relocating Light Poles, Arms and Luminaires	Each

Payment is full compensation for disconnecting any necessary wiring; removing the poles and equipment mounted on the poles, properly storing the poles, reinstalling the poles, arms and luminaires and reconnecting any necessary wiring.

53. Pull Boxes Polymer Concrete Wauwatosa 17x30-Inch, Item SPV.0060.1161.

A Description

The work under this item consists of furnishing and installing 17 x 30-inch polymer concrete pull boxes at the locations shown. Pull boxes shall be installed in accordance with standard spec 653.

B Materials

Pull boxes shall have a nominal 17 x 30-inch top size with a larger nominal 24 x 37-inch open bottom size. The larger bottom size is to minimize frost heaving of the pull box. Units shall be a minimum 18-inches deep. The units shall be capable of being stacked with other pull boxes of this size. The pull boxes and covers shall be constructed of a polymer concrete designed to withstand a Tier 15 load test of 22,500 pounds. Covers shall be gasketed and have a logo of "STREET LIGHTING". Cover bolts shall be stainless steel with a pentahead. Provide one pentahead socket and one extra cover per project. Cost of the socket and extra cover to be incidental to the cost of the pull boxes.

C Construction

Conform to construction requirements for standard pull box items. In addition, furnish and install 0.5 cubic yard of #2 course stone aggregate under the pull box. The stone shall be a minimum of 12-inches deep under the whole pull box. The stone shall be in accordance with standard spec 501. Install DOT Type DF Schedule C geotextile under the pull box. Geotextile to conform to standard spec 645.2.4. Tape the geotextile to the sides of the pull box before backfilling. If conduits penetrate the geotextile, secure the textile around the conduits with stainless steel hose clamps to minimize any ground water entering the pull box without being filtered by the geotextile. All conduits entering the pull box shall have bell fittings to prevent damage to wires.

D Measurement

The department will measure Pull Boxes Polymer Concrete Wauwatosa 17x30-Inch by each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1161	Pull Boxes Polymer Concrete Wauwatosa 17x30-Inch	Each

Payment for the Pull Boxes Polymer Concrete Wauwatosa 17x30-Inch bid item is full compensation for providing pull boxes; for materials including grounding lugs; for geotextile; for aggregate, for pull box covers; for cover bolts; for required pull box extensions; conduit extensions less than 10 feet long including fittings; and for all excavating, backfilling, and disposing of surplus material.

54. Ground Rod, Item SPV.0060.2001.

A Description
This special provision describes installing a ground rod and ground wire.

B Materials
Ground rod shall be copper clad steel with cladding 13 mils thick. The minimum diameter is 5/8-inch and the minimum length is eight feet. Ground wire shall be AWG # 6 bare, solid copper.

C Construction
Use exothermic welding to connect the ground wire to the rod. Install the rod vertically, or as close to vertical as conditions permit. Select locations with moist soil, if available. Place the rod at least six feet from all other ground rods.

D Measurement
The department will measure Ground Rod by each unit, acceptably installed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2001	Ground Rod	Each

Payment is full compensation for installation of the ground rod and ground wire; welding and connections at both ends of the ground wire.

55. Salvage Microwave Detector Assembly, Item SPV.0060.2002.

A Description
This special provision describes salvaging an existing Microwave Detector Assembly according to the pertinent provisions of standard spec 655, 656, 657, and 675, the Wisconsin Electrical Code, as shown on the plans and as hereinafter provided.

B Materials
Materials included in Microwave Detector Assembly are:

1. Microwave Detector(s).
2. Type 5 Pole.
3. Transformer Base.
4. Mounting Hardware.

C Construction
Remove Microwave Detector Assembly at the locations shown in the plans, or as directed by the engineer. Store the Microwave Detector Assemblies in a safe and secure location until reinstalled on the project. Maintain all materials in a condition suitable for reutilization. Replace all items damaged during construction operations at no cost to the department.

Electrical work under this item shall be completed by a journeyman electrician or be completed under the supervision of a journeyman electrician. Legal status or standing as a journeyman electrician shall be certified or otherwise documented to the engineer before any electrical work may begin.

D Measurement
The department will measure Salvage Microwave Detector Assembly by each individual unit, acceptably removed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2002	Salvage Microwave Detector Assembly	Each

Payment is full compensation for removal and storage of the Microwave Detector Assembly; disconnecting all wiring connections; removing all conduit connections; for any necessary restoration, including backfill, topsoil, and seeding.

56. Install Salvaged Microwave Detector Assembly, Item SPV.0060.2003.

A Description
This special provision describes installing a salvaged Microwave Detector Assembly according to the pertinent provisions of standard spec 655, 656, 657, and 675, the Wisconsin Electrical Code, as shown on the plans and as hereinafter provided.

B Materials
Materials included in Salvaged Microwave Detector Assembly are:

1. Microwave Detector(s).
2. Type 5 Pole.
3. Transformer Base.
4. Mounting Hardware.

C Construction
Transport the salvaged microwave Detector Assembly from its stored location to the project site.

Electrical work under this item shall be completed by a journeyman electrician or be completed under the supervision of a journeyman electrician. Legal status or standing as a journeyman electrician shall be certified or otherwise documented to the engineer before any electrical work may begin.

D Measurement
The department will measure Install Salvaged Microwave Detector Assembly by each individual unit, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2003	Install Salvaged Microwave Detector Assembly	Each

Payment is full compensation for transportation of the salvaged Microwave Detector Assembly to the project location; installation of the Microwave Detector Assembly; making all wiring connections and conduit connections; and for any necessary restoration, including backfill, topsoil, and seeding.

57. Salvage Advance Flasher Assembly Type 1, Item SPV.0060.2004.

A Description

Remove and salvage advance flasher assemblies at the locations shown on the plan and as directed by the engineer. Disconnect all wiring in the control cabinet as necessary according to standard spec 676.

B Materials

Salvaged materials include:

1. Pedestal base
2. Traffic Signal Standard Pole
3. Signal assemblies
4. Signs
5. Wiring within the assembly
6. Mounting hardware

Materials are to be salvaged and stored for reinstallation through other pay items in the contract.

C Construction

Do not begin any salvage or removal work until directed or approved by the engineer.

Inspect the existing assemblies for damage and defects with the engineer prior to beginning any removal work. Note any damage or defect. Any damage or defect discovered after work has begun will be assumed to be caused by the contractor and will be remedied by the contractor with no additional payment.

Disconnect, or otherwise de-energize, the wiring from the control cabinet to the existing advance flasher assembly so that the existing system may be salvaged safely.

Remove existing pedestal base, pole, signal assemblies, signs, wiring, and mounting hardware as an assembled unit or as individual components.

Safely store salvaged materials until reinstalled. Return equipment not reinstalled on the project to the department. Coordinate with John Mittelstadt, (414) 227-4665 on a schedule and location to have the removed items delivered.

D Measurement
The department will measure Salvage Advance Flasher Assembly Type 1 by each unit, acceptably removed and stored for reinstallation.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2004	Salvage Advance Flasher Assembly Type 1	Each

Payment is full compensation for removing and salvaging advance flasher assemblies; for rewiring, as necessary; for disconnecting wiring as necessary in the controller cabinet; and for properly disposing of unused materials.

Removal of concrete bases associated with this item will be measured and paid for separately.

58. Install Salvaged Advance Flasher Assembly Type 1, Item SPV.0060.2005.

A Description
Reinstall advance flasher assemblies at the locations shown on the plan and as directed by the engineer. Rewire, and reconnect all wiring in the control cabinet as necessary according to standard spec 676.

B Materials
Materials are salvaged through other pay items in the contract.

Salvaged materials include:
1. Pedestal base
2. Traffic Signal Standard Pole
3. Signal assemblies
4. Signs
5. Wiring within the assembly
6. Mounting hardware

C Construction
Reinstall materials as an assembled unit or as individual components to make a fully functional advance flasher assembly in the location shown on the plans or as directed by the engineer.

Reconnect the wiring from the control cabinet to the advance flasher assembly.

D Measurement
The department will measure Install Salvaged Advance Flasher Assembly Type 1 by each unit, acceptably installed and made operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2005	Install Salvaged Advance Flasher Assembly Type 1	Each

Payment is full compensation for rewiring as necessary; for reinstalling the assemblies; for reconnecting to new or existing wiring; and for properly disposing of unused materials.

Construction of new concrete bases will be paid for separately.

59. Install Salvaged Advance Flasher Assembly Type 2, Item SPV.0060.2006.

A Description

Reinstall advance flasher assemblies at the locations shown on the plan and as directed by the engineer. Rewire, and reconnect all wiring in the control cabinet as necessary according to standard spec 676 of the standard spec.

B Materials

Materials are a combination existing, new, and salvaged through other pay items in the contract.

Existing materials include an existing light pole.

Furnish new metallic conduit and fittings, new traffic signal mounting brackets, new traffic signal cable pig-tails from traffic signal heads to the adjacent pull box, and a new epoxy splice enclosure. All new materials must meet the requirements of standard spec 652.2 and 655.2.

Salvaged materials include traffic signal heads and signs.

C Construction

Reinstall materials as an assembled unit or as individual components to make a fully functional advance flasher assembly in the location shown on the plans or as directed by the engineer.

Reconnect the wiring from the control cabinet to the advance flasher assembly in the adjacent pull box in a new epoxy splice enclosure.

Complete all work under this item to meet the requirements of standard spec 676.3.

D Measurement

The department will measure Install Salvaged Advance Flasher Assembly Type 2 by each unit, acceptably installed and made operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2006	Install Salvaged Advance Flasher Assembly Type 2	Each

Payment is full compensation for rewiring, as necessary; for reinstalling the assemblies; for furnishing necessary new materials; for reconnecting to new or existing wiring; and for properly disposing of unused materials.

Construction of new concrete bases will be paid for separately.

60. Removing On-Ramp Closure Gate, Item SPV.0060.2007.

A Description

This special provision describes removing and salvaging an existing on-ramp closure gate, delivering salvaged material to the department and disposing of materials appropriately off the project site.

B Materials

Existing pole, transformer base, gate arm, winch assembly, LED flashers, wiring, and other components of the existing on-ramp closure gate assembly.

C Construction

Prior to beginning work on removing the on-ramp closure gate, turn off the power to the gate at the adjacent cabinet that supplies the power, and disconnect the power conductors.

Once the power has been turned off and the conductors disconnected, it is the contractor's decision regarding whether to remove the gate arm, winch, and other hardware from the pole prior to removal, or to remove as one assembly.

Salvage and store all removed materials until delivered to the department. Coordinate with John Mittelstadt, (414) 227-4665 on a schedule and location to have the removed items delivered. Maintain all materials in a condition suitable for reutilization. Replace all items damaged during construction operations at no cost to the department.

D Measurement

The department will measure Removing On-Ramp Closure Gate as each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2007	Removing On-Ramp Closure Gate	Each

Payment is full compensation for disconnecting any necessary wiring; removing the poles and equipment mounted on the poles and delivering to the department, and disposing of unwanted material appropriately off the job site.

The concrete base removal is paid for under a separate pay item.

61. Hydrant Relocation, Item SPV.0060.5001.

A Description

This specification describes relocating existing hydrants at locations indicated in the plans, conforming to the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition and as hereinafter provided.

B Materials

B.1 Hydrant Relocation

Salvage and reinstall water main hydrant and furnish new 6-inch diameter D.I.W.M. CL 53 meeting the requirements of the City of Wauwatosa.

Hydrant shall be an AWWA C502 hydrant with all operating nuts and hose connections meeting City of Wauwatosa size requirements.

B.2 Fittings

Fittings shall conform to AWWA C110, centrifugally cast in metal or sand-lined molds.

Use of compact fittings conforming to AWWA C153 is acceptable.

In no case shall fitting grade rating less than adjoining pipe.

Fittings shall be from same manufacturer as pipe.

Nuts and bolts for joints and fittings shall be corrosion resistant steel, NSS Technologies, Inc. Cor-Blue or approved equal.

B.5 Polyethylene Sheeting for Pipe Corrosion Protection

Furnish polyethylene sheeting conforming to ASTM D4976, Type I, Class B, color black, Grade E-1, 1200 psi tensile strength, minimum thickness of 8 mil. Tube diameter or sheet width shall conform to AWWA C105.

Furnish tape for polyethylene sheeting that is 2-inch wide, black tape with rubber adhesive and minimum 9 mil polyethylene backing. Tape shall be 3M™ Preservation Sealing Tape 481 or Scapa Preservation Tape 136 or an approved equal.

C Construction

C.1 General

According to Wisconsin Statute 182.0175, "Damage to Transmission Facilities," Excavator, as defined in 182.0175(1) (bm), shall be solely responsible to provide advance notice to “Diggers Hotline, Inc.” (800) 242-8511, not less than three working days prior to

commencement of any Excavation, as defined in the statute, required to perform work contained in this project, and further, Excavator shall comply with all other requirements of this Statute relative to Excavation.

C.2 Installation of Hydrant Relocation
Salvage and reinstall existing hydrant and provide new fittings.

Place crushed clear stone below base of re-located hydrant to 6 inches above drain holes in hydrant stem.

Solidly buttress new hydrant against trench wall.

Join pipe and fittings by means of a rubber gasket push-on joints conforming to AWWA C111.

D Measurement
The department will measure Hydrant Relocation by each hydrant salvaged and reinstalled, 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.0060.5001	Hydrant Relocation	Each

Payment is full compensation for furnishing all materials and fittings; excavating, relocating the hydrant, backfilling, and for compacting.

62. Pavement Cleanup Project 1060-34-87, Item SPV.0075.0002.

A Description
This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site. Pavement Cleanup includes surveillance and reporting of all active haul routes.

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.

Utilize 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 herein 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 if they needed to be swept in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities. Clean up spillage and material tracked to/from the project within an hour of occurrence or as directed by the engineer. Perform cleanup operations in a safe manner.

C.2 Pavement Cleanup

Keep all pavements, curb lanes and gutters both closed and open to public traffic within the job-site boundaries free of dust and debris generated from any activity under the contract. Keep all pavements, curb lanes and gutters adjacent to the project free of dust and debris that are affected by land disturbing, dust generating activities, as defined in the contractor's dust control implementation plan.

Provide routine sweeping of all pavements, curb lanes and gutters on local street active haul routes a minimum of once a day as defined in the Dust Control Implementation Plan (DCIP) or as directed by the engineer. Include the following roadways for routine sweeping:

- Entrance Ramps to I-41/US45
- Watertown Plank Road (Discovery Parkway to Swan Blvd.)
- Swan Boulevard (Watertown Plank Road to Discovery Parkway)
- Discovery Parkway (Swan Blvd. to Watertown Plank Road)
- And any other roadways approved by the department

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to deal with 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. Respond to emergency sweeping requests within 4 hours of notice.

D Measurement

The department will measure Pavement Cleanup 1060-34-87 by the hour, acceptably completed.

Tickets shall include date, company, operator name, equipment make/model, routes swept, and total hours. Total hours shall be to the nearest 0.25 hour that work under this item was performed.

Compensation for mobilizing equipment shall be included in the contract price for Pavement Cleanup and no additional compensation therefore will be allowed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.0002	Pavement Cleanup Project 1060-34-87	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.

63. Obstructions Sign Supports Concrete Masonry, Item SPV.0075.4000.

A Description

A.1 General

The work included herein consists of removing, drilling, or coring through unknown, and unidentified, man-made subsurface obstructions when encountered for construction of drilled shaft footings for concrete masonry sign supports.

A.2 Definitions

Surface obstructions are defined as any objects, man-made or naturally deposited, encountered within 6 feet of the ground surface. Subsurface obstructions are defined as man-made obstructions that are encountered by the drilling equipment at a depth greater than 6 feet below the ground surface. Obstructions include only man-made materials, such as old concrete foundations or abandoned utilities. Known obstructions are man-made obstructions that are shown or identified in the plans. Unknown obstructions are man-made obstructions that are not shown or identified in the plans. Naturally occurring deposits such as rock, boulders, cobbles, nested cobbles and nested boulders, are not considered obstructions and therefore are not applicable to the provision of this pay item.

B (Vacant)

C Construction

Remove surface and subsurface obstructions at drilled shaft locations. For drilling associated with the construction of sign supports, use special tools and/or procedures when the contractor cannot advance the hole more than 12 inches in 60 minutes using conventional earth augers operating at maximum power, torque, and down thrust. Special procedures and/or tools may be required but are not limited to chisels, breakers, core barrels, air hammer tools, and hand excavation. Other methods for obstruction removal can be employed to aid in the removal if acceptable to the engineer. Blasting is not permitted.

When an unknown subsurface obstruction is encountered, notify the engineer prior to beginning any work to remove the obstruction.

D Measurement

The department will measure Obstructions (Type) by the hour for each hour the contractor actively spends removing or coring through unknown man-made subsurface obstructions. A quantity of one hour will be paid upon the determination that a subsurface obstruction is encountered based on lack of hole advancement with conventional tools as set forth in this specification. Upon removal of the unknown man-made subsurface obstruction, portions of the final hour measured will be rounded up to the next whole hour. Down time spent planning for subsurface obstruction removal or delays caused by the mobilization of special equipment and tools not readily available at the site will not be measured for payment.

Measurement Example		Paid Obstruction Hours
1	Drilling encounters possible obstruction. Contractor notifies engineer. Start clock.	0.00
2	Conventional drilling equipment does not advance 12 inches after attempting to do so for at least 60 minutes.	1.00
3	Contractor resumes work clearing obstruction the following day. Assume the obstruction is cleared in aggregate total of 1 hour and 15 minutes of time. Obstruction is identified to be a previously unknown and unidentified man-made obstruction.	2.00

Only unknown (not identified in the plans), man-made subsurface obstructions, will be measured for payment. Work to clear and remove surface obstructions, known obstructions identified on the plans, and any natural deposits (rock, boulders, cobbles, nested cobbles and nested boulders) will not be measured separately for payment and shall be included in the applicable items for Sign Supports Concrete Masonry.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.4000	Obstructions Sign Supports Concrete Masonry	HRS

Payment is full compensation for removal and disposal of unknown, man-made subsurface obstructions; and for furnishing all additional concrete and incidentals necessary to complete the work.

64. Concrete Curb and Gutter 55-Inch, Item SPV.0090.0016.

A Description

Perform this work according to the pertinent requirements of standard spec 601 and conform to the construction detail shown in the plans.

B Materials

Use materials as described in the construction detail shown in the plans and as described in standard spec 601.2.

C Construction

Perform work according to standard spec 601.3.

D Measurement

The department will measure Concrete Curb and Gutter 55-Inch by the linear foot, acceptably completed, measured along the flow line of the gutter.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0016	Concrete Curb and Gutter 55-Inch	LF

Payment is full compensation for preparing the foundation; all special construction required at driveway entrances or curb ramps; for providing all materials, including concrete, and expansion joints; and for placing, finishing, protecting, and curing concrete.

65. Pipe Underdrain 6-Inch Special, Item SPV.0090.0126.

A Description

This work shall consist of providing necessary subsurface drainage by constructing trenches, placing the required geotextile fabric, installing the designated pipes or drainage devices within, cored connections, back-plastering and or mortaring connections to storm sewer structures, and backfilling the trenches with the specified backfill material according to standard spec 310, 612 and 645, as shown on the plans, and as hereinafter provided.

B Materials

B.1 Base Aggregate

All aggregate shall be base aggregate open graded and shall conform to standard spec 310.2.

B.2 Pipe Underdrain

Conform to standard spec 612.2.

B.3 Geotextile Fabric

Geotextile fabric shall consist of Type DF Schedule A and shall conform to standard spec 645.2.4.

C Construction

Conform to standard spec 612.3.

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.0090.0126	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, cored connections, back-plastering and or mortaring connection to storm sewer structure, fittings, and caps or plugs; for furnishing all excavating, plowing, and re-compacting, salvaging; disposing of surplus material; and for restoring the work site. No additional payment will be made for base aggregate open graded.

66. Concrete Curb and Gutter 6-Inch Sloped 60-Inch Type A, Item SPV.0090.0152.

A Description
This special provision describes constructing curb and gutter work that shall be according to the pertinent provisions of standard spec 601, the plan details and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Concrete Curb and Gutter 6-Inch Sloped 60-Inch Type A by the linear foot, acceptably completed, measured along the flow line of the gutter.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0152	Concrete Curb and Gutter 6-Inch Sloped 60-Inch Type A	LF

Payment is full compensation for preparing the foundation; all special construction required at driveway entrances or curb ramps; for providing all materials, including concrete, expansion joints, and tie bars in unhardened concrete; for placing, finishing, protecting, and curing concrete and for sawing joints.

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67. Pavement Marking Contrast Epoxy 11-Inch, Item SPV.0090.0310.

A Description
This special provision describes furnishing and installing contrast epoxy pavement marking according to standard spec 646.

B (Vacant)

C Construction
Pavement Marking Contrast Epoxy 11-inch shall consist of an 8-inch wide white epoxy line between two 1 ½-inch black epoxy lines for a total width of 11 inches. Construct epoxy pavement marking according to the pertinent requirements of standard spec 646.3.

D Measurement
The department will measure Pavement Marking Contrast Epoxy 11-Inch by the linear foot of 11-inch wide line, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0310	Pavement Marking Contrast Epoxy 11-Inch	LF

Payment is full compensation as specified in standard specs 646.5 (2), (4) and (5).

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68. Removing Overhead Sign Support S-40-964 Item SPV.0105.0001, S-40-984 Item SPV.0105.0002, S-40-961 Item SPV.0105.0003, S-40-985 Item SPV.0105.0004.

A Description
This special provision describes removing an existing overhead sign structure and footing. Removal of the sign on the structure is paid for under a separate pay item. See signing plans for location.

B (Vacant)

C Construction
Remove overhead sign supports and concrete footings, backfill the resulting holes, and dispose of all materials outside of the right-of-way according to Standard specs 204.3 and 638.3. Remove the concrete footing to 2' below the existing ground for Overhead Sign Supports S-40-964, S-40-984 and S-40-961. For S-40-985, remove the concrete footing to 5’ below existing ground. Cut off the reinforcement flush with the top of the concrete and backfill the hole. Cover the disturbed area with topsoil and seed and mulch. This is all incidental to Removing Overhead Sign Support.

D Measurement
The department will measure Removing Overhead Sign Support, as a single lump sum unit of work in place and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0001	Removing Overhead Sign Support S-40-964	LS
SPV.0105.0002	Removing Overhead Sign Support S-40-984	LS
SPV.0105.0003	Removing Overhead Sign Support S-40-961	LS
SPV.0105.0004	Removing Overhead Sign Support S-40-985	LS

Payment in full compensation for disassembling and removing the overhead sign structure; removing the support structure, including concrete footings; removing the reinforcement; backfilling; topsoil; seed; mulch; and disposal of all materials.
638-SER1 (20040405)

69. Survey Project 1060-34-87, Item SPV.0105.0007.

A Description
Perform work conforming to standard spec 105.6 and 650. This special provision describes modifying standard spec 105.6 and 650 and as follows to define the requirements for construction staking for this contract.

Replace standard spec 105.6.2 with the following:

The department will not perform any construction staking for this contract. Obtain engineer's approval prior to performing all survey required to lay out and construct the work under this contract.

The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, pipe culverts, drainage structures, structure layout, bridges, noise barriers, 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, ponds, traffic signals, ITS, FTMS, parking lots, paths, utilities, conduit, water main, sanitary sewer, booster stations, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

The department may choose to perform quality assurance surveys during the project. These quality assurance surveys do not relieve the responsibility for performing all survey work required to lay out and construct the work under this contract.

Delete standard spec 650.1.

B (Vacant)

C Construction

Replace standard spec 650.3.1 (5) and 650.3.1 (6) with the following:

Perform survey work using global positioning or conventional methods. Establish additional benchmarks and control points as necessary to support the method of operation, or as the engineer directs. Do not use global positioning methods 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 but not limited to structure centers, offsets, access openings, rim and invert elevations.
6. Sanitary sewer construction or other gravity –based drainage system, including but not limited to structure centers, offsets, access openings, rim and invert elevations.

Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes, but is not limited to:

1. Raw data files
2. Digital stakeout reports
3. Control check reports
4. Supplemental control files (along with method used to establish coordinates and elevation)
5. 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, in the engineer's opinion, 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 spec105.6 or standard spec 650 by having provided this additional information.

Supplement standard spec 650.3.3.3.6.2 with the following:

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:

The department will measure Survey Project 1060-34-87 as a separate 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.0105.0007	Survey Project 1060-34-87	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract. The department will not make final payment for any staking 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. The department will deduct from payments due the contractor for the additional costs specified in 105.6. No additional payments will be made for restaking due to construction disturbance and knock-outs.
SEF Rev. 14_0909

70. Rectangular Rapid Flash Beacon (RRFB) System 65+00 WWB, Item SPV.0105.6001; Rectangular Rapid Flash Beacon (RRFB) System Ramp WA Right, Item SPV.0105.6002; Rectangular Rapid Flash Beacon (RRFB) System Ramp WA Left, Item SPV.0105.6003; Rectangular Rapid Flash Beacon (RRFB) System Station 40+75 WEB, Item SPV.0105.6004; Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Right, Item SPV.0105.6005; Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Left, Item SPV.0105.6006.

A Description
This work shall consist of furnishing and installing to the department a solar powered rectangular rapid flashing beacon (RRFB) system consisting of multiple assemblies as described herein and as shown in the plans. Each assembly shall be solar powered and pedestrian activated. The assemblies shall be wirelessly controlled and multiple units shall be synchronized.

B Materials

Furnish a RRFB system with multiple assemblies. Each assembly may consist of, but not limited to, light indications, and electrical components (wiring, solid-state circuit boards, etc). An assembly may include the following items:

(1) Light Indications

1. Each indication shall be a minimum size of approximately 7" wide x 3" high with 8 high power LEDs
2. Two indications shall be installed on an assembly facing in the direction of approaching vehicular traffic. The two indications shall be aligned horizontally, with the longer dimension of the indication horizontal, and a minimum space between the two indications of approximately 7" measured from inside edge of one indication to inside edge of second indication.
3. A 6 LED indication shall be installed on an assembly facing in the direction of approaching pedestrian traffic to serve as a confirmation for the pedestrian that the system has been activated.
4. The outside edges of the two indications, including any housing, shall not protrude beyond the outside edges of the integral signage of the assembly.
5. The light intensity of the indications shall be certified to meet the minimum specifications of the Society of Automotive Engineers (SAE) standard J595 Class 1(Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005 and be available upon request
6. Each indication shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque.
7. All exposed hardware shall be anti-vandal.
8. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

(2) Sign

1. All signs shall be supplied and installed under a separate bid item. However, the assemblies must be constructed to allow the appropriate space for the installation of the signs in the field.

(3) Control Circuit

1. The control circuit shall have the capability of independently flashing up to two independent outputs. The LED light outputs and flash pattern shall be FHWA approved and engineer programmed.
2. The controller shall be one of the following:
    - Web enabled to allow for remote programming and system diagnostics. Including flash time, flash pattern and report

system information, such as battery voltage, and temperature.

- On-Board user interface that provides system diagnostics and allows system setting changes.
- Approved equal.

3. The flashing output shall have 70 to 80 periods of flashing per minute with a 100 – millisecond duration on time. The output shall reach the output current as programmed for the duration of the pulse.
4. Each of the two yellow indications shall have 70 to 80 periods of flashing per minute and shall have alternating, but approximately equal, periods of flashing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, the yellow indications on the left side of the RRFB shall emit two slow pulses of light after which the yellow indications on the right side of the RRFB shall emit four rapid pulses of light followed by a long pulse.
5. Flash rates with the frequencies of 5 to 30 flashes/second shall not be used to avoid inducing seizures.
6. The control circuit shall be installed in an IP67 NEMA rated enclosure.
7. All circuit connectors shall conform to Ingress Protection, IP-67 rating, dust proof, and protected from temporary immersion in water up to 3 feet deep for 30 minutes. Connectors shall be Deutsch DTM series, Carmanah RRFB or approved equal
8. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

(4) Battery

1. The Battery shall be a 12VDC Absorbed Glass Mat (AGM) sealed lead-acid, maintenance-free battery.
2. The Battery shall be rated at 45AH minimum and shall conform to Battery Council International (BCI) specifications or battery system that is 14 Ah and is suitable for usage model and system autonomy requirements.
   All batteries shall be sealed in a plastic film to provide moisture and corrosion resistance.
3. The Battery shall have a minimum operating temperature range of -76º to 140ºF (-60º to 60ºC).
4. All battery connectors shall conform to Ingress Protection, IP-67 rating, dust proof, and protected from temporary immersion in water up to 3 feet deep for 30 minutes. Connectors shall be Deutsch DTM series or approved equal
5. The Battery shall be solar-charged with a capacity up to 30 days of autonomy without sunlight, varying with ambient temperature and number of activations. Solar calculations shall be provided

(5) Wireless Radio

1. Radio control shall operate on 900 MHzfrequency hopping spread spectrum network or 2.4 GHz FCC ISM band mesh network radio or approved equal.
2. Radio shall integrate with communication of RRFB system control circuit to activate light indications from pushbutton input.
3. The Radio shall synchronize all of the remote light indications so they will turn on within 120 msec of each other and remain synchronized through-out the duration of the flashing cycle.
4. Radio systems shall operate from 3.6 vdc to 15vdc.
5. The Radio unit shall have an LCD display to program flash time and communicate system information, such as battery voltage, battery temperature and solar charge level an onboard diagnostics.
6. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

(6) Pushbutton

1. The pushbutton shall be capable of continuous operation over a temperature range of -30 degrees F to 165 degrees F (-34 degrees C to 74 degrees C).
2. Pushbutton shall be ADA compliant.

(7) Solar Panel

1. The Solar Panel shall provide a minimum of 10 watts and maximum of 55 watts at peak total output.
2. The Solar Panel shall be affixed to an aluminum plate and bracket, at a minimum angle of 45 degrees to allow for maximum solar collection and optimal battery strength or approved equal.
3. The Solar Panel Assembly (panel, plate and bracket) shall be mounted on a pole cap mount or aluminum mounting bracket, to allow for maximum solar collection and optimal battery strength or approved equal.
4. The Solar Panel shall have a minimum operating temperature range of -40º to 185ºF (-40º to 85ºC).

(8) Pedestal Shaft

1. Shall meet the requirements as set forth in standard spec 657.2.4.
2. Shall be a standard 4.5" OD aluminum pedestal pole. Supplied with one end threaded for easy installation into a pedestal base.
3. Shall be a 13’ Schedule 80 pipe raw aluminum

(9) Pedestal Base

1. Shall meet the requirements as set forth in standard spec 657.2.5.
2. The pedestal base shall be a cast aluminum pedestals mount on a concrete base attached by four internal anchor bolts imbedded in the base.
3. The Base shall have a large 8.5" square hand hole cover allowing access to the interior of the base.

(10) Concrete Base

1. Shall meet the requirements as set forth in standard spec 654.2.1, as applicable.
2. The concrete base shall be a Type 1 base (WisDOT bid item 654.0101) or approved equivalent.

(11) Anchor Bolts

1. The anchor bolts shall be galvanized steel 1" x 42".
2. Set of 4 includes lock washer and nut.

C Construction

The RRFB system will consist of multiple assemblies to be constructed by the contractor as shown on the plans.

D Measurement

The department will measure furnishing to the department a rectangular rapid flashing beacon (RRFB) system as a lump sum, as shown on the plans, acceptable furnished and delivered.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.6001	Rectangular Rapid Flash Beacon(RRFB) System 65+00 WWB	LS
SPV.0105.6002	Rectangular Rapid Flash Beacon (RRFB) System Ramp WA Right	LS
SPV.0105.6003	Rectangular Rapid Flash Beacon (RRFB) System Ramp WA Left	LS
SPV.0105.6004	Rectangular Rapid Flash Beacon (RRFB) System Station 40+75 WEB	LS
SPV.0105.6005	Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Right	LS
SPV.0105.6006	Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Left	LS

Payment is full compensation for providing and installing a fully operational RRFB system consisting of multiple assemblies; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

NOTE: The advance RRFB's on Watertown Plank Road shall be interconnected by solar to the RRFB's at the ramp crosswalk.

RRFB's Ramp WA Right and WA Left shall be interconnected with the advance RRFB at Station 40+75 WEB Eastbound. RRFB's Ramp WC Right and WC Left shall be interconnected with the advance RRFB at Station 65 +00 WWB.

U:rectangular rapid flash beacon spec WisDOT RRFB spec 1060-34-87 Watertown Plank Road entrance ramps, revised 4-28-16.

71. Topsoil Special, Item SPV.0180.0200.

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 amounts 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*	90%	100%
PH Range	6.0	7.0
Organic Matter**	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand and Gravel	10%	70%

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

**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 above. Utilize 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 two 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 quantity 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 item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0200	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 allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections, underfilling embankments, or deductions for materials obtained from areas of cut sections.

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 Rev.15_0316

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

Release of Routine Retainage

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

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

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

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

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

Make the following revisions to the standard specifications:

450.3.2.1 General

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

450.3.2.1.1 Preparation and Paving Operations

(1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 36 F for upper layers or 32 F for lower layers unless the engineer allows in writing. The contractor should place HMA pavement for projects in the northern asphalt zone between May 1 and October 15 inclusive and for projects in the southern asphalt zone between April 15 and November 1 inclusive. CMM 4-53 figure 2 defines asphalt zones. Notify the engineer at least one business day before paving.

(2) Unless the contract specifies otherwise, conform to the following:

- Keep the road open to all traffic during construction.
- Prepare the existing foundation for treatment as specified in 211.
- Incorporate loose roadbed aggregate as a part of preparing the foundation, in shoulder construction, or dispose of as the engineer approves.

(3) Place asphaltic mixture only on a prepared, firm, and compacted base, foundation layer, or existing pavement substantially surface-dry and free of loose and foreign material. Do not place over frozen subgrade or base, or where the roadbed is unstable.

450.3.2.1.2 Cold Weather Paving

450.3.2.1.2.1 General

(1) Conform to these cold weather paving provisions for work performed under the following:

- The 460 HMA Pavement bid items.
- The 465 Asphaltic Surface bid items.
- Special provisions that require placing mixture conforming to the contract requirements under 460 for HMA pavement or under 465 for asphaltic surface.

450.3.2.1.2.2 Cold Weather Paving Plan

(1) Submit a written cold weather paving plan to the engineer at the preconstruction meeting. In that plan outline material, operational, and equipment changes for paving when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F. Include the following:

- Use a department-accepted HMA mix design that incorporates a warm mix additive from the department's approved products list. Do not use a foaming process that introduces water into the mix.
- Identify the warm mix additive and dosage rate.
- Identify modifications to the compaction process and when to use them.

(2) Engineer written acceptance is required for the cold weather paving plan. Engineer acceptance of the plan does not relieve the contractor of responsibility for the quality of HMA pavement placed in cold weather except as specified in 450.5.2(3).

450.3.2.1.2.3 Cold Weather Paving Operations

(1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F unless a valid engineer-accepted cold weather paving plan is in effect.

(2) If the national weather service forecast for the construction area predicts ambient air temperature less than 40 F at the projected time of paving within the next 24 hours, confirm or submit revisions to the cold weather paving plan for engineer validation. Update the plan as required to accommodate the conditions anticipated for the next day's operations. Upon validation of the plan, the engineer will allow paving for the next day. Once in effect, pave conforming to the engineer-accepted cold weather paving plan for the balance of that work day or shift regardless of the temperature at the time of paving.

450.4 Measurement

Add the following as paragraph three effective with the June 2016 letting:

(3) The department will measure HMA Cold Weather Paving by the ton of HMA mixture placed conforming to an engineer-accepted cold weather paving plan.

450.5 Payment

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

450.5.1 General

(1) All costs of furnishing, maintaining, and operating the truck scale or other weighing equipment and furnishing the weigh tickets are incidental to the contract.

(2) Nonconforming material allowed to remain in place is subject to price adjustment under 105.3.2.

(3) Full-depth sawing to remove integrally placed safety edge where not required is incidental to the contract.

(4) The contractor is responsible for the quality of HMA placed in cold weather.

450.5.2 Cold Weather Paving

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

ITEM NUMBER	DESCRIPTION	UNIT
450.4000	HMA Cold Weather Paving	TON

(2) Payment for HMA Cold Weather Paving is full compensation for additional materials and equipment specified for cold weather paving under 450.3.2.1.2 including costs for preparing, administering, and following the contractor's cold weather paving plan. The department will not pay for HMA Cold Weather Paving for HMA placed as follows:

- If the lot density is less than the minimum specified in table 460-3 for mixture placed under 460.
- On days when the department is assessing liquidated damages.

(3) If because of an excusable compensable delay under 108.10.3, the engineer directs the contractor to pave when the temperature is less than 36 F for the upper layer or less than 32 F for lower layers, the department:

- Will relieve the contractor of responsibility for damage and defects the engineer attributes to cold weather paving.
- Will not assess disincentives for density or ride.

(4) If HMA pavement is placed under 450.3.2.1.2 and the HMA Cold Weather Paving bid item is not in the contract, the department will pay for the additional costs specified in 450.5.2(2) as extra work. The department will pay separately for providing HMA pavement and HMA surface under 460.5, 465.5, and the contract special provisions.

460.3.4 Cold Weather Paving

Delete the entire subsection effective with the June 2016 letting.

460.5.1 General

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

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

ITEM NUMBER	DESCRIPTION	UNIT
460.5000 - 5999	HMA Pavement (gradation) LT (binder)(designation)	TON
460.6000 - 6999	HMA Pavement (gradation) MT (binder)(designation)	TON
460.7000 - 7999	HMA Pavement (gradation) HT (binder)(designation)	TON
460.8000 - 8999	HMA Pavement (gradation) SMA (binder)(designation)	TON
460.2000	Incentive Density HMA Pavement	DOL

460.5.2.2 Disincentive for HMA Pavement Density

Replace paragraph two with the following:

(2) The department will not assess density disincentives for pavement placed in cold weather because of a department-caused delay as specified in 450.5.2(3).

460.5.2.4 Cold Weather Paving

Delete the entire subsection effective with the June 2016 letting.

550.5.2 Piling

Add the following as paragraph three effective with the December 2015 letting:

(3) The department will not entertain a change order request for a differing site condition under 104.2.2.2 or for a quantity change under 104.2.2.4.3 for the Piling bid items. Instead the department will adjust pay under the Piling Quantity Variation administrative item if the total driven length of each size is less than 85 percent of, or more than 115 percent of the contract quantity as follows:

Percent of Contract Length Driven	Pay Adjustment
< 85	(85% contract length - driven length) x 20% unit price
> 115	(driven length - 115% contract length) x 5% unit price

643.2.1 General

Replace paragraph two with the following effective with the December 2015 letting:

(2) Use reflective sheeting from the department's approved products list on barricades, drums, and flexible tubular marker posts.

Errata

Make the following corrections to the standard specifications:

641.2.9 Overhead Sign Supports

Correct errata adding back accidentally deleted paragraphs one through three.

(1) Provide commercially fabricated overhead sign supports conforming to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years with a wind importance factor of 1.00. Design to withstand a 3 second gust wind speed of 90 mph. Do not use the methods of appendix C of those AASHTO standards.

(2) Design structures, listed as applicable structure types in the AASHTO standards, to the fatigue category criteria as follows:

1. Structures carrying variable message signs:
   - Category I criteria for structures over all roadway types.
2. Structures carrying type II or III signs:
   - Category I criteria for structures used over highways and free flow ramps.
   - Category II criteria for structures with arms greater than 30 feet used over local roads and city streets.
   - Category III criteria for structures with arms 30 feet or less used over local roads and city streets.

(3) Use the posted speed limit of the roadway beneath the structure for truck-induced gusts.

(4) Submit shop drawings identified by structure number, design computations, and material specifications, to the engineer before erecting sign supports. Provide tightening procedures for mast arm or luminaire arm to pole shaft connections on the shop drawings. Have a professional engineer registered in the state of Wisconsin sign, seal, and date the shop drawings and certify that the design conforms to AASHTO standards and the contract.

(5) Provide steel pole shafts and mast arms zinc coated according to ASTM A123. Provide tapered pole and arm shafts with a minimum taper of 0.14 inch per foot for single-member vertical and single-member horizontal structure components. Provide bolts and other hardware conforming to 641.2.2.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

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

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

Effective with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

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

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

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

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

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

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

II. PAYROLL REQUIREMENTS

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

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

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

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

V. ADDITIONAL CLASSIFICATIONS

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

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

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

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

ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
MILWAUKEE COUNTY

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

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

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

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

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

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

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	31.55	18.52	50.07
Carpenter	34.13	20.71	54.84
Cement Finisher	33.95	19.88	53.83
Future Increase(s): Add $1.75 on 6/1/16. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	35.13	23.19	58.32
Future Increase(s): Add $1.60 on 6/1/16; Add $1.70 on 6/1/17 Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	35.62	0.00	35.62
Ironworker	30.77	23.72	54.49
Line Constructor (Electrical)	40.81	18.06	58.87
Painter	29.87	18.79	48.66
Pavement Marking Operator	30.27	19.83	50.10
Piledriver	30.11	21.09	51.20
Roofer or Waterproofer	30.40	2.23	32.63
Teledata Technician or Installer	25.63	17.25	42.88
Tuckpointer, Caulker or Cleaner	34.28	18.60	52.88
Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	15.67	48.32
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.09	39.62
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	22.45	11.84	34.29
TRUCK DRIVERS			
Single Axle or Two Axle	36.72	21.15	57.87
Three or More Axle	25.78	18.96	44.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	30.82	21.85	52.67
Future Increase(s): Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx.			
Pavement Marking Vehicle	23.82	17.72	41.54
Shadow or Pilot Vehicle	25.28	18.31	43.59
Truck Mechanic	25.28	18.31	43.59
LABORERS			
General Laborer	27.51	20.63	48.14
Future Increase(s): Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: Add $.15/hr for air tool operator, joint sawer and filler (pavement), vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.35/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add $.50/hr for line and grade specialist; Add $.65/hr for blaster and powderman; Add $2.01/hr for topman; Add $2.46/hr for bottomman; Add $3.23/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	19.00	0.00	19.00
Landscaper	27.51	20.63	48.14
Future Increase(s): Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	23.55	20.03	43.58
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.53	0.00	18.53
Railroad Track Laborer	17.00	5.43	22.43
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or	38.27	21.85	60.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx.			
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx.	37.77	21.85	59.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx.	37.27	21.85	59.12
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete	37.01	21.85	58.86

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx.			
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx. .	36.72	21.85	58.57
Fiber Optic Cable Equipment.	21.00	0.00	21.00
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	36.72	21.15	57.87

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 Roadway Items					
0010	108.4400 CPM Progress Schedule	1.000 EACH		.		.
0020	201.0120 Clearing	11.000 ID		.		.
0030	201.0220 Grubbing	11.000 ID		.		.
0040	204.0100 Removing Pavement	1,168.000 SY		.		.
0050	204.0150 Removing Curb & Gutter	219.000 LF		.		.
0060	204.0155 Removing Concrete Sidewalk	536.000 SY		.		.
0070	204.0170 Removing Fence	150.000 LF		.		.
0080	204.0195 Removing Concrete Bases	12.000 EACH		.		.
0090	204.0220 Removing Inlets	5.000 EACH		.		.
0100	204.0245 Removing Storm Sewer (size) 0004. 24-Inch	189.000 LF		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	205.0100 Excavation Common	4,846.000 CY		.		.
0120	305.0120 Base Aggregate Dense 1 1/4-Inch	1,050.000 TON		.		.
0130	312.0115 Select Crushed Material	1,008.000 CY		.		.
0140	415.0085 Concrete Pavement 8 1/2-Inch	1,519.000 SY		.		.
0150	416.0610 Drilled Tie Bars	399.000 EACH		.		.
0160	416.0620 Drilled Dowel Bars	62.000 EACH		.		.
0170	517.1015.S Concrete Staining Multi-Color (structure) 0001. S-40-865	390.000 SF		.		.
0180	517.1015.S Concrete Staining Multi-Color (structure) 0002. S-40-866	390.000 SF		.		.
0190	517.1015.S Concrete Staining Multi-Color (structure) 0003. S-40-867	390.000 SF		.		.
0200	517.1015.S Concrete Staining Multi-Color (structure) 0004. S-40-868	390.000 SF		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0210	517.1050.S Architectural Surface Treatment (structure) 0001. S-40-865	240.000 SF		.		.
0220	517.1050.S Architectural Surface Treatment (structure) 0002. S-40-866	240.000 SF		.		.
0230	517.1050.S Architectural Surface Treatment (structure) 0003. S-40-867	240.000 SF		.		.
0240	517.1050.S Architectural Surface Treatment (structure) 0004. S-40-868	240.000 SF		.		.
0250	520.8000 Concrete Collars for Pipe	3.000 EACH		.		.
0260	601.0331 Concrete Curb & Gutter 31-Inch	1,032.000 LF		.		.
0270	601.0555 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	133.000 LF		.		.
0280	601.0600 Concrete Curb Pedestrian	22.000 LF		.		.
0290	602.0410 Concrete Sidewalk 5-Inch	9,886.000 SF		.		.
0300	602.0515 Curb Ramp Detectable Warning Field Natural Patina	128.000 SF		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0310	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	28.000 LF		.		.
0320	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	329.000 LF		.		.
0330	611.0535 Manhole Covers Type J-Special	1.000 EACH		.		.
0340	611.0624 Inlet Covers Type H	5.000 EACH		.		.
0350	611.0642 Inlet Covers Type MS	3.000 EACH		.		.
0360	611.0663 Inlet Covers Type X	1.000 EACH		.		.
0370	611.2005 Manholes 5-FT Diameter	3.000 EACH		.		.
0380	611.2008 Manholes 8-FT Diameter	1.000 EACH		.		.
0390	611.3004 Inlets 4-FT Diameter	7.000 EACH		.		.
0400	611.3901 Inlets Median 1 Grate	1.000 EACH		.		.
0410	611.3902 Inlets Median 2 Grate	1.000 EACH		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0420	611.8110 Adjusting Manhole Covers	1.000 EACH		.		.
0430	611.9710 Salvaged Inlet Covers	5.000 EACH		.		.
0440	616.0206 Fence Chain Link 6-FT	106.000 LF		.		.
0450	619.1000 Mobilization	1.000 EACH		.		.
0460	620.0300 Concrete Median Sloped Nose	265.000 SF		.		.
0470	623.0200 Dust Control Surface Treatment	3,543.000 SY		.		.
0480	624.0100 Water	21.000 MGAL		.		.
0490	628.1504 Silt Fence	76.000 LF		.		.
0500	628.1520 Silt Fence Maintenance	76.000 LF		.		.
0510	628.1905 Mobilizations Erosion Control	2.000 EACH		.		.
0520	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0530	628.7005 Inlet Protection Type A	17.000 EACH		.		.
0540	628.7010 Inlet Protection Type B	9.000 EACH		.		.
0550	628.7015 Inlet Protection Type C	47.000 EACH		.		.
0560	628.7504 Temporary Ditch Checks	134.000 LF		.		.
0570	628.7570 Rock Bags	50.000 EACH		.		.
0580	629.0210 Fertilizer Type B	2.600 CWT		.		.
0590	631.0300 Sod Water	74.700 MGAL		.		.
0600	631.1000 Sod Lawn	3,313.000 SY		.		.
0610	634.0618 Posts Wood 4x6-Inch X 18-FT	28.000 EACH		.		.
0620	634.0816 Posts Tubular Steel 2x2-Inch X 16-FT	8.000 EACH		.		.
0630	636.0100 Sign Supports Concrete Masonry	109.000 CY		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0640	636.1500 Sign Supports Steel Coated Reinforcement HS	18,880.000 LB		.		.
0650	637.1220 Signs Type I Reflective SH	960.500 SF		.		.
0660	637.2210 Signs Type II Reflective H	383.750 SF		.		.
0670	637.2230 Signs Type II Reflective F	92.500 SF		.		.
0680	638.2102 Moving Signs Type II	9.000 EACH		.		.
0690	638.2601 Removing Signs Type I	6.000 EACH		.		.
0700	638.2602 Removing Signs Type II	9.000 EACH		.		.
0710	638.3000 Removing Small Sign Supports	16.000 EACH		.		.
0720	641.1200 Sign Bridge Cantilevered (structure) 0001. S-40-865	LUMP	LUMP			.
0730	641.1200 Sign Bridge Cantilevered (structure) 0002. S-40-866	LUMP	LUMP			.
0740	641.1200 Sign Bridge Cantilevered (structure) 0003. S-40-867	LUMP	LUMP			.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0750	641.1200 Sign Bridge Cantilevered (structure) 0004. S-40-868	LUMP	LUMP			.
0760	643.0200 Traffic Control Surveillance and Maintenance (project) 0001. 1060-34-87	145.000 DAY		.		.
0770	643.0300 Traffic Control Drums	5,083.000 DAY		.		.
0780	643.0410 Traffic Control Barricades Type II	194.000 DAY		.		.
0790	643.0420 Traffic Control Barricades Type III	1,589.000 DAY		.		.
0800	643.0705 Traffic Control Warning Lights Type A	3,178.000 DAY		.		.
0810	643.0715 Traffic Control Warning Lights Type C	988.000 DAY		.		.
0820	643.0800 Traffic Control Arrow Boards	66.000 DAY		.		.
0830	643.0900 Traffic Control Signs	3,852.000 DAY		.		.
0840	643.0920 Traffic Control Covering Signs Type II	10.000 EACH		.		.
0850	643.1000 Traffic Control Signs Fixed Message	238.000 SF		.		.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0860	643.1050 Traffic Control Signs PCMS	31.000 DAY		.		.
0870	643.2000 Traffic Control Detour (project) 0001. 1060-34-87	1.000 EACH		.		.
0880	643.3000 Traffic Control Detour Signs	284.000 DAY		.		.
0890	646.0106 Pavement Marking Epoxy 4-Inch	6,112.000 LF		.		.
0900	646.0600 Removing Pavement Markings	2,002.000 LF		.		.
0910	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	218.000 LF		.		.
0920	647.0166 Pavement Marking Arrows Epoxy Type 2	6.000 EACH		.		.
0930	647.0176 Pavement Marking Arrows Epoxy Type 3	6.000 EACH		.		.
0940	647.0206 Pavement Marking Arrows Bike Lane Epoxy	19.000 EACH		.		.
0950	647.0306 Pavement Marking Symbols Bike Lane Epoxy	19.000 EACH		.		.
0960	647.0356 Pavement Marking Words Epoxy	4.000 EACH		.		.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0970	647.0526 Pavement Marking Yield Line Symbols Epoxy 18-Inch	24.000 EACH		.		.
0980	647.0726 Pavement Marking Diagonal Epoxy 12-Inch	728.000 LF		.		.
0990	647.0796 Pavement Marking Crosswalk Epoxy 24-Inch	210.000 LF		.		.
1000	647.0955 Removing Pavement Markings Arrows	1.000 EACH		.		.
1010	647.0960 Removing Pavement Markings Symbols	1.000 EACH		.		.
1020	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	3,315.000 LF		.		.
1030	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	1,078.000 LF		.		.
1040	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	4,211.000 LF		.		.
1050	652.0615 Conduit Special 3-Inch	290.000 LF		.		.
1060	652.0700.S Install Conduit into Existing Item	7.000 EACH		.		.
1070	653.0905 Removing Pull Boxes	2.000 EACH		.		.

CONTRACT: 20160614006 PROJECT(S): 1060-34-87 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1080	654.0101 Concrete Bases Type 1	1.000 EACH		.		.
1090	654.0105 Concrete Bases Type 5	7.000 EACH		.		.
1100	655.0230 Cable Traffic Signal 5-14 AWG	553.000 LF		.		.
1110	655.0305 Cable Type UF 2-12 AWG Grounded	4,170.000 LF		.		.
1120	655.0505 Electrical Wire Traffic Signals 14 AWG	2,359.000 LF		.		.
1130	655.0625 Electrical Wire Lighting 6 AWG	7,076.000 LF		.		.
1140	662.1024.S Ramp Closure Gates Hardwired 24-FT	2.000 EACH		.		.
1150	662.1032.S Ramp Closure Gates Hardwired 32-FT	1.000 EACH		.		.
1160	662.1037.S Ramp Closure Gates Hardwired 37-FT	1.000 EACH		.		.
1170	670.0100 Field System Integrator 2001. FTMS	LUMP	LUMP			.
1180	670.0200 ITS Documentation 2001. FTMS	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1190	674.0300 Remove Cable	1,450.000 LF		.		.
1200	674.0400 Reinstall Cable	706.000 LF		.		.
1210	676.0305 Signal Assembly Advance Flasher Type 2	2.000 EACH		.		.
1220	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	3,075.000 LF		.		.
1230	678.0300 Fiber Optic Splice	16.000 EACH		.		.
1240	678.0400 Fiber Optic Termination	18.000 EACH		.		.
1250	678.0500 Communication System Testing 2001. FTMS	LUMP	LUMP			.
1260	690.0250 Sawing Concrete	1,090.000 LF		.		.
1270	715.0502 Incentive Strength Concrete Structures	2,000.000 DOL	1.00000		2000.00	
1280	SPV.0035 Special 0100. EBS Excavation	68.000 CY		.		.
1290	SPV.0035 Special 0101. EBS Backfill	68.000 CY		.		.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1300	SPV.0060 Special 0001. Traffic Control Local Road Lane Closures	200.000 EACH		.		.
1310	SPV.0060 Special 1002. Pull Box Non-Conductive 24x42 Inch	12.000 EACH		.		.
1320	SPV.0060 Special 1019. Relocating Light Poles, Arms and Luminaires	6.000 EACH		.		.
1330	SPV.0060 Special 1161. Pull Boxes Polymer Concrete Wauwatosa 17x30 Inch	4.000 EACH		.		.
1340	SPV.0060 Special 2001. Ground Rod	2.000 EACH		.		.
1350	SPV.0060 Special 2002. Salvage Microwave Detector Assembly	2.000 EACH		.		.
1360	SPV.0060 Special 2003. Install Salvaged Microwave Detector Assembly	2.000 EACH		.		.
1370	SPV.0060 Special 2004. Salvage Advance Flasher Assembly Type 1	2.000 EACH		.		.
1380	SPV.0060 Special 2005. Install Salvaged Advance Flasher Assembly Type 1	1.000 EACH		.		.
1390	SPV.0060 Special 2006. Install Salvaged Advance Flasher Assembly Type 2	1.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1400	SPV.0060 Special 2007. Removing On-Ramp Closure Gate	2.000 EACH		.		.
1410	SPV.0060 Special 5001. Hydrant Relocation	1.000 EACH		.		.
1420	SPV.0075 Special 0002. Pavement Cleanup Project 1060-34-87	40.000 HRS		.		.
1430	SPV.0075 Special 4000. Obstructions Sign Supports Concrete Masonry	4.000 HRS		.		.
1440	SPV.0090 Special 0016. Concrete Gutter And Gutter 55-Inch	41.000 LF		.		.
1450	SPV.0090 Special 0126. Pipe Underdrain 6-Inch Special	640.000 LF		.		.
1460	SPV.0090 Special 0152. Concrete Curb & Gutter 6-Inch Sloped 60-Inch Type A	20.000 LF		.		.
1470	SPV.0090 Special 0310. Pavement Marking Contrast Epoxy 11-Inch	1,655.000 LF		.		.
1480	SPV.0105 Special 0001. Removing Overhead Sign Structure S-40-964	LUMP	LUMP			.
1490	SPV.0105 Special 0002. Removing Overhead Sign Structure S-40-984	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1500	SPV.0105 Special 0003. Removing Overhead Sign Structure S-40-961	LUMP	LUMP			.
1510	SPV.0105 Special 0004. Removing Overhead Sign Structure S-40-985	LUMP	LUMP			.
1520	SPV.0105 Special 0007. Survey Project 1060-34-87	LUMP	LUMP			.
1530	SPV.0105 Special 6001. Rectangular Rapid Flash Beacon (RRFB) System 65+00 WWB	LUMP	LUMP			.
1540	SPV.0105 Special 6002. Rectangular Rapid Flash Beacon (RRFB) Ramp WA Right	LUMP	LUMP			.
1550	SPV.0105 Special 6003. Rectangular Rapid Flash Beacon (RRFB) System Ramp WA Left	LUMP	LUMP			.
1560	SPV.0105 Special 6004. Rectangular Rapid Flash Beacon (RRFB) System Station 40+75 WEB	LUMP	LUMP			.
1570	SPV.0105 Special 6005. Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Right	LUMP	LUMP			.
1580	SPV.0105 Special 6006. Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Left	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1590	SPV.0180 Special 0200. Topsoil Special	3,313.000 SY	.			.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE