HIGHWAY WORK PROPOSAL

Proposal Number: Ø 1

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Outagamie	4650-08-71	WISC 2017 623	City of Kaukauna, Delanglade Street Lawe Street - IH 41	STH 55

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, $ 100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: December 12, 2017 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time October 27, 2018	
Assigned Disadvantaged Business Enterprise Goal 15 %	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 Grading, base aggregate dense, PCC pavement, HMA pavement, pavement marking, permanent signing, traffic signals, street lighting, storm sewer, sanitary sewer, Structures R-44-24, R-44-25, R-44-26, S-44-0144, M-44-0001, M-44-0002, M-44-0003 and M-44-0004.	
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 4650-08-71, City of Kaukauna, Delanglade Street, Lawe Street – IH 41, STH 55, Outagamie County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2018 Edition, as published by the department, and these special provisions.

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

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate dense, PCC pavement, HMA pavement, pavement marking, permanent signing, traffic signals, street lighting, storm sewer, sanitary sewer, Structures R-44-24, R-44-25, R-44-26, S-44-0144, M-44-0001, M-44-0002, M-44-0003 and M-44-0004, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

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

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

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

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

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

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

Staging
Perform the work in accordance to the following stages as shown in the plans:

Stage 1
Stage 1 consists of two sub-stages. Stages 1A and 1B, with Stage 1B running concurrently with Stage 2 after Stage 1A is complete.

Stage 1A

- Complete roadway reconstruction and all associated work on CTH OO (Hyland Avenue).
- Complete reconstruction of the north, east, and west legs of the roundabout at the intersection of STH 55 (Delanglade Street) and CTH OO (Hyland Avenue).
- Complete construction of S-44-0209
- Coordinate lighting installation in Stage 1A with Kaukauna Utilities.

Stage 1B

- Complete roadway reconstruction work on STH 55 (Delanglade Street) from CTH J (Lawe Street) to south of CTH 00 (Hyland Avenue) and from north of CTH 00 (Hyland Avenue) to Gertrude Street/Maloney Road.
- Coordinate work related to the excavation, backfill and placement of underdrain along the Wisconsin Central Ltd tracks with the railroad. Adjust work area and schedule as necessary to allow railroad construction crews full access to the site to complete construction of the new signals and crossing.
- Construct temporary storm sewer connection south of proposed storm manhole 75 at approximately Station 71’RA’+90 LT.
- Construct temporary storm sewer connection at proposed storm manhole 12.0 at approximately Station 209’NB’+20 LT. Complete manhole installation and proposed storm sewer between manhole 12.0 and manhole 10.0 to be clear of the SB lanes of CTH J (Lawe Street) and STH 55/96 in the same day that work starts. Install temporary asphalt for the through SB lane of CTH J (Lawe Street) and STH 55/96 within 24 hours from completing the installation of the manhole. Ensure drainage from northeast to southwest is maintained in the existing storm sewer.
- Complete construction of R-44-0026.
- Complete construction of S-44-0205
- Coordinate lighting installation in Stage 1B with Kaukauna Utilities.

Stage 2

Do not begin work on Stage 2 until all work in Stage 1A is complete and CTH OO is open to through traffic across STH 55. Complete all work in Stage 2 between the end of the Kaukauna School District 2017/2018 school year and the start of the 2018/2019 school year.

- Close the intersection of STH 55/96, STH 96 (Plank Road), and CTH J (Lawe Street).
- Coordinate the roadway reconstruction work at the intersection of STH 55/96, STH 96 (Plank Road), and CTH J (Lawe Street) with the proposed railroad crossing work on STH 55/96.
- Complete the storm sewer work from the existing manhole at Station 207'NB'+17 RT west of the railroad tracks to the proposed storm manhole 2 before the removal of the railroad track crossing. A temporary connection with the existing storm sewer west of manhole 2 may be needed depending on the timing of the work.
- Upon removal of the tracks and existing crossing by the railroad, complete work under and immediately adjacent the crossing in a 24-hour time period on a mutually agreed upon date and time between the contractor and railroad anticipated to fall on a weekend, including, but not limited to, removals, construction of new storm sewer including open cut placement of casing pipe, trench backfill and density testing under crossing, installation of manhole 3, 4 and 5, installation of inlets 3.1, 4.1, 4.2, 5.1, 5.2 and 6, installation of storm sewer between manholes and inlets, excavation, placement of select crushed material, geotextile fabric, and pipe underdrain railroad 6-inch, and installation of traffic signal conduit. Allow the railroad access to the work zone immediately following placement of select crushed material for placement of ballast. Provide a vibratory roller for compaction of the ballast placed by the railroad, and allow railroad construction crews full access to the site to complete the reconstruction of the new crossing.
- Complete roadway reconstruction including traffic signals at the intersection of STH 55/STH 96, CTH J (Lawe Street), and the work on STH 96 (Plank Road).
- Continue construction of STH 55 (Delanglade Street) between CTH J (Lawe Street) and south of CTH 00 (Hyland Avenue) and also between north of CTH OO (Hyland Avenue) and Gertrude Street/Maloney Road.

Stage 3

Do not begin work on Stage 3 until the following items of work in Stage 1B are completed: concrete pavement, concrete curb and gutter, concrete sidewalk, concrete driveway and asphaltic surface driveways and field entrances.

- Complete roadway reconstruction of STH 55 (Delanglade Street) between Gertrude Street/Maloney Road and Arbor Way.
- Complete roadway reconstruction of Gertrude Street and Maloney Road including the roundabout at the intersection.
- Complete construction of R-44-0024 and R-44-0025.

- Complete construction of S-44-0200, S-44-0201, S-44-0202, S-44-0203, S-44-0204, S-44-0205, S-44-0206, and S-44-0207.
- Complete beam guard installation along the NB off-ramp Station 1105'AA'+70 to Station 1106'AA'+60 RT before erection of the cantilever sign bridge S-44-0144
- Complete all ramp reconstruction work, including parallel exit and entrance ramps along IH 41.

New lighting will be installed by Kaukauna Utilities on STH 55 (Delanglade Street) from the south project limits through the roundabout at Gertrude Street/Maloney Road. This work will be completed concurrent with all stages of construction. Coordinate work with Kaukauna Utilities.

Do not begin or continue any work that closes IH 41. Work may be performed, provided such work operations do not include ingress and egress of vehicles and equipment which would obstruct the flow of traffic on the freeway, during peak traffic periods. Do not ingress to or egress from IH 41 unless approved by the engineer. Submit proposed ingress/egress procedure to the engineer at least two weeks prior to use.

Northeast Region Traffic Section (primary contact: (920) 366-8033; secondary contact (920) 336-3107) must approve the procedure prior to use. Payment for coordinating construction ingress/egress points is considered incidental to the contract.

Interim Liquidated Damages and Completion Dates

Lawe Street Railroad Crossing 24-Hour Track Closure
Upon removal of the Lawe Street existing crossing by the railroad, complete all work under and adjacent to the Lawe Street railroad crossing in a 24-hour time period on a mutually agreed upon date and time between the contractor and railroad which is anticipated to fall on a weekend, including, but not limited to, removals, construction of new storm sewer including open cut placement of casing pipe, trench backfill and density testing under crossing, installation of manhole 3, 4 and 5, installation of inlets 3.1, 4.1, 4.2, 5.1, 5.2 and 6, installation of storm sewer between manholes and inlets, excavation, placement of select crushed material, geotextile fabric, and pipe underdrain railroad 6-inch, and installation of traffic signal conduit.

If the contractor fails to complete all work outlined above within a 24-hour window on a mutually agreed upon date and time between the contractor and the railroad, the department will assess the contractor an initial deduction of $1,000 in interim liquidated damages and $1,000 per hour or portion thereof in hourly damages from money due under this contract for each hour interval that the required work is not completed. Hourly damages will be assessed using the administrative item Failing to Open Road to Traffic.

Stage 1B south of CTH OO (Hyland Avenue) and Stage 2– STH 55/STH 96/CTH J Intersection
Complete Stage 1B construction of STH 55 south of CTH OO (Hyland Avenue) and Stage 2 construction of the intersection of STH 55/96, STH 96 (Plank Road), and CTH J (Lawe Street) by 12:01 AM, September 4, 2018. The limits on STH 55/96 which must be completed are from Station 207'NB'+30 to Station 209'NB'+75. The limits on CTH J (Lawe Street) which must be completed are from Station 100'JH'+00 to Station 102'J'+70. The limits on STH 96 (Plank Road) that need to be completed are from Station 309'PL'+60 to Station 315'PL'+08. Work items to be completed include earthwork, storm sewer, base aggregate dense, concrete pavement, concrete curb and gutter, concrete sidewalk and curb ramps, concrete driveways, lighting, asphalt pavement, pavement marking, signing, traffic signals, and finishing items including topsoil, seeding, fertilizer, and erosion control items.

If the contractor fails to complete the defined work necessary to open the intersection to vehicular and pedestrian traffic by 12:01 AM, September 4, 2018, the department will assess the contractor $4,000 in interim liquidated damages for each calendar day that the required work for the intersection remains incomplete after 12:01 AM, September 4, 2018. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

Stage 3 - Gertrude Street and Maloney Road
Complete construction of Gertrude Street and Maloney Road, including construction of the roundabout, within 40 consecutive calendar days of starting Stage 3. The limits on STH 55 (Delanglade Street) which must be completed are from Station 247'NB'+85 to Station 249'NB'+75. The limits on Gertrude Street and Maloney Road which must be completed are from the west project limits on Gertrude through the roundabout to the east project limits on Maloney Road. Work items to be completed include earthwork, storm sewer, base aggregate dense, concrete pavement, concrete curb and gutter, concrete sidewalk and curb ramps, concrete driveways, lighting, asphalt pavement, pavement marking, signing, and finishing items including topsoil, seeding, fertilizer, and erosion control items.

If the contractor fails to complete the defined work necessary to open Gertrude Street and Maloney Road to vehicular traffic across STH 55 (Delanglade Street) within 40 consecutive calendar days of starting Stage 3, the department will assess the contractor $4,000 in interim liquidated damages for each calendar day that the required work for the STH 55/Gertrude Street/Maloney Road intersection remains incomplete beyond 40 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

Stage 3 - Interchange and Ramps
Complete all of the work for Stage 3 including STH 55 and the IH 41 interchange ramps within 90 consecutive calendars days. The limits on STH 55 (Delanglade Street) that need to be completed are from Station 250'SB'+25 to Station 270'SB'+48. Work on all ramps associated with this interchange must also be completed. Work items to be completed include earthwork, storm sewer, base aggregate dense, concrete pavement, concrete curb and gutter, concrete sidewalk and curb ramps, concrete driveways, lighting, retaining walls,

asphalt pavement, beam guard, pavement marking, signing, and finishing items including topsoil, seeding, fertilizer, and erosion control items.

If the contractor fails to complete the defined work necessary to open the STH 55/IH 41 interchange to vehicular and pedestrian traffic within the 90 consecutive calendar days, the department will assess the contractor $12,000 in interim liquidated damages for each calendar day that the required work for the STH 55/IH 41 interchange remains incomplete after 90 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

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

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

If additional construction activities beyond what was originally specified are required to complete the work, approval from the engineer, following coordination with WisDOT REC, is required prior to initiating these activities.

Local Street Work Restrictions
Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours. Furnish any ordinance variance issued by the municipality or require ed permits to the engineer in writing 3 days prior to preforming such work.

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

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

The contractor is responsible for plowing any areas which may need to be cleared of snow or ice to accommodate changes in traffic control and to facilitate construction staging during winter months. Outagamie County or the local maintaining authority will remain responsible for snow removal or ice control operations to maintain traffic on highways open to traffic or closed to through traffic.

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

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

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

4. Traffic.

Provide emergency access within the construction limits at all times.

Stage construction operations to accommodate local traffic through the project. Flagging operations will be allowed during daytime hours to reduce local traffic to one lane as needed to complete construction operations.

The proposed detour for STH 55 Stage 1A work is via STH 55 to CTH J (Lawe Street) to CTH JJ to STH 55. The proposed detour for CTH OO Stage 1A work is via CTH OO to CTH N to IH 41 to CTH J to CTH OO.

The proposed detour for STH 55 Stage 1B and Stage 2 is via STH 55 to STH 96 (Draper Street) to Gertrude Street to CTH OO (Hyland Ave) to CTH J to CTH JJ to STH 55. Also, during Stage 2 the detour for STH 96 is via STH 96 (Green Bay Road/Plank Road) to CTH JJ to CTH J to CTH OO to Gertrude Street to STH 96 (Draper Street).

The proposed detour for STH 55 during Stage 3 following the completion of Stage 2 is via STH 55 to CTH JJ to CTH J to CTH OO to STH 55.

The detour in place for STH 55 during Stage 2 via STH 96 (Draper Street), Gertrude Street, CTH OO (Hyland Avenue), CTH J, and CTH JJ will need to remain in place for at the beginning of Stage 3 until the work at the intersection of STH 55/96, CTH J (Lawe Street), and STH 96 (Plank Road) is completed. At this time the detour for Stage 3 would then be utilized.

Complete the construction sequence and the associated traffic control and detours as detailed on the plans as follows:

Construction Staging

Stage 1A and 1B
Stage 1A and Stage 1B run concurrent. Close Stage 1A work area on CTH OO (Hyland Avenue) to through traffic. Place detour as stated above and shown in the plan for the closure of CTH OO (Hyland Avenue). Close Stage 1B work area on STH 55 (Delanglade Street) to through traffic between CTH J (Lawe Street) and Gertrude Street/Maloney Road. Place detour as stated above and shown in plan for the closure of STH 55 (Delanglade Street). The intersection of STH 55 (Delanglade Street), CTH J (Lawe Street), and STH 96 (Plank Road) is to remain open to traffic. Maintain one lane of traffic in each direction on Gertrude Street and Maloney Road across STH 55. STH 55 (Delanglade Street) between Gertrude Street/Maloney Road and Arbor Way is to remain open to traffic including full access at the IH 41 interchange. Maintain local access to businesses within the Stage 1A and Stage 1B work areas as outlined below.

Maintain pedestrian access along STH 55 (Delanglade Street) between CTH J (Lawe Street) and Oviatt Street on a minimum of one side of the street utilizing existing either existing concrete sidewalk, temporary pedestrian surface asphalt or new concrete sidewalk. Maintain pedestrian access along STH 55 (Delanglade Street) between Oviatt Street and Desnoyer Street utilizing either existing concrete sidewalk or new concrete sidewalk. Maintain pedestrian access across STH 55 at Desnoyer Street.

Stage 2
Stage 2 runs concurrent with Stage 1B and the beginning of Stage 3. Close the intersection of STH 55 (Delanglade Street), CTH J (Lawe Street), and STH 96 (Plank Road) to traffic. Place detour as stated above and shown in plan for closure of STH 96 (Plank Road).

Maintain pedestrian access through the Stage 2 construction area at all times.

Stage 3
Stage 3 runs concurrent with restoration, pavement marking and signing construction operations in Stage 1B and can be concurrent with the latter part of Stage 2. Close STH 55 (Delanglade Street) between Gertrude Street/Maloney Road and Arbor Way and the STH 55/IH 41 interchange to traffic. Place detour as stated above and shown in plan for STH 55 (Delanglade Street) and IH 41 interchange closure. Maintain two lanes of traffic in each direction along IH 41 during peak hours. Single lane closures will be allowed along IH 41 for ramp work during the off-peak times noted below under “IH 41 Traffic.” Complete the roadway reconstruction of the intersection of STH 55 (Delanglade Street) and Gertrude Street/Maloney Road, including roundabout and roadway approaches, within 40 consecutive calendar days. Maintain access to businesses located between CTH OO and Gertrude Street/Maloney Road from the south on a minimum of one 11-foot paved lane in each direction, including adequate area for truck ingress and egress to driveways.

Maintain full access to the businesses on Gertrude Street from STH 55 south of the roundabout during the first 40 days of Stage 3. Maintain one lane of traffic in each direction between driveways on Gertrude Street and STH 55 south of the roundabout except as follows: Access can be reduced to one lane under the direction of flagging operation during daylight hours for removals, storm sewer construction, grading, and placement of breaker run and base aggregate dense. Access may be reduced to short one lane sections during some phases of paving as outlined in the plans.

Maintain full access to the businesses on Gertrude Street and Maloney Road from STH 55 south of the roundabout during days 41 through 90 of Stage 3 when the STH 55/IH 41 interchange is closed.

Residential Access
Maintain driveway access to residential properties at all times except when the construction operations discussed below are occurring at or immediately adjacent to the driveways. Driveway access shall be maintained on a minimum surface of base aggregate. Prior to closing any residential driveways for a short period of time (24 hours or less), provide the property owner with a minimum of 24 hours' notice prior to the closing. For any closures lasting more than 24 hours, provide a minimum notice of 48 hours to the property owner or resident. During grading or storm sewer operations within the limits of any driveway, the contractor may close the driveway for a total combined time period of 5 calendar days; these 5 calendar days may be run consecutively or individually. During paving operations and driveway construction (including sidewalk constructed within the limits of the driveway) the contractor may close the driveway for a total of 20 calendar days; these 20 calendar days may be run consecutively or individually.

<u>1023 Lawe Street</u>
Maintain driveway access to Station 210'NB'+35 at all times. Grade and pave the driveway in a manner that provides a one-lane ingress and egress at all times.

Business Access
The commercial and industrial properties within the work zone generate a significant volume of heavy truck traffic. Contractors will be required to accommodate vehicular and truck traffic through the work zone during all construction operations. Complete all work that restricts driveway widths and impacts truck ingress and egress from driveways per the requirements outlined below for each driveway. Where paving gaps are required to accommodate large trucks, gaps shall be the full width of the driveway in order to accommodate access needs.

Stage construction operations to accommodate two-way access with a minimum of 22 feet in width through the construction zone at all times to the driveways on STH 55 at Stations 230'NB+80 LT, 237'NB'+75 RT, 239'NB'+45 RT and 241'NB'+45 LT. The contractor may reduce access to one lane with flagging operations as approved by the engineer.

Maintain access to business driveways on a minimum of base aggregate at all times except as follows. Close driveways for a maximum of 7 calendar days to complete roadway concrete paving operations. Close driveways for a maximum of 7 calendar days for grading, placement of base aggregate and pouring of driveways, unless modified below. Notify each business in writing a minimum of 2 weeks prior to performing any work that impacts access or closes a driveway.

Businesses located along the east side of STH 55 between CTH OO and Maloney Road are custom fabricators that may require accommodations for oversized shipments during construction via driveways located at Stations 229+50 RT and 243+55 RT. These businesses will provide advanced notice of approximately 10 weeks for oversized shipments. Provide oversized shipment egress from businesses through the construction site if required.

Dollar General, 1102 Lawe Street
Maintain access to one of the two driveways on Plank Road at Station 313'PL'+25 LT, and 311'PL'+15 LT at all times. Access will also be maintained from the driveway on Lawe Street outside of the construction limits.

Maintain driveway access to one of the two driveways to 1100 Lawe Street, Station 311'PL'+30 RT and Station 313'PL'+25 RT, at all times.

Kaukauna Meats, 312 Delanglade Street
Driveways at Station 217'NB'+65 RT and Station 281'NB'+15 RT may be closed to facilitate construction. Access will be maintained from the driveways on Blackwell Street.

Kramer's 55 and OO Mini Storage, 945 Hyland Avenue
Maintain driveway access to Station 13'WB'+45 LT at all times. Grade and pave the driveway in a manner that provides a one-lane ingress and egress at all times.

Hyland Industrial Condominiums, 930 Hyland Avenue
Maintain driveway access to Station 14'EB'+65 RT at all times. Coordinate all construction operations that restrict truck access to the property with the current occupants of the facility. Work impacting truck access may need to be performed on weekday evenings or weekends depending on the access needs of the current occupants of the facility.

Bassett Mechanical
The driveway on Delanglade Street at Station 229'NB'+60 RT may be closed as needed to accommodate construction, other than the special requirements for oversized shipments as noted above. Maintain driveway access on Hyland Avenue at Station 22'WB'+30 LT at all times. Grade and pave the driveway in a manner that provides a minimum one-lane ingress and egress at all times. Additionally, coordinate construction work with Bassett Mechanical to allow semi-truck trailer access to the Hyland Avenue driveway approximately one time every other week.

Hindu Temple of NE Wisconsin, 911 Delanglade Street and V&S Midwest Carriers, 1011 Delanglade Street

Maintain full width driveway access for ingress and egress of semi-trailer trucks to the shared driveway at Station 230'NB+80 LT, at all times except as follows: Close driveway during mainline concrete paving for one 24-hour period beginning any weekday at 7:00 AM and reopen driveway by 7:00 AM the following day. Close driveway for one 24-hour period between 7:00 AM Wednesday and 7:00 AM Thursday for placement of curb and gutter, driveway apron, and concrete trail. Perform all other construction operations that restrict the driveway width on a weekday outside the hours of 6:00 AM to 5:00 PM. Driveway closures will not be allowed during weekends. Coordinate any closures for the Hindu Temple access so they do not occur during any special weekday events.

XTRA Lease, 1210 Badger Road

Maintain full width access for ingress and egress of semi-trailer trucks to the driveway at Station 52+00 RT at all times between the hours of 7:00 AM and 6:00 PM Monday through Friday. Close driveway for one weekend for pavement removal, grading and placing base aggregate from Station 51+75 to the east limits on Badger Road. Close driveway for one additional weekend for placement of concrete pavement and integral curb and gutter from Station 51+75 to the east limits on Badger Road. Perform all other construction operations that restrict the driveway width outside the hours of 7:00 AM to 6:00 PM Monday through Friday.

Warm Sensations, 1151 Badger Road

Maintain access to one of the two commercial driveways at Station 51+25 LT and Station 52+15 LT at all times.

Team Industries

Driveway access at Station 39+80 on Maloney Road may be closed as needed to accommodate construction during grading/base aggregate and paving. Driveway access at Station 243'NB'+55 RT 55 may be closed as needed to accommodate construction during grading/base aggregate and paving other than the special requirements for oversized shipments as noted above. Maintain full width access for ingress to receiving entrance driveway at Station 237'NB'+75 RT and egress from receiving exit driveway at Station 239'NB'+45 RT between the hours of 6:30 AM and 4:30 PM Monday through Thursday and between 6:30 AM and 3:00 PM Friday. Close driveway for one weekend for placement of concrete pavement and one additional weekend for placement of curb and gutter, driveway apron, and concrete sidewalk. Perform all other construction operations that restrict the driveway width outside the hours of 6:30 AM to 4:30 PM Monday through Thursday and 6:30 AM to 3:00 PM Friday.

Badger Utilities, 1111 Delanglade Street and Mid Valley Industries, 1151 Delandglade Street

Maintain full width access for ingress and egress for semi-trailer trucks to the shared driveway to Station 241'NB'+45 LT between the hours of 7:00 AM and 6:00 PM Monday through Friday. Close driveway for one weekend for placement of concrete pavement and one additional weekend for placement of curb and gutter, driveway apron, and concrete trail.

Maintain access to driveway on Gertrude Street when the driveway on Delanglade Street is closed. Perform all other construction operations that restrict the driveway width outside the hours of 7:00 AM to 6:00 PM Monday through Friday.

Mid Valley Industries Gertrude Access
The driveway at 31'EB'+35 RT can be closed when necessary during Gertrude Street construction provided STH 55 driveway is not restricted.

Gertrude Street JS Health 1110 Gertrude Street
Maintain driveway access to Station 31'EB'+85 RT at all times. Grade and pave the driveway in a manner that provides a one-lane ingress and egress at all times.

Badger Graphics, 1120 Gertrude Street
Maintain full width access to the west driveway at Station 32'EB'+65 RT, at all times except as follows. Close driveway for a one week period to complete concrete paving, concrete curb and gutter, concrete apron, and concrete sidewalk construction.

Kwik Trip, 1101 Gertrude Street
Maintain access to both of the driveways at Station 30'EB'+75 LT and Station 32'EB'+85 LT at all times except as follows. Close each driveway for a maximum of 10 calendar days for placement of curb and gutter, driveway apron, and concrete sidewalk. One of the two driveways are to remain fully open at all times for ingress and egress of semi-tractor trailers.

Kaukauna Shell, 1350 Delanglade Street
Maintain access during stage 3 construction to both the driveway at Station 36'WB'+70 LT and the driveway at Station 38'WB+20 LT from the east project limits of Maloney Road at all times during construction. Coordinate work with the businesses and stage construction to accommodate truck delivery needs of the gas station and circulation through the restaurant drive through. Provide flagging to direct vehicles in and out of the property when work is taking place in the vicinity of the existing driveways.

Days Inn & Suites, 1201 Maloney Road
Maintain access during stage 3 construction to the driveway at Station 38'WB'+90 LT from the east project limits of Maloney Road at all times during construction.

Gustman, 1450 Delanglade Street
Driveway access at Station 265'NB'+15 RT may be closed as needed to accommodate construction. Access will be maintained from the northerly driveway on Delanglade Street outside of the construction limits.

Pedestrian Access
Pedestrian traffic shall be accommodated on existing, new, or temporary sidewalk. Staged sidewalk construction will be required in order to maintain sidewalk access on at least one side of the street at all times along STH 55/96 (Lawe Street), CTH J (Lawe Street), STH 96 (Plank Road), and STH 55 (Delanglade Street) between Lawe Street and Blackwell Street. A pedestrian crossing will be maintained at all times across STH 55 (Delanglade Street) at

CTH J (Lawe Street) and Desnoyer Street.. A pedestrian crossing will also be maintained across CTH J (Lawe Street) at all times. Maintain pedestrian crossings of all side streets on the same side(s) of STH 55 (Delanglade Street) that sidewalk access is provided on. Crossings of the side streets approaches may be temporarily relocated beyond the construction limits to provide the required access.

Restore permanent pedestrian access at CTH J (Lawe Street), STH 96 (Plank Road), and along the south side of STH 55/96 between the west project limits through CTH J (Lawe Street) prior to school starting on August 27, 2018.

All pedestrian crossings at the locations discussed above will be required to have ramps meeting ADA requirements. Any temporary sidewalk utilized will be a minimum of 4 feet wide and will have a minimum surface of temporary pedestrian surface asphalt. If a 4 foot temporary sidewalk width is used, a 5 foot wide section will need to be provided every 200 feet per ADA requirements. Separate pedestrian accommodations from the work zone with temporary pedestrian safety fence when a buffer less than 1 foot exists.

Opening Roundabouts
Do not open roundabouts to through traffic until the roundabout is completed including all concrete items, lighting, signing, pavement marking, and all finishing items.

Temporary Regulatory Speed Limit Reduction
A reduction of the posted regulatory speed limit from 70 mph to 55 mph is required when any of the following conditions are created within the project limits:

1. Lane(s) closed and workers are present and active in close proximity to an open lane.
2. Lane(s) narrowed to less than 12 feet and adjacent shoulder width is reduced.
3. Traffic is shifted partly or completely onto a shoulder and/or temporary pavement and shoulder width is reduced. At all other times the posted regulatory speed limit shall be 70 mph.

During periods when traffic conditions do not require Temporary Regulatory Speed Reduction, speed limit signs shall be changed to the permanent posted speed limit. This may require posted speed and signs changes twice a day or more. Changing temporary and existing/permanent signs between 70 mph and 55 mph shall be considered incidental to the item Traffic Control.

During approved temporary regulatory speed limit reductions, install regulatory speed limit signs on the inside and outside shoulders of the roadway at the beginning of the reduced regulatory speed zone, after all locations where traffic may enter the highway segment of every ½ mile within the reduced regulatory speed zone. Signs shall be installed at the end of the temporary regulatory speed zone and inform drivers the posted regulatory speed limit reverts back to 70 mph. To minimize possible confusion to the traveling public and to ensure appropriate speed enforcement, enhanced attention to placement and changing of speed limit signs is required.

Coordinate with department construction field staff to notify the Northeast Region Traffic Section with field location(s) of temporary regulatory speed zone. Primary contact phone number is (920) 366-4747 (secondary contact number is (920) 366-8033. Contact the Northeast Region Traffic Section at least 14-calendar days prior to installation of the temporary regulatory speed zone. After notification, Northeast Region Traffic will create a "Temporary Speed Zone Declaration" to meet statutory requirements allowing enforcement of this temporary regulatory speed limit.

When construction activities impeded the location of a post mounted regulatory speed limit sign, mount the regulatory speed limit sign on portable supports that meet the "crashworthy" definition and height criteria in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). (20110202)

IH 41 Traffic
Submit any traffic control change request to the engineer at least 72 hours prior to the actual traffic control change. A request does not constitute approval.

Non-Peak Hours
Northbound IH 41: 7:00 PM – 6:00 AM
Southbound IH 41: 7:00 PM – 6:00 AM

Allowable Single Lane Closures
Single lane closures on IH 41 are permitted as follows:

Northbound:

- During non-peak hours, except as noted in Holiday Work Restrictions.

Southbound:

- During non-peak hours, except as noted in Holiday Work Restrictions

Construction Access
Restrict work on IH 41 and within closed shoulders or closed lanes as allowed by the plans or engineer. Utilize temporary deceleration and acceleration lanes to/from the work zones. All construction access is subject to approval of the engineer.

Construction traffic cannot travel counter-directional adjacent to IH 41 traffic, except behind temporary concrete barrier.

No contractor vehicles shall be allowed to make U-Turns at existing maintenance crossovers or temporary crossovers between IH 41 northbound and southbound, unless approved by the engineer.

Delivery of equipment to IH 41 requiring the use of semi tractor and trailer shall only occur during those hours identified as non-peak work periods.

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.
stp-108-057 (20161130)

Portable Changeable Message Signs – Message Prior Approval
After coordinating with Department construction field staff, notify the Northeast Region Traffic Section at (920) – 366-8033 (secondary contact number is (920) 360-3107) three business days prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The Northeast Region Traffic Unit will review the proposed message and either approve the message or make necessary changes.

5. Holiday Work Restrictions.

IH 41 shall be restored to two lanes in each direction during the following periods. Do not perform work on, nor haul materials of any kind along or across any portion of the highways carrying IH 41 traffic, and entirely clear the traveled way and shoulders of such portions of the highways of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From 5:00 PM Friday to 10:00 PM Friday, May 4, 2018 for Fishing Season;
- From noon Friday, May 25, 2018 to 6:00 AM Tuesday, May 29, 2018 for Memorial Day;
- From noon Tuesday, July 3, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day,
- From noon Friday, August 31, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day.

Special Events
IH 41 shall be restored to two lanes in each direction during the following periods. Do not perform work on, nor haul materials of any kind along or across, any portion of the highway carrying IH 41 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 special event periods:

- Green Bay Packer home games and Packer Family Scrimmage: From five hours prior to game until 5 hours after the game for IH 41;
- Other events at Lambeau Field with 30,000 or greater attendance: From five hours prior to event until 5 hours after the event for IH 41.

If the contractor fails to restore IH 41 to two lanes in each direction during the above times, the department will assess the contractor $1,750 per lane in liquidated damages for each hour IH 41 is not restored to two lanes in each direction. The department will administer interim liquidated damages for the road not being open to traffic under the Failing to Open Road to Traffic administrative item.

Prior to preparing bids, verify the dates of each festival, game, or event listed to obtain current dates for work restrictions.

6. Utilities.

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

Additional detailed information regarding the location of discontinued, relocated, and/or removed utility facilities is available in the work plan provided by each utility company. View these documents at the Regional Office during normal working hours.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide a good faith notice to both the engineer and the affected utility of when the utility is to start work at the site. Unless specified otherwise in this article, provide this notice 14 to 16 calendar days in advance of when you anticipate the prior work being completed and provide a confirmation notice to the engineer and the utility 3 to 5 working days before the site will be ready for the utility to begin its work.

City of Kaukauna (Dept. of Public Works – Sanitary). City of Kaukauna has sanitary sewer facilities within the project limits at the following locations:

- From the west project limits on STH 55 (Lawe Street) to the east project limits on CTH J within the existing roadway.
- From the east project limits on STH 96 to CTH J within the existing roadway.
- On STH 55 (Delanglade Street) from CTH J to Blackwell Street within the existing roadway.
- On CTH OO from the west project limits to Station 227+00 on STH 55 (Delanglade Street). Within the existing roadway on CTH OO and through the vision corner outside the existing roadway.
- On STH 55 (Delanglade Street) from Station 231+25 to the north project limits along the westerly right-of-way.

During construction:

- Sanitary sewer and laterals on STH 55 (Lawe Street), CTH J and STH 96 will be replaced as part of the project.
- Existing sanitary manholes within the project limits will be adjusted or reconstructed as part of the project.

Kaukauna Utilities (Water). Kaukauna Utilities Water has watermain within the project limits as follows:

- 12” main on the south side of STH 55 (Lawe Street) crossing the railroad tracks in casing pipe.
- 8” main on STH 96 located in the north side terrace.
- 12” main on the west side of STH 55 (Delanglade Street) between Lawe Street and Blackwell Street.
- 12” main on the east side of STH 55 from Blackwell Street to the north project limits crossing the railroad tracks in a casing pipe.
- 8” main crossing STH 55 on the north side of Oviatt Street.
- 6” main crossing STH 55 on the north side of Desnoyer Street.
- 8” main crossing STH 55 on the south side of Blackwell Street.
- 12” main on the south side of CTH OO west of STH 55 and on the north side of CTH OO east of STH 55.
- 12” main on the south side of Badger Road.
- 8” main on the north side of Gertrude Street from the west project limits to Station 31+75 and on the south side of Gertrude Street from Station 31+75 to STH 55.
- 12” main along the south side of Maloney Road.

During construction, Kaukauna Utilities Water will:

- Provide a temporary water service to 1023-1025 Lawe Street that crosses Lawe Street at approximately Station 208+90 during underground construction in this area until it is determined if the 1 ½” service conflicts with new sanitary sewer or storm sewer construction. If the service is found to be in conflict, Kaukauna Utilities will reconstruct the service from the main to the shutoff box. Kaukauna Utilities anticipates needing one working day to complete this work.

- Remove the existing water valve manhole at Station 209+50 NB and disconnect a 2-inch jump line that interconnects the adjacent 8-inch and 12-inch water mains. Kaukauna Utilities anticipates needing two working days to complete this work.
- Adjust hydrants and curb stops.

Water valve boxes will be adjusted as part of the contract.

Water main discontinued in place:

- Kaukauna Utilities Water replaced a majority of the watermain along the project in 2013 and 2014. Record drawings showing new mains and discontinued mains have been incorporated into the plan base map. Any watermain encountered during construction may be removed if in conflict with proposed work upon field verification that it is discontinued.

Kaukauna Utilities (Electric). Kaukauna Utilities has existing overhead electric facilities throughout the project limits. Existing overhead lines will be reconstructed to underground electric prior to construction and tie back into existing overhead facilities on all sideroads at the first existing pole not in conflict with the proposed construction. The underground electric route will be as follows:

- Crossing STH 55 (Lawe Street) at approximately Station 208+10.
- Behind the west curb of STH 55 (Delanglade Street) from Station 210+70 to Station 215+80 tying to the existing overhead crossings at Oviatt Street and Desnoyer Street.
- Behind the west sidewalk/trail of STH 55 (Delanglade Street) from Station 219+00 to Station 251+50, crossings CTH OO at Station 17+50, crossing Gertrude Street at Station 34+00 and crossings of STH 55 at Stations 220+75, 224+10, 231+30, 233+95, 247+50 and 251+65.
- Along the north side of CTH OO from STH 55 to intercept existing overhead lines at Station 21+50.
- Along the south side of Badger Road from STH 55 to intercept existing overhead lines at Station 51+20.
- Crossing Badger Road at Station 51+75.
- Along the north terrace of Gertrude Street from STH 55 to beyond the west project limits.
- Along the south right-of-way of Maloney Road from STH 55 to intercept a new pole at Station 37+75.
- Crossing under IH 41, northbound off ramp and southbound on ramp at Station 1114+00.
- Along the north right-of-way line of the southbound on-ramp from Station 1114+00 to the west right-of-way line of STH 55, and along the west right-of-way of STH 55 from the southbound on-ramp to Station 267+00.
- Crossing STH 55 at Station 267+00.

Overhead lines will be constructed at the following locations:

- Across the railroad tracks at Station 220+00.
- Across STH 55 at Station 220+75.
- Along the north side of CTH OO from the west project limits to Station 17+00 and from Station 22+65 to the east project limits.
- Along the south side of Badger Road from Station 51+25 to the east project limits.
- Along the south side of Maloney Road from Station 37+75 to the east project limits.

During construction, Kaukauna Utilities Electric will:

- Install service lines to the traffic signal controller at the STH 55/STH 96/CTH J intersection.
- Install service lines to the street light controller cabinets at the IH 41 ramps.
- Install all corridor street lights and associated conduit and wiring, including street lights at the CTH OO and Maloney Road/Gertrude Street roundabouts.
- Hold poles as necessary for grading and sewer installations, including removing and resetting guy anchors that interfere with construction. Provide a minimum of 5 working days notification to Kaukauna Utilities prior to needing a pole hold.

Coordinate all construction operations with Kaukauna Utilities Electric to allow for installation of service and lighting conduits after grading operations and prior to paving operation and installation of street lights after paving operations.

Charter Communications (communication line). Charter Communications has overhead and underground facilities within the project limits. Existing overhead lines will be reconstructed to underground lines prior to construction in a joint installation with Kaukauna Utilities Electric and tie back into existing overhead facilities on all side roads at the first existing pole not in conflict with the proposed construction. Charter Communications will also install additional underground facilities that are not joint with Kaukauna Utilities Electric. The underground communications cable route will be installed prior to construction as follows:

- Along the north right-of-way line of STH 55 (Lawe Street) from west of the construction limits to STH 55 (Delanglade Street).
- Behind the west curb of STH 55 (Delanglade Street) to Station 219+00 with a crossing of STH 55 at approximately Station 210+35.
- Behind the west sidewalk/trail of STH 55 (Delanglade Street) from Station 219+00 to Station 247+00 with crossings of CTH OO at Station 17+60 and crossings of STH 55 at the intersection of Oviatt Street and Desnoyer Street, Stations 220+75, 224+10, 233+95, 237+15, and 247+20.
- Along the north side of CTH J to intercept a pole at Station 10+00.
- Along the north side of Oviatt Street west of STH 55 to a pole at Station 10+30 and along the south side of Oviatt Street east of STH 55 to a pole east of the construction limits.
- Along the north side of Desnoyer to a pole at Station 21+70.
- Along the north side of CTH OO from STH 55 to a pedestal at Station 22+60, left.

- Along the south side of Badger Road from STH 55 to a pole at Station 51+20.
- Along the south right-of-way of Maloney Road from STH 55 to a new pole at Station 38+50.
- Crossing Maloney Road at Station 38+50.
- Along the north right-of-way line of Maloney Road from STH 55 to a pedestal at Station 39+75.
- Along the east side of STH 55 from Maloney Road to intercept existing facilities at Station 250+75.

During construction Charter Communications will:

- Expose and adjust the existing cable between inlet 140.1 and endwall 140 on STH 55 at Station 252+00 right (joint with AT&T).
- Adjust existing pedestal on STH 55 at Station 252+90 right.
- Expose and adjust the existing cable between manhole 110 and inlet 110.3 and the existing cable between inlet 105.4 and inlet 105.5 at the southbound ramps roundabout (joint with AT&T).
- Expose and adjust the existing conduits along STH 55 northbound from Station 263+00 2' left to Station 264+25 20' right (joint with AT&T).
- Remove existing pedestal at 262+25, right, and install an at grade vault at/near 262+57, 24' left.
- Charter Communications anticipates needing one working day to complete the adjustments at each location.

Provide a minimum of five working days notification to Charter Communications prior to beginning work in each area so adjustments can be completed concurrently with roadway construction operations.

AT&T Wisconsin (communication line). AT&T Wisconsin has overhead and underground facilities within the project limits. Existing overhead lines along the west side of STH 55 (Delanglade Street) between STH 55 (Lawe Street) and CTH OO will be reconstructed to underground lines prior to construction in a joint installation with Kaukauna Utilities Electric.

Prior to construction AT&T Wisconsin will:

- Install an underground fiber optic cable along the south STH 96 right-of-way from Station 310+55 to Station 312+87 to an existing pole. The existing fiber optic cable in this area under the existing sidewalk on the south side of STH 96 will be discontinued in place and the existing pole at Station 311+90, right, will be removed.
- Install an underground duct package behind the west STH 55 curb from Station 210+74 to Station 220+25. Pedestals will be placed in the terrace at approximately Stations 210+74, 211+90, 213+00, and 217+26. Pedestals will be placed behind the proposed walk at approximately Stations 219+34 and 220+25. All aerial cable and poles removed.

- Install an underground duct package along the right-of-way vision corner in the southwest quadrant of the STH 55/CTH OO intersection, to a crossing of CTH OO at Station 17+00, to a crossing of STH 55 at Station 225+25 to 3’ off the easterly right-of-way of STH 55 at approximately Station 225+25. The duct package will then be installed along the north right-of-way line of CTH OO to an existing pedestal at approximately Station 22+65, left.
- Install an underground crossing of STH 55 at approximately Station 231+35 with pedestals on each side of the road behind the trail and sidewalk. Cable will run southerly along the west right-of-way of STH 55 to a pedestal behind the sidewalk at approximately Station 230+75.
- Install an underground crossing of STH 55 at approximately Station 234+65 that will tie into the existing pedestals on each side of the road with pedestals on each side of the road behind the trail and sidewalk.
- Install an underground crossing of STH 55 at approximately Station 234+60 with pedestals on both sides of the road behind trail and sidewalk, and install new cable northerly 3’ inside the west right-of-way of STH 55 to a pedestal at approximately Station 241+90.
- Install an underground crossing of STH 55 at approximately Station 247+75 to a pedestal along the south right-of-way of Gertrude Street at Station 33+00 and to a pedestal behind the trail in the southeast quadrant of the roundabout. Cable will run easterly along the south right-of-way line on Maloney Road to a pedestal at Station 39+00. Cable will also cross Maloney Road at approximately Station 36+00 and run northerly 3’ inside the STH 55 east right-of-way line to a pedestal behind the trail at Station 251+00 right.

During construction AT&T Wisconsin will:

- Expose and adjust as necessary the existing cable crossing between storm manholes 10.1 and 12.0 at Station 209+75, 25’ left. Work will be completed in two days.
- Expose and adjust the existing cable in conflict with M-44-0002 at Station 234+25, left. Work will be completed in one working day.
- Adjust the height of existing pedestals after rough grading. Pedestals are located on STH 55 at Station 234+70 right, 231+37 left and right, 234+65 right, 240+40 right, 240+55 left, 241+80 left, 253+00 right, and on Gertrude Street at Station 31+00 right. Each pedestal adjustment will be completed in approximately two hours.
- Expose and adjust the existing conduits between inlet 140.1 and endwall 140 on STH 55 at Station 252+00 right (joint with Charter Communications). Work will be completed in one working day.
- Expose and adjust the existing conduits between manhole 110 and inlet 110.3 and the existing conduits between inlet 105.4 and inlet 105.5 at the southbound ramps roundabout (joint with Charter Communications). Work will be completed in one working day.
- Expose and adjust the existing conduits along STH 55 northbound from Station 263+00 2’ left to Station 264+25 20’ right (joint with Charter Communications). Work will be completed in one working day.

Provide a minimum of 5 working days notification to AT&T prior to beginning work in each area so adjustments can be completed concurrently with roadway construction operations.

Net Lec LLC (communication line). Net Lec has overhead facilities within the project limits along STH 55 (Delanglade Street) from Desnoyer Street to the IH 41 north bound ramps. Existing overhead lines will be reconstructed to underground lines prior to construction in a joint installation with Kaukauna Utilities Electric and tie back into existing overhead facilities on all side roads at the first existing pole not in conflict with the proposed construction. The underground communications cable route will be installed prior to construction as follows:

- From pole on north side of Desnoyer Street beyond the construction limits west of STH 55 along the north side of Desnoyer Street to STH 55 (Delanglade Street).
- Behind the west curb of STH 55 (Delanglade Street) from the north side of Desnoyer Street to Station 219+00.
- Behind the west sidewalk/trail of STH 55 (Delanglade Street) from Station 219+00 to Station 251+75 where a connection will be made with TDS facilities, with a crossing of CTH OO at Station 17+80.

TDS Metrocom (communication line). TDS Metrocom has underground lines along the IH 41 northbound off ramp and on ramp. The underground lines will be relocated prior to construction as follows:

- Along the northbound off ramp from Station 1104+00 to STH 55 a distance of 1’ off the right-of-way.
- Along the west side of STH 55 1’ off the right-of-way to Station 251+00.
- Crossing STH 55 at Station 251+00.
- Along the east side of STH 55 1’ off the right-of-way to the northbound on-ramp.
- Along the northbound on-ramp 4’ off the right-of-way to tie back to existing line beyond the construction limits.

City of Kaukauna (communication line). The City of Kaukauna has overhead facilities within the project limits along STH 55 (Delanglade Street) from Blackwell Street to Badger Avenue. Existing overhead lines will be reconstructed to underground lines prior to construction in a joint installation with Kaukauna Utilities Electric and tie back into existing overhead facilities on Badger Avenue. The underground communications cable route will be installed prior to construction as follows:

- Behind the sidewalk and trail from the southwest corner of STH 55 and Blackwell Street to Station 234+00.
- Crossing STH 55 at Station 234+00.
- Along the south right-of-way line of Badger Road to intercept a pole outside the construction limits.

The City of Kaukauna will install an independent underground crossing of STH 55 at Station 219+40.

Level 3 Communications LLC (communication line). Level 3 has existing underground facilities within the project limits at the following locations.

Facilities along STH 55 (Lawe Street) and STH 96:

- Along the south right-of-way line of STH 55 (Lawe Street) from west of the project limits to STH 96.
- Behind the proposed sidewalk on the west side of STH 96 from STH 55 to Station 311+00.
- Under the existing sidewalk on the west side of STH 96 from Station 311+00 to Station 311+25.
- Crossing STH 96 at Station 312+30 to a riser on a pole at Station 312+40 left.

No conflicts are anticipated with this underground line.

Facilities along the south side of CTH OO:

- Approximately 40' south of the existing CTH OO centerline from the west project limits to the east project limits crossing STH 55.

This underground line is currently being investigated for conflicts. If in conflict, relocation will be complete prior to the start of construction.

WE Energies (Gas). WE Energies has an existing 4" gas line and an existing 8" distribution line within the project limits. WE Energies plans to relocate facilities in conflict with construction and discontinue the existing facilities. No conflicts are anticipated with the new facilities.

The 4" PE gas main will be located in the following locations:

- Under the new sidewalk along the east side of STH 55 from Station 210+00 to Station 219+00.
- Behind the east sidewalk of STH 55 from Station 219+00 to Station 220+15.
- Along the east right-of-way of STH 55 from Station 224+00 to Station 227+20 where it will tie into the existing 4" main that will remain in place from Station 227+20 to Station 233+65.
- Under the west sidewalk from Station 233+65 to Station 241+80.
- Along the east right-of-way of STH 55 from Station 249+65 to Station 251+80.
- Along the west right-of-way of STH 55 from Station 251+20 to the northbound off-ramp, crossing the northbound off ramp, IH 41 and the southbound on-ramp, and connecting to the existing 4" main at located along the west right-of-way of STH 55 at Station 263+00. The existing 4" main will remain in place from Station 263+00 to the north project limits.
- Along the north right-of-way line of CTH OO from Station 12+50 to Station 15+75 and from Station 19+75 to Station 22+00 where it will tie into the existing 4" main that will remain in place to the east project limits.
- Behind the proposed north sidewalk on STH from Station 311+25 through the southeast quadrant of the STH 96/CTH J intersection.
- The 4" main will cross STH 55 at Stations 213+20, 216+20, 226+85, 233+65, and 251+00, it will cross CTH OO at Station 21+50, and it will cross CTH J at Station 101+10. New service lines will also cross STH 55 and CTH J.

- Bump outs will be constructed around the proposed street lights at 227+80 NB and 231+15 NB.
- See work plan for additional information on side road routes and crossings.

New 8" distribution main will be reconstructed outside the limits of construction south of CTH OO and north of Badger Road. Within the project limits, the new 8" distribution main will be constructed on the following route:

- Crossing CTH OO at Station 21+59.
- Along the north right-of-way line of CTH OO from Station 21+59 to Station 20+00.
- Along the east right-of-way line of STH 55 from Station 224+25 to Station 226+83.
- Crossing STH 55 at Station 266+83.
- Along the west right-of-way of STH 55 from Station 266+83 to Station 233+61.
- Crossing STH 55 at Station 233+61 and running east along the south right-of-way of Badger Road.

A portion of the discontinued 4" and 8" main is in conflict with grade cuts and proposed storm sewer. This main is believed to have an asbestos wrap. WE Energies Gas will perform testing during relocation work to confirm the pipe has asbestos wrap. If tests are positive, We Energies Gas will remove portions of main in conflict concurrent with construction following pavement removal operations. The sections of pipe believed to have asbestos wrap and anticipated lengths of removal are as follows:

4" Distribution Main:

- STH 96, Station 310+00 – Station 312+00; 200'
- CTH J, Station 100+00 – 101+00; 100'
- STH 55 crossing at Oviatt Street; 70'
- STH 55 crossing Desnoyer Street; 70'
- STH 55 Station 209+00 - Station 213+00, 400'
- STH 55 Station 215+50 - 216+25; 75'
- STH 55 Station 218+50 – Station 219+70; 120

8" High Pressure Main:

- Blackwell Street Station 31+60; 60'
- STH 55 Station218+75 – Station 219+50; 75'
- STH 55 Station 219+81; 10'
- STH 55 Station 233+50 – Station 235+50; 200'
- STH 55 Station 240+00 – Station 242+00; 200'
- STH 55 Station 245+03; 10'
- Maloney Road Station 36+50; 10'

Notify We Energies a minimum of 10 working days prior to pavement removal being complete at each location. The total time required to complete the removal in all locations is 15 working days.

7. Municipality Acceptance of Sanitary Sewer and Water Main Construction.

Both the department and City of Kaukauna personnel will inspect construction of sanitary sewer under this contract. However, acceptance of the sanitary sewer construction will be by the City of Kaukauna.
stp-105-001 (20140630)

8. Referenced Construction Specifications.

Construct the sanitary sewer work conforming to the latest edition of the Standard Specifications for Sewer & Water Construction in Wisconsin. 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.

9. Railroad Insurance and Coordination - Wisconsin Central Ltd (CN).

A Description
Comply with standard spec 107.17 for all work affecting Wisconsin Central Ltd (CN) property and any existing tracks.

A.1 Railroad Insurance Requirements
In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3.
Insurance is filed in the name of Choose an item..

Notify evidence of the required coverage, and duration to

Jackie Macewicz, Manager
Public Works;
1625 Depot Street
Stevens Point, WI 54481
Telephone (715) 345-2503
E-mail: Jackie.macewicz@cn.ca.

Also send a copy to the following:

Jared Kinziger
NE Region Railroad Coordinator
944 Vanderperren Way, Green Bay, WI 54304
Telephone (920) 492-7713
E-mail: jared.kinziger@dot.wi.gov.

Include the following information on the insurance document. Also include information in the table below:

Project: 4650-08-71
Work Performed: Highway reconstruction

#	Route Name	City/ County	Crossing ID	RR Subdivision	RR Milepost
1	Delanglade St.	City of Kaukauna, Outagamie County	180053T	Fox River	221.97
2	Lawe St	City of Kaukauna, Outagamie County	180049D	Fox River, Thilmany Spur	221.45

A.2 Train Operation

#	Passenger Train Volume	Passenger Train Speed	Freight Train Volume	Freight Train Speed	Frequency	Switch Train Comment
1	0		12	40	Daily	No switch trains
2	0		2 (3 to 4 days per week)	10	Daily	No switch trains

- Switch trains are in addition to freight and passenger trains.

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

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

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

Flagging Contact
Submit by US Mail a "Request for Flagging Services and Cable Location" form with prepayment to: Mary Ellen Carmody, CN, 24002 Vreeland Road, Flat Rock, MI 48134; Telephone (734) 783-4533. The form can be obtained at:
http://www.cn.ca/en/delivering-responsibly/safety/erailsafe/utility-installations

Requests for flagging and cable locates can take up to five business days after the railroad receives the paperwork. Reference the Wisconsin Milepost and Subdivision located in A.1. Advise Ms. Carmody that the flagging services are to be billed at the rate for a public highway project.

Cable Locate Contact
In addition to contacting Diggers Hotline, follow the procedure listed under Flagging Contact.

Wisconsin Central Ltd (CN) will only locate railroad owned facilities buried in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 Work by Railroad
The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. At the Lawe Street Crossing the railroad will remove the track and crossing surface. Then the contractor will perform all work listed in the Prosecution and Progress, Lawe Street Railroad Crossing 24-Hour Track Closure. Then the railroad will place 12" of ballast to bottom of tie, track and a new full composite timber panel crossing surface. The railroad will install all new, cantilevers, gates and bungalow that includes the wiring necessary for the interconnection with the new traffic signals.

At the Delanglade Street railroad crossing the railroad will remove the crossing surface material, rehab and raise the existing track about 2 inches, place a new full composite timber panel crossing surface. The railroad bungalow is staying in place and the railroad signals and gates are being relocated.

The railroad will also be removing the railroad signals at both crossings prior to the major excavation then reinstalling them with all new wires once major excavation is done. A minimum of four weeks' notice shall be given to Jackie Macewicz prior to when the railroad signals need to be removed so she can make arrangements for this work.

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

A.5 Temporary Grade Crossing
If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 at least 40 days prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

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

The following conditions may also warrant flagging:

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

Projects with concurrent activity may require more than one flagger.

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

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

C Flagging by Railroad– Railroad Does Not Pay Flagging Costs

C.1 General

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

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

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

C.2 Rates – Wisconsin Central Ltd and Sault Ste. Marie Bridge Company (CN)
The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

$1,300 daily rate (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses) for a ten hour day (this includes 2 hours of overtime hours to set/remove flags) flagging day at the job site;

$1,500 daily rate (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses) for a ten hour day (this includes 2 hours of overtime hours to set/remove flags) flagging day at the job site on Saturdays, Sundays or holidays;

$150 per hour overtime rate for all time worked before or after the ten hour flagging day.

The railroad will require prepayment for flagging. Any time worked before or after the ten-hour flagging day will be billed at the overtime rate. The contractor is responsible for knowing the requirements of the railroad for arranging and terminating flagging services and for the associated costs of those services.

C.2 Reimbursement Provisions
The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in section B above, the department will reimburse 50% of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event actual flagging rates exceed the rates stated above, the department will reimburse 100% of the portion of the rate that is greater than the rates stated above.

C.3 Excluded Conditions
The department will not reimburse any of the cost for additional flagging attributable to the following:

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

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

C.4 Payment for Flagging
The department will pay for the department's portion of flagging reimbursement as specified in section C of this provision under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
801.0117	Railroad Flagging Reimbursement	DOL

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

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

D Rail Security Awareness and Contractor Orientation

All employees of contractors who work on CN properties are required to have minimum CN Safety and Security Awareness training. This training can be obtained by registering and following the CN link through www.contractororientation.com. This training is good for a period of one year.

a. Exception: CN has exempted from this training those it classifies as "Delivery Persons". Delivery Persons include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

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

stp-107-034 (20170615)

10. Work by Others.

The City of Kaukauna will arrange for removal of the temporary traffic signals at the intersection of STH 55 with Gertrude Street/Maloney Road. Contact Dave Strelcheck at (920) 766-6305 at least three weeks in advance of the start of Stage 1 of construction. Allow the City of Kaukauna two days to complete the removal of the temporary traffic signals concurrent with the start of Stage 1 work.

Kaukauna Utilities will install all project street lighting except for the street light associated with the traffic signals and the street lights located at the IH 41 ramp roundabouts. Coordinate all construction activities with Kaukauna Utilities and allow access to the work zone to place conduit and street lights during all stages of construction. The contact for Kaukauna Utilities is Eric Miller, (920) 462-0214.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Tim Rank at (920) 360-2579.
stp-107-054 (20080901)

12. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

1. Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
    a. Washing with ~212º F water (steam clean), or
    b. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
    c. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is

not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104º F) application.

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

13. Environmental Protection, Non-Aquatic Invasive Species Plants.

Phragmites and Common Teasel, invasive plant species, are known to exist within the project limits and in areas of ground disturbance or excavation work as shown in the plans. All topsoil that will be excavated or salvaged as part of the work within the contract shall be salvaged and used as topsoil within the project limits, placed in designated areas if shown in the plan, placed as fill per standard spec 205.3.12 or deposited at an engineer approved waste site. All waste sites are subject to review and approval by the department and shall be suitable for the waste of material containing invasive species to control their spread in compliance with NR 40. Waste sites suitable for invasive species would be areas that would prevent or control the growth and spread of the plant by burying, mowing or other control practices. The contractor shall submit his method for managing topsoil on this project for approval as part of the Erosion Control Implementation Plan. Prior to moving equipment out of infested area clean soils, seeds, plant parts, or invertebrates from exterior surfaces. Use most effective method that is practical by the following methods: Brush, broom, or other hand tools; high pressure air; steam cleaning; or portable wash station that contains runoff from washing equipment. Do not clean equipment, vehicles or trailers in or near waterways as it may promote the spread of invasive species downstream.

14. Environmental Protection, Stream Work.

An unnamed tributary to Apple Creek enters the existing storm sewer system at Station 234+25 left. Isolate any active stream flow during storm sewer installation and manhole construction.

15. Environmental Protection, By-Pass Pumping.

Add the following to standard spec 107.18:

If by-pass pumping is required, the means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for each location it is required. The submittal shall include how the intake will be managed to not cause an increase in the background level turbidity during pumping; equipment pumping rate capabilities; discharge energy dissipation; and erosion controls. For by-pass pumping that will extend beyond one working day, the submittal should also include how the work zone will be managed and protected should the pump fail; be shut down due to unacceptable water quality; or storm water flows exceed the pumping rate of equipment. After setup of the approved by-pass pumping operation, the contractor shall demonstrate that the means and methods will pump the water at an acceptable water quality prior to

starting work that necessitates the by-pass pumping. The cost of all work and materials associated with by-pass pumping is incidental to the bid items the work is associated with. Erosion control devices beyond the discharge energy dissipation point will be paid for at the contract unit prices for the items that are included in the plan.
(NER 11-0711)

16. Environmental Protection, Dewatering.

Add the following to standard spec 107.18:

If dewatering is required, treat the water to remove suspended sediments by filtration, settlement or other appropriate best management practice prior to discharge. The means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include the details of how the intake will be managed to not cause an increase in the background level turbidity prior to treatment and any additional erosion controls necessary to prevent sediments from reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Construction Technical Standards, Dewatering Code #1061, "Dewatering". This document can be found at the WisDNR website: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

The cost of all work and materials associated with water treatment and/or dewatering is incidental to the bid items the work is associated.
(NER12-1010)

17. Coordination with Businesses and Residents.

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least two weeks prior to the start of work under this contract and hold one meeting per month thereafter. The contractor shall arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for the meeting(s). The contractor shall schedule the meeting(s) with at least two weeks prior notice to the engineer to allow for these notifications.
stp-108-060 (20141107)

The contractor shall also hold a meeting one week prior to each traffic staging change.

18. Notice to Contractor – Coordination with the Railroad.

Wisconsin Central Ltd. will be performing crossing work concurrently with this project as outlined in Article 7. Railroad Insurance and Coordination and as shown in the construction details in the plan. Close coordination with the railroad is required for work at both the Lawe Street and Delanglade Street crossings. Prior to starting work at either crossing, the

contractor shall set up a meeting with the railroad and the department to coordinate the timing and staging of work. At the Lawe Street crossing, upon the railroads removal of the existing tracks and crossing surface on Lawe Street, the contractor has a 24-hour window at the railroad crossing to complete all work outlined in Article 3. Prosecution and Progress.

19. Notice to Contractor, IH 41 Interchange Waste Site.

The department will make the areas between the ramps and the mainline at the IH 41 and STH 55 interchange available to the contractor for use as a waste site for non-contaminated excavated material. The contractor shall submit a proposal through the Erosion Control Implementation Plan showing the area to be utilized, the proposed shaping and finishing of the site, drainage maintenance, erosion control, and safe ingress/egress. When working in the waste area the contractor shall maintain a minimum of an 18-foot clear zone from the traveled way at all times.

20. Notice to Contractor, Topsoiling and Restoration.

Place topsoil and permanently restore all ditches upon completion of grading to the subgrade shoulder point height, including foreslope, ditch bottom, and backslopes out to the slope intercepts. The contractor shall show timing of these EC mobilizations as part of proposed schedule in the ECIP.

21. Removing Pavement.

Add the following to standard spec 204.4:

Some of the concrete pavement will be removed by utility construction prior to the project. The quantity will vary depending on the trench widths deemed necessary for utility construction. The department will measure removing pavement from back of curb to back of curb in the reconstruction area. No deduction will be made for asphalt trenches remaining from the utility work.

22. Abandoning Sewer, Item 204.0291.S.

A Description

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

B Materials

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

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.
stp-204-050 (20080902)

23. Remove Ramp Gate System, Item 204.9060.S.01.

A Description
This special provision describes removing ramp gate systems at the STH 55 and IH 41 Interchange according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Remove Ramp Gate Systems in advance of Stage 3 construction. Notify the department at least five working days prior to the removal.

Remove the pole, arm, flashers, pedestal bases, transformer bases, control cabinet, solar panel and hardware. Transport off site to the contractor facilities or to a recycling/garbage facility.

The underground cable, wires, and conduits shall become the property of the contractor to be disposed of properly.

D Measurement
The department will measure Remove Ramp Gate System as a single lump sum unit of work, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Remove Ramp Gate System	EACH

Payment for Remove Ramp Gate System is full compensation for removal and transporting to the appropriate facility.

The department will pay separately for removal of concrete bases.

24. QMP Base Aggregate.

A Description

A.1 General

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

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

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

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

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

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

A.2 Small Quantities

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

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

A.2.1 Quality Control Plan

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

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

A.2.2 Contractor Testing

1.

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

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

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

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

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

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

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

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

A.2.3 Department Testing

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

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

B Materials

B.1 Quality Control Plan

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

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

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

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

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

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

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

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

B.4.3 Control Charts

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

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

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

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

B.5 Contractor Testing

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

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

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

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

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

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

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

B.6 Test Methods

B.6.1 Gradation

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

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

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

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

1. Control limits are at the upper and lower specification limits.
2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.

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

B.6.2 Fracture

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

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

B.6.3 Liquid Limit and Plasticity

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

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

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

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

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
   1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
   2. For fracture, increase the QC testing frequency to at least one test per gradation test.

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

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

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

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

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

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

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

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

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

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

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

B.8.3 Independent Assurance

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

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

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

B.9 Dispute Resolution

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

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

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

or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C (Vacant)

D (Vacant)

E Payment

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

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

stp-301-010 (20170615)

25. Stamping Colored Concrete, Item 405.1000.

Replace standard spec 405.2.1.1(1) with the following:

(1) Integrally color concrete using non-fading pigments conforming to ASTM C979.

- For desert tan: use synthetic non-fading iron oxide at a loading of 6% percent or more by weight of total cementitious material in the mix. Match the concrete color in reasonably close conformance with Desert Tan color, which is similar to Federal Standard 595 - FS 33446.

Replace standard spec 405.2.1.1(3) with the following:

(3) The department will accept the color based on comparison to the Federal color chart.

Replace the entire contents of standard spec 405.2.2 with the following:

(1) Furnish desert tan full-depth colored concrete conforming to standard spec 405.2.1

(2) The stamped tool pattern shall be flagstone, similar to the stamped pattern that exists the STH 29 Interchange with CTH FF in Brown County.

(3) Use an antiquing release agent.

Replace the entire contents of standard spec 405.3.2 with the following:

(1) Color concrete full-depth conforming to standard spec 405.3.1

(2) Stamp concrete surfaces according to the manufacturer's instructions.

(3) Apply antiquing release agent according to the manufacturer's instructions.

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

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

B (Vacant)

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

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

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

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

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

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

27. Protection of Concrete.

Add the following to standard spec 415.3.14:

The contractor shall provide for a minimum of one concrete finisher to remain on the project site after final finishing of all concrete surfaces until such time as the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of

imprint, malicious or otherwise. The finisher shall actively and continuously patrol on foot the newly placed concrete and repair any damage to the surface that might be sustained as described above.

The cost for providing the finisher(s), the necessary equipment, and materials shall be construed to be included in the contract unit price for each concrete item.
(NER11-0127)

28. Ride Quality.

Replace standard spec. 440.3.4.2 (2) with the following:

Coordinate with the engineer to schedule profile runs for acceptance. Provide 48 hour notice to the engineer and Northeast Region Soils, Pavements and Materials Assistant at (920) 362-6360 prior to performing profile runs for all initial and rescheduled tests, unless otherwise approved by the department. The department may require testing to accommodate staged construction or if corrective action may be required.
(NER17-0714)

29. Storm Sewer Class III-B.

Modify the table 608-1 in standard spec 608.2.1 as follows:

Class III-B allowable materials: corrugated polypropylene only.

30. Catch Basins, Manholes, and Box Manholes.

Modify standard spec 611 as follows:

Construct catch basins, manholes, and box manholes using only precast or cast in place concrete masonry options. Do not use the brick masonry or concrete brick or block masonry options.

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

Supplement standard spec 611.3 as follows:

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

When using rubber adjustment rings:
Rubber grade rings shall be in a flat and/or tapered configuration of a size to closely match the inside and outside dimensions of circular or rectangular structures, installed individually

or in combination not to exceed 3-inches in height. If more than 3-inches of adjustment is necessary, use one concrete ring 3-inches or more in height with rubber rings on top of the concrete ring. If multiple rubber adjustment rings are necessary, a maximum of two adjustment rings can be used. Rubber grade rings shall be tapered to match the cross slope and profile of the roadway.
(NER13-0611)

32. Insulation Board Polystyrene, 2-Inch, Item 612.0902.S.01.

A Description
This special provision describes furnishing and placing polystyrene insulation board as shown on the plans and as hereinafter provided.

B Materials
Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230, except as hereinafter revised.

Delete flammability requirement.

B.1 Certification
Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the project engineer.

C (Vacant)

D Measurement
The department will measure Insulation Board Polystyrene (size) by area in square yards of work, completed and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
612.0902.S.01	Insulation Board Polystyrene 2-Inch	SY

Payment is full compensation for all excavation; and for furnishing and placing the insulation board.
stp-612-005 (20030820)

33. Salvaged Rail, Item 614.0920; Salvaged Guardrail End Treatments, Item 614.0925.

Remove guardrail and guardrail end treatments according to the pertinent requirements of standard spec 614 and as hereinafter provided.

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

Give two days advance notice to Outagamie County before starting the beam guard removal work to coordinate pickup arrangements. Contact Randy Roloff at (920) 209-9808.

Remove and properly dispose of all other material from the right-of-way. Remove and dispose of all material rejected by the county.

34. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of $200 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.
stp-632-005 (20070510)

35. Traffic Control.

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

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

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

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

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

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

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

Cover existing signs which conflict with traffic control as directed by the engineer. Conduct operations in such a manner that causes the least interference and inconvenience to the free flow of vehicles on the roadways. This includes the following:

a. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way without approval of the engineer.

b. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.

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

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

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

Supply a full road closure on each side of the railroad crossing from the time the railroad removes the railroad signals or railroad crossing surface material until the roadway is fully paved and the relocated railroad signal are operating. During the time of this closure, the contractor will not be allowed to cross the railroad without the permission and the supervision of the railroad flagman. Special care will be needed to properly protect the track and crossing surface if allowed to cross.

No hauling, deliveries, or removals to/from the outside shoulders of I-41, for work pertaining to this project will be permitted without a full lane closure or engineer approval.

During the period when lane closures are allowed on I-41, access into the work zones from I-41 can be made from the closed lane, subject to the approval of the engineer. Construction traffic from the work zone entering I-41 must run out of the closed lane. Once construction traffic is within a lane closure, all construction traffic re-entering I-41 must come to within 10 mph of posted speed before re-entering the live I-41 lane.

Clear Zone Working Restrictions

Do not store materials or equipment within the clear zone of traffic lanes. Remove materials from the clear zone prior to opening lane closures. Do not leave any slopes steeper than 3:1 or any drop offs at the edge of the traveled way greater than 2 inches within the clear zone.

Do not perform heavy equipment work within 18 feet of the edge of the traveled way unless protected by a lane closure during the allowed closure periods. Park equipment a minimum of 30-feet from the edge of the traveled way.

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

36. Temporary Pedestrian Surface Asphalt, Item 644.1410.S.

A Description

This special provision describes providing, maintaining, and removing temporary pedestrian surface.

B Materials

Furnish 1 1/4-inch dense graded aggregate conforming to standard spec 305.2. Furnish:

- Asphaltic surface conforming to standard spec 465.2.
- Pressure treated 2x4 framing lumber, pressure treated 3/4-inch plywood with skid resistant surface coating, and weather resistant deck screws 3-1/2-inch minimum for framing and 1-5/8-inch minimum for plywood.
- 1/4 inch minimum steel plate or commercially available prefabricated plates with skid resistant surface coating conforming to Americans with Disabilities Act Accessibility Guidelines. If placed in the roadway, must be able to handle a vehicle weight of 88,000 lbs.

C Construction

Place, compact, and level a dense graded aggregate foundation before placing the surface.

Provide a firm, stable, and slip-resistant surface layer with vertical joints no higher than 1/4 inch and horizontal joints no wider than 1/2 inch. Sheet materials up to 1 inch thick may be lapped if the edge is beveled at 45 degrees or flatter. Asphalt may also be used to ramp up to materials up to 1 inch thick. Construct conforming to the following:

- Asphalt surface a minimum of 2 inches thick compacted with compactors, tampers, or rollers.
- Framed plywood panels 4 feet wide with a skid resistant surface coating.
- Steel or prefabricated plate with a skid resistant surface coating.

Align parallel to the existing roadway grade or, if outside of a street or highway right-of-way, do not exceed 5 percent longitudinal slope. Provide cross slope of 1 to 2 percent unless the engineer approves a steeper cross slope in writing.

Maintain the surface with a 4-foot minimum clear width and the specified joint and slope requirements. Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 203.3.4 when no longer required.

D Measurement
The department will measure temporary pedestrian surface by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1410.S	Temporary Pedestrian Surface Asphalt	SF

Payment is full compensation for providing, maintaining, and removing temporary pedestrian surface.
stp-644-010 (20150630)

37. Temporary Curb Ramp, Item 644.1601.S.

A Description
This special provision describes providing, maintaining, and removing temporary curb ramps.

B Materials
Furnish materials as follows:

- Asphaltic surface conforming to standard spec 465.2.
- Engineer-approved ready mixed concrete or ancillary concrete conforming to standard spec 602.2 except no QMP is required.
- Commercially available prefabricated curb ramps conforming to Americans with Disabilities Act Accessibility Guidelines.

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

C Construction
Provide and maintain temporary curb ramps, including detectable warning fields, throughout the project duration. Place and compact a dense graded aggregate foundation before placing the curb ramp, unless the curb ramp is to be placed on existing roadway surface.

Remove and dispose temporary curb ramps and associated detectable warning fields when no longer required.

D Measurement
The department will measure temporary curb ramps by each individual ramp, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1601.S	Temporary Curb Ramp	EACH

Payment is full compensation for providing, maintaining, and removing temporary curb ramps.
stp-644-020 (20150630)

38. Temporary Pedestrian Safety Fence, Item 644.1616.S.

A Description
This special provision describes providing, maintaining, and removing the temporary pedestrian safety fence.

B Materials
Furnish notched metal "T" or "U" shaped fence posts weighing 1 1/3 pounds per foot or more.

Furnish select 2x4 dimensional lumber.

Furnish fence fabric meeting the following requirements.

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

The engineer may allow prefabricated fencing systems conforming to Americans with Disabilities Act Accessibility Guidelines.

C Construction
Provide a continuous safety fence with the top edge free of sharp or rough edges.

Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 204.3 when no longer required.

D Measurement
The department will measure Temporary Pedestrian Safety Fence by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1616.S	Temporary Pedestrian Safety Fence	LF

Payment is full compensation for providing, maintaining, and removing the temporary pedestrian safety fence.

stp-644-025 (20150630)

39. Traffic Signal Timing Parameters – STH 55 & STH 96.

Permanent traffic signal timing shall be used with the completed permanent traffic signals.

All work required to implement permanent traffic signal timing, perform test operations and make updates for all signalized intersections in this contract shall be considered incidental to the Traffic Signal Systems Integrator bid item.

PERMANENT TRAFFIC SIGNAL TIMING
STH 55 & STH 96

Main Street:	STH 55
Cross Street:	STH 96/CTH J
Location:	City of Kaukauna
Type:	Permanent Traffic Signal Timing
Date:	March 8, 2017

Phase Data (N)	Phase 1	2	4	6	8
Approach Name	STH 55 EBL/SBR	CTH J WBT	STH 55 SBT	STH 55 EBT	STH 96 NBT
Vehicle Basic Timings					
Minimum Green (sec.)	15.0	10.0	10.0	10.0	10.0
Max 1	25.0	45.0	25.0	25.0	25.0
Passage	5.0	2.0	1.5	2.0	1.5
Yellow Change (sec)	3.5	3.0	3.0	3.0	3.0
Red Clearance (sec)	1.0	3.4	3.0	3.4	3.0
Max Variable Initial	-	-	-	-	-
Sec/Actuation	-	-	-	-	-
Time Before Reduction	10.0	-	-	-	-
Time to Reduce	10.0	-	-	-	-
Minimum Gap	2.0	-	-	-	-
Pedestrian Timings					
Walk (sec)	-	7.0	7.0	7.0	7.0
Ped Clearance (sec)	-	20.0	16.0	20.0	16.0
Miscellaneous					
Vehicle Recall	MIN	NONE	NONE	NONE	NONE
Phase Locking	LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING	NON-LOCKING

40. Ramp Closure Gates Solar 24-FT, Item 662.2024.S; Ramp Closure Gates Solar 40-FT, Item 662.2040.S.

A Description

This special provision describes providing solar-powered 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 F3125. For the ramp closure gate locking mechanism, furnish a handle nut to fit on a 3/4-inch bolt.

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 solar power system and batteries conforming to the following:

1. Cabinet
   The cabinet shall be manufactured of 0.125-inch sheet aluminum. Nominal cabinet dimensions shall be 26.25 inches high by 15.5 inches wide by 14.75 inches deep. The cabinet shall be a two-compartment type; the bottom compartment shall have a neoprene gasket seal so as to prevent battery gases from seeping into the top compartment. The cabinet shall have wire screened insect proof louvers on each side of both compartments for ventilation. The louvers shall be designed to not allow any rain to enter the cabinet. On the bottom of the cabinet there shall be two screened insect proof drain holes.

   The door shall be a single unit with a continuous piano hinge riveted to the door and the cabinet. The door shall incorporate a neoprene gasket which, when closed, forms a snug weather tight seal. 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.

   Each cabinet shall be equipped with the necessary rigid back wall for mounting to a traffic signal standard. The cabinet shall have a 1-inch diameter cable entry hole at each mounting location on the back.

2. Control Panel
   The control panel containing the electronics shall be mounted in the top compartment of the cabinet using bolts with wing nuts. The solar panel and battery shall be connected directly to the solar charge controller terminals. All modular components shall be easily removed for replacement or maintenance.

   The solar panels, load, and battery shall be fused.

   Furnish the cabinet with a 10 position terminal block for the 12 VDC power distribution. Furnish 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.

3. Solar Charge Controller
   The solar charge controller shall control battery charging through pulse width, modulated, temperature compensating, constant charging algorithm. The solar charge controller shall have both a low voltage disconnect (LVD) of 11.4 VDC and a high voltage disconnect (HVD) of 15.5 VDC. A liquid crystal display (LCD) of battery voltage, solar array current, and load current shall be available with the solar charge controller. In addition, colored LEDs shall display battery state. A green LED shall indicate full charge, amber LED shall indicate half charge, and a flashing red LED shall indicate low charge. A solid glowing red LED shall indicate the load has been disconnected. A separate green LED shall indicate the battery is being charged.

   The solar charge controller shall have a load disconnect pushbutton. When the load is disconnected the button shall glow red.

   The solar charge controller shall be capable of operating in a temperature range of 40° C and +85° degrees C.

   Wire terminations to the solar charge controller shall be accomplished using Euro style terminations.

4. Solar Panel
   The solar panel shall be a 50-watt high efficiency, single crystal silicon solar cells that are laminated to glass with layers of ethylene vinyl acetate (EVA). The panel shall be self-cleaning, impact resistant, highly transmissive, tempered glass superstate. The panel module frame shall be made of extruded, polymer coated aluminum alloy or similar approved construction. The panel module junction box shall be a UV resistant, weatherproof wire termination system that handles #14 AWG to #8 AWG wiring. The minimum wattage for the system shall be determined by the supplier, with design calculations submitted with the bid.

5. Solar Panel Mount
   The solar panel mounting system shall consist entirely of non-corrosive materials, including aluminum brackets and zinc-plated hardware. The solar panel shall be mounted at angle of 60 degrees from horizontal, shall mount to a pole with a nominal diameter of 4-inches, and shall be designed for minimum of 30 pound per square foot.

6. Battery
   The battery shall be a 99-amp-hour type 31 AGM maintenance-free, deep cycle, 12 volt DC battery. It shall contain valve regulation with a self-discharge rate of 1% per month or less (at 20° C). The battery shall utilize T881 terminals. The positive terminal shall be covered with a rubber boot to protect the battery from accidental shorting. Place dielectric grease on battery terminals.

Furnish gate flasher assemblies conforming to the following:

1. A 2-conductor battery 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:

- From Solar Panel to Controller Cabinet
  - Positive = Blue
  - Negative = White
- From Controller Cabinet to Gate Arm Flashers
  - Common = White
  - Flasher Circuit #1 = Red
  - Flasher Circuit #2 = Blue

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 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 the solar power system and battery as the plans show. The engineer may direct adjustment of the solar power unit to ensure the correct orientation to the sun.

Connect the battery 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.

Zack Gruling, (715) 421-8319

C.2 Furnishing Gate Arms

Under the Ramp Closure Gate Arms Stockpile bid items, furnish and deliver spare arms of the nominal length the bid item indicates conforming to B.2. Deliver spare gate arms to an address provided by:

N/A

C.3 Furnishing Flashers

Under the Ramp Closure Gate Flasher Stockpile bid item, furnish and deliver spare gate flasher assemblies conforming to B.2. Deliver spare gate arms to an address provided by:

N/A

D Measurement

The department will measure the Ramp Closure Gates Solar bid items as each individual installation, acceptably completed.

The department will measure the Ramp Closure Gate Arms Stockpile bid items and Ramp Closure Gate Flashers Stockpile as each individual unit, acceptably furnished and delivered.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
662.2024.S	Ramp Closure Gates Solar 24-FT	EACH
662.2040.S	Ramp Closure Gates Solar 40-FT	EACH

Payment for the Ramp Closure Gate Solar bid items is full compensation for providing ramp closure gates including support poles; for gate arm assembliesincluding guides, collars, and gate arms;for cabinets, wiring, and power converters; for structure identification plaques; for gate flashers; and for padlock.

Payment for the Ramp Closure Gate Arms Stockpile is full compensation for furnishing and delivering spare ramp closure gate arms.

Payment for the Ramp Closure Gate Flashers Stockpile is full compensation for furnishing and delivering ramp spare closure gate flasher assemblies.
stp-662-010 (20140630)

41. Planting Mixture, Item SPV.0035.01.

A Description

This special provision describes furnishing and installing Planting Mixture at the locations shown on the plans and according to the requirements of standard spec 632, the plans, and as hereinafter provided.

B Materials

The landscape contractor who is responsible for furnishing and installing plant material is also be solely responsible for obtaining planting mixture components, blending the mixture to the specified proportions, and for furnishing and installing the planting mixture.

B.1 Planting Mixture

The planting mixture consists of the following blend by volume:

- 2 parts topsoil. Conform Topsoil to standard spec 625.
- 1 part sand. Obtain the engineer’s approval for the sand.
- 1 part compost. Provide compost that is either well-rotted shredded leaf mulch, free of disease; or well-rotted, unleached, stable or cattle manure containing no more than 25 percent by volume of straw, sawdust, or other bedding materials and free of toxic substances. Either that both are free of stones, sticks, soil, weed seeds, debris, and other material harmful to plant growth.
- 1 part peat moss. Conform peat moss to standard spec 632.

C Construction

C.1 Coordination

Deliver Planting Mixture to project site and installed no more than seven days before the start of planting operations for areas receiving Planting Mixture. Fully coordinate and schedule the delivery and installation of the Planting Mixture with the delivery and installation of all landscape plant materials.

C.2 Planting Mixture Preparation and Placement

Provide, in writing to the engineer, a list of all materials used in Planting Mixture including manufacturers or suppliers (source) and quantities to ensure that all materials meet the standards set forth in standard spec 625 and 632 and produce a planting mixture that provides a stable, healthy soil for plant growth.

Ensure proper excavation of planting area for all areas to receive Planting Mixture. Prepare areas by removing any construction materials, stone, or other debris larger than 2” in length or diameter for all areas. Remove all debris, slag piles and trash. Ensure that subgrades have been excavated to allow for a 18-inch depth placement of Planting Mixture. Till or disc subgrades to loosen and decompact. Obtain the engineer’s approval of subgrade preparation including depth excavated, removal of trash materials, and loosening of subgrades before placing any Planting Mixture.

Provide Planting Mixture for planting beds as indicated in the plans.

Provide Planting Mixture over entire planting bed area and fine grade to match grades as indicated on plans or to adjacent back of curb or other hardscape surface as indicated on plans and account for settling. Place Planting Mixture in 6-inch to 8-inch lifts, watering in or tamping to reduce settling potential. Provide a minimum of 18” depth in all planting beds as indicated in the plans.

Obtain approval of Planting Mixture depths, locations, and elevations by the engineer prior to planting.

D Measurement

The department will measure Planting Mixture 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.0035.01	Planting Mixture	CY

Payment is full compensation for furnishing and installing all materials.

42. Concrete Masonry Special, Item SPV.0035.02.

A Description
This special provision describes the concrete masonry construction of cast in place manhole/inlet structures according to the requirements pertaining to culverts in standard spec 504, manhole and inlets in standard spec 611, and QMP in standard spec 715 and as hereinafter provided.

B Materials
Provide steel reinforcement and concrete specified in the plans and details and standard spec 504.

Provide QMP as specified in standard spec 715.

Provide trench backfill as specified for manholes and inlets in standard spec 611.

C Construction
Construct manhole/inlet structures according to standard spec 504.

Excavate and backfill the manhole/inlet structures according to standard spec 611.

D Measurement
The department will measure Concrete Masonry Special by the cubic yard, acceptably completed. The department will not measure work or materials for excavation, backfill, forms, falsework, or cofferdams unless specified otherwise. The department will not measure pumping, bracing, or other incidentals necessary to complete the work.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.02	Concrete Masonry Special	CY

Payment is full compensation for furnishing all materials, forms, excavation, backfilling, falsework, placing, finishing, curing, protecting, and heating.

43. Internal Chimney Seal 1-Piece, Item SPV.0060.02; Internal Chimney Seal 2-Piece, Item SPV.0060.03.

A Description
This special provision describes furnishing and installing sanitary sewer internal chimney seals as shown in the plan details and as hereinafter provided.

B Materials
Furnish internal chimney seals and extensions manufactured by Cretex.

C Construction
Prior to installation of internal chimney seals, manholes shall be tuckpointed to a smooth flat surface to allow for proper installation of seals and bands. Allow City of Kaukauna Public Works personnel to inspect all tuckpointed manholes prior to installation of seals. Any seals installed prior to inspection shall be removed and replaced at the contractor's expense. All tuckpointed manholes not approved by the City of Kaukauna will be repaired at the contractor's expense. Contact John Neumeier, (920) 766-6505, to request inspection.

D Measurement
The department will measure Internal Chimney Seals, 1-Piece and 2-Piece by each unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Internal Chimney Seal 1-Piece	EACH
SPV.0060.03	Internal Chimney Seal 2-Piece	EACH

Payment is full compensation for furnishing and installing internal chimney seals.

44. Sanitary Manhole Cover, Type J-Special, Item SPV.0060.04.

A Description
This special provision describes furnishing and installing sanitary manhole covers.

B Materials
All sanitary sewer manhole castings shall be Neenah R-1710 with machine bearing surfaces "B" lid, concealed pick holes, and a self-sealed gasket.

C Construction
Construct according to requirements of standard spec 611.3, the "Manhole, Inlet, and Catch Basin Adjusting Rings" special provision article, and as follows:

Provide the least number of rings possible to set manhole cover to proposed grade.

All wood adjustment wedges shall be removed from manhole to prevent damage to downstream sanitary lift stations.

D Measurement
The department will measure Sanitary Manhole Cover, Type J-Special, as each individual manhole frame and cover, 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.0060.04	Sanitary Manhole Cover, Type J-Special	EACH

Payment is full compensation for providing all labor and materials, including adjustment rings, frame and cover; for properly installing said frame and cover on each sanitary manhole including any related cleanup or related
work.

45. Standard Sanitary Pipe Connection, Item SPV.0060.05; Sanitary Wye 8-Inch Main, Item SPV.0060.06.

A Description

This special provision describes Furnishing and installing sanitary sewer mainline pipe connections to existing pipes and sanitary sewer mainline wye fittings for lateral connections.

B Materials

B.1 Pipe Connection Fittings

Provide elastomeric seals (rubber gaskets) conforming to ASTM F477 (Mission, Clow, Fernco, coupling or equal) in accordance the most recent edition of the Standard Specifications for Sewer & Water Construction in Wisconsin.

B.2 Wye Fittings

Sanitary sewer pipe and fittings shall be Type PSM SDR-35 and meet the requirements of ASTM D3034.

B.3 Shop Drawings

Prior to incorporating any materials or products into the work, submit to the engineer product literature and catalog cuts of the materials to be supplied. Submit information in sufficient detail to readily determine if these materials are in conformance with the specifications.

C Construction

C.1 Connections to Existing Pipes

Reconnect all existing live sanitary sewer mainline pipes to the relayed sanitary sewer mains. Verify inverts of existing pipe at connection to relayed pipe prior to ordering sanitary manhole structures.

When connecting to a similar sized (inside diameter) PVC sewer use a gasketed PVC repair coupling. When connecting sewers with different inside diameters, use a gasketed eccentric reducer. When connecting to an existing similarly sized concrete, vitrified clay, or other non-PVC and unlined sewer pipe use an appropriately sized flexible plumbing adaptor.

C.2 Sanitary Tee and Wye Fittings

Install factory wye fittings in the new sanitary sewer mainline pipe to accommodate all existing active sanitary sewer building laterals. Approximate locations of existing laterals are shown on the contract drawings. Verify that existing sanitary lateral pipes are active by dye

testing or other approved methods before installing a new wye fitting in the mainline pipe. The cost of this verification is considered incidental to the sanitary sewer construction.

The pipe size of the various existing sanitary building laterals is unknown at this time. The bid item for sanitary wye includes a differentiation for mainline pipe size only. The contractor shall have a sufficient amount of both 4" and 6" nominal diameter branch wye fittings on hand to make equivalent size replacements. The wye fittings will be paid according to the mainline size with no differentiation for either a 4" or 6" nominal diameter branch size.

D Measurement
The department will measure Standard Sanitary Pipe Connection and Sanitary Wye 8-Inch Main, by each individual connection or fitting, approved by the City of Kaukauna, and acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Standard Sanitary Pipe Connection	EACH
SPV.0060.06	Sanitary Wye 8-Inch Main	EACH

Payment is full compensation for providing all labor and materials, including flexible couplings and bands, wye fittings, and other required connection fittings; for furnishing all excavating, except rock excavation; for sealing joints and making connections to new or existing pipe or fixtures; for backfilling and compacting; for providing bedding material; for cleaning out pipes and restoring the worksite.

46. Adjusting Sanitary Manholes, Item SPV.0060.08.

A Description
This special provision describes adjusting sanitary manhole covers.

B Materials
Provide materials according to the requirements of standard spec 204.2.

C Construction
Construct according to requirements of standard spec 611.3, the "Manhole, Inlet, and Catch Basin Adjusting Rings" special provision article, and as follows:

Remove and dispose of existing adjustment rings and existing seal.

Provide the least number of rings possible to set manhole cover to proposed grade.

All wood adjustment wedges shall be removed from manhole to prevent damage to downstream sanitary lift stations.

D Measurement
The department will measure Adjusting Sanitary Manholes as each individual unit acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Adjusting Sanitary Manholes	EACH

Payment is full compensation for providing all required materials, exclusive of frames, grates, or lids; for removing, reinstalling and adjusting the covers; and for removing and disposing of existing adjustment rings and seals. The contractor shall replace covers rendered unusable by the contractor's operations, at no expense to the department.

47. Adjusting Water Valve Box, Item SPV.0060.07.

A Description
Adjust water valve boxes to final pavement elevations, as shown in the plans and as hereinafter provided.

B Materials
Utilize existing valve boxes where the required extent of adjustment allows. If additional sections are necessary, coordinate with Kaukauna Utilities and contact Kevin Obiala, (920) 463-0233 to obtain required materials.

C Construction
Prior to completion of paving operations, adjust the water valve boxes to match the final proposed grade. Excavate and expose the existing water main valve box to the depth needed to adjust the valve box to grade, add or remove extension(s) as needed, and backfill with base aggregate material in accordance to the requirements for the adjacent roadway base course construction.

Complete adjustments in such a manner to avoid any damage to the water valve boxes. Provide Kaukauna Utilities two working days' advance notice prior to adjusting the valve boxes to finished grade.

D Measurement
The department will measure Adjusting Water Valve Box as a unit of work for each valve box, acceptably adjusted in accordance to the contract.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Adjusting Water Valve Box	EACH

Payment is full compensation for adjusting each valve box; excavating as necessary to access the valve box; backfilling; repairing any damage done to the valve box during adjustment; and for adding new sections if necessary.
(NER12-0206)

48. Reconstructing Sanitary Manholes, Item SPV.0060.09.

A Description
This special provision describes reconstructing sanitary manholes.

B Materials
Provide materials according to the requirements of standard spec 204.2.

C Construction
Construct according to requirements of standard spec 611.3, the "Manhole, Inlet, and Catch Basin Adjusting Rings" special provision article, and as follows:

Remove and dispose of existing adjustment rings and existing seal.

Provide the least number of rings possible to set manhole cover to proposed grade.

All wood adjustment wedges shall be removed from manhole to prevent damage to downstream sanitary lift stations.

D Measurement
The department will measure Reconstructing Sanitary Manholes as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Reconstructing Sanitary Manholes	EACH

Payment is full compensation for providing required materials, including masonry and fittings; for removing and disposing of existing adjustment rings and seals; for salvaging and reinstalling existing covers, including frames and lids; for necessary excavation, backfilling, disposing of surplus material, and for cleaning out and restoring the work site. The contractor shall replace covers rendered unusable by the contractor's operations, at no expense to the department.

49. Pull Box Non-Conductive 24x48-Inch, Item SPV.0060.12.

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 (size) as the plan details show using the same material as the pull box. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under standard spec 205.3.12.

Use covers stamped with "SIGNALS" for traffic signal pull boxes or "LIGHTING" for lighting pull boxes.

D Measurement
The department will measure Pull Box Non-Conductive (size) as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Pull Box Non-Conductive 24x48-Inch	EACH

Payment for Pull Bon Non-Conductive (size) is full compensation for providing and installing pull boxes, frames, lids, aggregate, fasteners, reinforcing steel; conduit extensions less than 10 feet long including fittings; and for furnishing all excavating, backfilling and disposing of surplus material.

50. LED Blank Out Sign No Left Turn, Item SPV.0060.13; LED Blank Out Sign No Right Turn, Item SPV.0060.14.

A Description
This special provision describes furnishing and installing materials for 30-inch by 30-inch LED blank out signs.

B Materials
B.1 General
Furnish 30-inch by 30-inch LED Blank Out signs based on direction shown in plans. The sign housing shall be constructed using aluminum. The sign shall be suitable for outdoor applications. Mounting hardware for each blank out sign shall be furnished by the contractor and is considered incidental to item 658.5069.01 Traffic Signal Mounting Hardware (STH 55 and STH 96).

Provide all other needed materials in conformance with standard spec 658.2 and all other applicable terms of this contract.

B.1 Housing
Housing shall be constructed of aluminum with welded seams. The housing shall be NEMA 4X rated. The housing shall have a uniform black finish either powder coated or anodized. A hood shall be attached to the housing to minimize glare on the sign face. The housing shall have stainless steel latches that do not require tools to operate.

B.3 Electrical
The unit shall be compatible with 120 volt input voltage. The LED sign shall be capable of automatic dimming capable of adjusting to the ambient light level.

C Construction
Perform work according to standard spec 658.3 and all applicable terms of this contract.

D Measurement
The department will measure LED Blank Out Sign No Left Turn or LED Blank Out Sign No Right Turn as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.13	LED Blank Out Sign No Left Turn	EACH
SPV.0060.14	LED Blank Out Sign No Right Turn	EACH

Payment is full compensation for furnishing and installing each LED sign for the appropriate direction as called out in the plans.

51. Daylilles Stella d'Oro, Item SPV.0060.15; Karl Foerster, Item SPV.0060.16; Purple Dome Asters, Item SPV.0060.17.

A Description
This special provision describes furnishing and planting perennials and grasses according to standard spec 632, the plans, and as hereinafter provided.

B Materials
Provide materials as specified in the plans and as specified in standard spec 632.2 with the following modifications.

C Construction
Obtain, transport, store, and plant the plants according to the requirements of standard spec 632.3.

D Measurement
The department will measure perennials and grasses by each plant, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.15	Daylillies Stella d'Oro	EACH
SPV.0060.16	Karl Foerster	EACH
SPV.0060.17	Purple Dome Asters	EACH

Payment is full compensation for providing, transporting, handling, storing, pruning, placing, and replacing plant materials; for excavating all plant holes, salvaging topsoil, mixing, and backfilling; for providing and applying all required fertilizer, weed barrier fabric, mulch, water, wrapping, guys and braces, rodent protection, herbicides and anti-desiccant spray; for removing guys and braces, and for disposing of all excess and waste materials.

52. Baseline CPM Progress Schedule, Item SPV.0060.18; CPM Progress Schedule and Accepted Revisions, Item SPV.0060.19.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule
108.4.1 Definitions
The department defines terms used in standard spec 108.4 as follows:

Activity
An administrative or construction task performed during the course of the project with a defined duration, and scheduled (or actual) start and finish dates.

Critical Path
The longest continuous chain of activities through the CPM schedule that establishes the minimum overall project duration.

Construction Activity
Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

CPM Progress Schedule
A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

Float
Float, as used herein, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

Forecast Completion Date
The completion date predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date, depending on progress.

Fragnet
A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order.

Initial Work Plan
The initial work plan is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

Intermediate Milestone Date
A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.

Master Project Schedule
The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

Work Breakdown Structure (WBS)
A framework for organizing the activities that make up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

108.4.2 Department's Master Schedules

108.4.2.1 Master Project Schedule

The department will supply its Master Project Schedule for the contract work, developed during design. The Master Project Schedule is not a direction on how to perform the work. The Master Project Schedule reflects one possible approach to the work, consistent with the phasing requirements.

108.4.2.2 Use of Department's Master Schedules

The department's Master Schedules provide information to assist the contractor in preparing its schedule. The Master Schedules are not contract documents. The logic contained in the Master Schedules is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements.

108.4.3 Contractor's Scheduling Responsibilities

Prepare and submit a CPM progress schedule that accurately reflects the plan for the performance of the work, based on the physical requirements of the Work, and Traffic Phasing requirements. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines. The contractor assumes full responsibility for the prosecution of the work as shown. The CPM schedule is not part of the contract. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Use the latest version of Primavera Project Planner (P6), by Primavera Systems, Inc., Bala Cynwyd, PA to prepare the Initial Work Plan, Baseline CPM Progress Schedule, and Monthly CPM Updates.

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for approval a professional resume describing a minimum of three years of scheduling experience on urban, interstate-highway reconstruction work of similar size and complexity, including recent experience with P6.

108.4.4 Submittals

108.4.4.1 Initial Work Plan

Within ten business days after the Initial Work Plan Workshop, as scheduled in section 103.10 as defined in article 4.1 Contract Award and Execution, submit an Initial Work Plan consisting of the following:

1. Develop the Initial Work Plan using the Master Project Schedule as a template.
2. Provide a detailed plan of activities to be performed within the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
3. Provide activities as necessary to depict administrative work, including submittals, reviews, and procurements that will occur within the first 90 calendar days of the contract. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
4. Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
5. Submit three copies of the Initial Work Plan in a compressed (PRX) format on three separate CDs.
6. The engineer will accept the contractor's Initial Work Plan or provide comments within five business days after receipt of the Initial Work Plan. Address comments and resubmit the Initial Work Plan as necessary. Do not begin work until the engineer accepts the Initial Work Plan. The department will use the initial work plan to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.

7. Submit an updated version of the Initial Work Plan on a monthly basis until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

108.4.4.2 Baseline CPM Progress Schedule

Within 15 business days after the CPM Scheduling Workshop, as scheduled in standard spec 103.10 as defined in article 4.1 Contract Award and Execution, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM using the Master Program Schedule as a template. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and Intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:
    - 1.1 Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
    - 1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
    - 1.3 Provide activities as necessary to depict third party work related to the contract.
    - 1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and weather; and reflect involvement and reviews by the department, and coordination with adjacent contractors, utility owners, and other third parties.
    - 1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag unless the engineer accepts requested exceptions.
    - 1.6 Schedule all intermediate milestones in the proper sequence and input as either a "Start-no-Earlier-Than" or "Finish-no-Later-Than" date. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule should encompass all the time in the contract period between the starting date and the specified completion date.
    - 1.7 Using the bid quantities and unit prices, develop an anticipated cash-flow curve for the project, based on the Baseline CPM.

2. Provide three hard copies of a hand-drawn or electronically drafted logic diagram depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

3. Provide a written narrative with the baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:
    - 3.1 The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.
    - 3.2 Use of constraints.
    - 3.3 Use of calendars.
    - 3.4 Estimated number of adverse weather days on a monthly-basis.
    - 3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

4. Submit three copies of the Baseline CPM in a compressed (PRX) format on three separate CDs.

Within ten business days of receiving the Baseline CPM, the engineer will provide comments and schedule a meeting for the contractor to present its Baseline CPM and answer questions raised in the engineer’s review.

At the meeting scheduled by the engineer, provide a presentation of the Baseline CPM. In the presentation, include a discussion of the staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the Work. Address comments raised in the engineer’s review.

Within five business days after the meeting, the engineer will accept the contractor's Baseline CPM schedule or provide comments. Address the engineer’s comments and resubmit a revised Baseline CPM within ten business days after the engineer's request. If the engineer requests justification for activity durations, provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

The engineer accepts the Baseline CPM based solely on whether the schedule is complete as specified in this section. The engineer’s acceptance of the schedule does not modify the contract.

The department will not consider requests for contract time extensions as specified in standard spec 108.10 or additional compensation for delay specified in standard spec 109.4.7 until the department accepts the Baseline CPM schedule.

108.4.4.3 Monthly CPM Updates

Submit CPM Updates on a monthly basis after acceptance of the Baseline CPM. With each CPM Update, include the following:

1. Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities.
2. Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of delay, potential problems, work planned for the next 30 calendar days, and changes to the CPM schedule. Changes to the logic of the CPM schedule include the addition or deletion of activities and changes to activity descriptions, original durations, relationships, constraints, calendars, or previously recorded actual dates. Justify changes to the CPM schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
4. Submit three copies of each CPM Update in a compressed (PRX) format electronically, as agreed to with the department.
5. If additions or changes were made to the CPM schedule since the previous update, submit an updated hard copy of the revised logic diagram.
6. Within five business days of receiving each CPM Update, the engineer will provide comments and schedule a meeting as necessary to address comments raised in the engineer's review. Address the engineer's comments and resubmit a revised CPM Update within five business days after the engineer's request.

108.4.4.4 Three-Week Look-Ahead Schedules

Submit Three-Week Look-Ahead Schedules on a weekly basis after notice to proceed (NTP). The schedule can be hand drawn or generated by computer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Planned work for the upcoming two-week period.
3. The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.
4. On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look-Ahead schedules for the month when updating the CPM schedule.

108.4.4.5 Weekly Production Data

Provide estimated and actual weekly production rates for items of work on a weekly basis as follows:

1. Provide data on the following items by area or station:
   1.1 Retaining Walls—SF per week
      a. MSE Walls
   1.2 Bridge Construction
      a. Foundation Pile—Each per week
      b. Foundation/Substructure Concrete—CY per week
      c. Structural Steel Girders—Each per week
      d. Prestressed Concrete Girders—Each per week
      e. Deck Formwork—SF per week
   1.3 Roadway Excavation—CY per week
   1.4 Roadway Structural Section
      a. Grading/Subgrade Preparation—SY per week
      b. Base Material Placement—Ton per week
      c. Base Material Subgrade Preparation—SY per week
      d. Asphalt Pavement—Ton per week
      e. Concrete Pavement – SY per week
2. For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week.
3. Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

108.4.5 Progress Review Meetings

Weekly Progress Review Meetings—After completing the weekly submittal of the Three-Week Look-Ahead and production data, attend a weekly meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

Monthly Update Review Meetings—After submitting the monthly update and receiving the engineer's comments, attend a job-site meeting, as scheduled by the engineer, to review the progress of the schedule. At that meeting, address comments as necessary, and document agreement or disagreement with the department. The monthly meeting will be coordinated to take place on the same day and immediately before or after a weekly meeting, whenever possible.

108.4.6 CPM Progress Schedule Revisions

Revision by the contractor—If necessary due to changes in the Work or project conditions and authorized by the engineer, the contractor may submit a CPM Progress Schedule Revision, although the next CPM Update is not yet due. Prepare the CPM Revision in the same format as required for CPM Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

Engineer’s Right to Request Revisions—The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for CPM Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
2. An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
3. The engineer determines that the progress of the work differs significantly from the current schedule.
4. A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

108.4.7 Documentation Required for Time Extension Requests

To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or deleted and the other activities affected, based on the latest accepted CPM Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Update. Requests for time extensions due to delays should meet the following criteria:

1. For requests to extend the contract completion date, include a description of how the delay affected the project’s critical path, based on the latest accepted CPM Update.
2. For requests to extend an intermediate milestone date, include a description of how the delay affected the controlling (longest) path to the milestone, based on the latest accepted CPM Update.
3. The department and the contractor agree that float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

108.4.8 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.18	Baseline CPM Progress Schedule	EACH
SPV.0060.19	CPM Progress Schedule and Accepted Revisions	EACH

The department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the contractor has submitted the Baseline CPM schedule. The department will retain ten percent of each estimate until the department accepts the Baseline CPM schedule.

Payment is full compensation for furnishing all work required under these bid items including the three week look ahead. The department will pay the contract unit price for the Baseline CPM schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.
(NER11-0202)

53. Inlet 2 x 2.5-FT Special, Item SPV.0060.20.

A Description
Construct as shown on the plans, or as directed by the engineer, and in accordance to standard spec 611 and as hereinafter provided.

B Materials
Materials shall be in accordance to standard spec 611.2. The rubber adjustment riser is to be on the department's approved product list.

C Construction
Construction shall be in accordance to the plans and with standard spec 611.3.

Replace standard spec 611.3.3(1) with the following:

Set inlet cover on rubber adjustment riser ring. Use approved mastic adhesive between the ring and the inlet structure. Use an approved polyurethane adhesive with a flexible set between the ring and the inlet cover. Use two 5/16-inch beads of adhesive placed 1 inch and 2 inches in from the outside edge of the ring. If multiple adjustment rings are necessary, a maximum of two adjustment rings can be used. A maximum of 3 inch adjustment is allowed. Use polyurethane adhesive with a flexible set to join the two rings. If the adjustment rings must be cut, the joints must be staggered and a polyurethane adhesive used to reattach the cut ends. No concrete adjustment rings or mortar is to be placed between the top of the structure and the inlet cover.

D Measurement
The department will measure Inlet 2 x 2.5-FT Special as each individual inlet, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.20	Inlet 2 x 2.5-FT Special	EACH

Payment shall be in accordance to standard spec 611.5.
(NER11-0127)

54. Cover Plates Temporary, Item SPV.0060.21.

A Description
This special provision describes furnishing, installing and removing a steel plate to cover and support traffic loading over manholes and inlets for access during phased paving sequence on Maloney Road.

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

C (Vacant)

D Measurement
The department will measure Cover Plates Temporary as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.21	Cover Plates Temporary	EACH

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

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

55. Street Sweeping, Item SPV.0075.01.

A Description
This special provision describes removal of small dirt and dust particles from the roadway using a street sweeper periodically during the project as directed by the engineer.

B (Vacant)

C Construction
Provide a self-contained mechanical or air conveyance street sweeper and dispose of the material collected.

D Measurement
The department will measure Street Sweeping by the hour that the street sweeper is on the project picking up and removing debris from the roadway, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.01	Street Sweeping	HRS

(NER11-0602)

56. Bar Steel Reinforcement HS Special, Item SPV.0085.01.

Description.
This special provision describes the furnishing and placing of the bar steel reinforcement for the manhole/inlet structures according to the requirements pertaining to culverts in standard spec 505 and as hereinafter provided.

Materials.
Provide materials as specified in the plans and details and standard spec 505.

Construction.
Construct the bar steel as specified in the plans and details and according to standard spec 505.

Measurement.
The department will measure Bar Steel Reinforcement Special by the pound, acceptably completed according to the requirements in standard spec 505.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.01	Bar Steel Reinforcement HS Special	LB

Payment is full compensation for providing, transporting, and placing all reinforcement including supports. Where the plan specifies bar couplers, the department will pay for the length of the bars as detailed with no deduction or increase for the installation of the coupler. Payment is also full compensation for coating, including epoxy coated metal chair supports.

57. Fence Chain Link Polymer Coated 4-Ft, Item SPV.0090.01.

A Description
This special provision describes furnishing and installing a new polymer-coated fence system on structures according to the pertinent plan details, as directed by the engineer and as hereinafter provided. The color of all components in this fence system shall be the same and shall be as specified on the plans.

B Materials

All materials for this fence system shall be new stock, free from defects impairing strength, durability, and appearance. Fabric shall be produced by methods recognized as good commercial practice. Wire used in the manufacture of the fabric shall be capable of being woven into fabric without the polymer-coating cracking or peeling. Pipes used in framework shall be straight, true to section and free of defects. All burrs at the ends of pipes shall be removed before galvanizing. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

B.1 Fabric

Provide steel chain link fence fabric that conforms to the requirements of ASTM F668, Class 2b, a polymer-coating fused and adhered to wire that is zinc-coated. Provide fabric woven from 9-gage wire using plan specified mesh size, diamond pattern, with both the top and bottom selvages knuckled. The minimum breaking strength of the wire shall be 1290 lbs. The color of polymer-coating shall conform to the requirements of ASTM F934.

B.2 Framework

Provide steel rails, posts and post sleeves conforming to the requirements of ASTM F1083, Standard Weight Pipe (Schedule 40) of the size (O.D.) and weight as shown on the plans. The minimum yield strength shall be 30,000 psi and the minimum tensile strength shall be 48,000 psi. These components shall be zinc-coated inside and outside by the hot-dip process as stated in ASTM F1083. Provide polymer-coating over zinc-coating that conforms to ASTM F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components. Weld base plate to posts or post sleeves and complete any additional welding of components before galvanizing.

B.3 Fittings

Provide end post caps, line post caps, top rail sleeves, rail ends, line rail clamps, brace bands, tension bands, tension bars, and tie wires that are steel and conform to the requirements of ASTM F626. Tie wires shall be round and 9-gage wire. These components (excluding tie wires) shall be zinc-coated by the hot-dip process as stated in ASTM F626. Provide polymer-coating over zinc-coating on components (excluding tie wires) that conforms to the requirements of ASTM F626. For tie wires, provide polymer-coating on wire that is zinc coated using the same procedure as used for the wires in the fence fabric. End post caps and line post caps shall fit tightly over posts to prevent moisture intrusion. Supply dome style caps for end posts and loop type caps for line posts. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

B.4 Bolts

All bolts are to be supplied with lock washers and nuts. Use galvanized steel bolts, nuts and washers per plan details.

B.5 Tests

B5.1 Fabric and Tie Wire

Breaking Strength:	ASTM A370
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F668
Adhesion:	ASTM F668
Accelerated Aging Test:	ASTM F668, D1499
Mandrel Bend Test:	ASTM F668

B5.2 Framework

Tensile and Yield Strength:	ASTM E8
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM E376
Adhesion:	ASTM F1043
Accelerated Aging Test:	ASTM F1043, D1499

B5.3 Fittings

Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F626
Adhesion:	ASTM F1043 (same test as for framework)
Accelerated Aging Test:	ASTM F1043, D1499 (same test as for framework)

B.6 Submittals

In addition to the engineer, send submittals listed in this section to the name below for informational purposes:

David Nelson
WisDOT (Bureau of Structures)
4802 Sheboygan Avenue (Room 601)
PO Box 7916
Madison, WI 53707

B.6.1 Shop Drawings

Submit shop drawings showing the details of fence construction. Show the fence height, post spacing, rail location, and all dimensions necessary for the construction of the chain link fence. Label the end posts, line posts, rails, post sleeves, top rail sleeves, bolts and fittings. State the polymer-coating type used on the fabric, framework and fittings and the Class of coating used on the fabric. State the color of polymer-coating to be used on the fence components. For the fabric, state the wire gage, mesh size, and type of selvages used. For the framework, state the size (O.D.) and unit weight for the posts and rails. For the fittings, state the size for top rail sleeves, brace bands, tension bands, tension bars, line rail

clamps, size and type of bolts, and the tie wire gage. State the material type used for fabric, framework, and fittings. Also give the breaking strength for the fabric wire and the tensile and yield strength properties for the framework.

B.6.2 Specification Compliance
Submit certification of compliance with material specifications. Provide material certification and test documentation for fabric, framework, fittings and hardware that shows that all materials meet or exceed the specifications of this contract and the tests in B5. This document shall provide the name, address and phone number of the manufacturer, and the name of a contact person.

C Construction
C.1 Delivery, Storage and Handling
Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

C.2 Touch-up and Repair
For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

C.3 General
Install the chain link fence according to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20-feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near ¼ point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

D Measurement
The department will measure Fence Chain Link Polymer-Coated 4-Ft. by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Fence Chain Link Polymer Coated 4-Ft	LF

Payment is full compensation for fabricating, galvanizing and polymer-coating all fence components, and transporting to jobsite; for erecting components to create a polymer-coated fence system, including any touch-up and repairs.

58. Concrete Curb and Gutter Integral 18-Inch Type D Modified, Item SPV.0090.02; Concrete Curb and Gutter Integral SHES 18-Inch Type D Modified, Item SPV.0090.03; Concrete Curb and Gutter HES 18-Inch Type A Modified, Item SPV.0090.04; Concrete Curb and Gutter 30-Inch Type A Modified, Item SPV.0090.05; Concrete Curb and Gutter HES 30-Inch Type A Modified, Item SPV.0090.06; Concrete Curb and Gutter HES 30-Inch Type A, Item SPV.0090.07; Concrete Curb and Gutter SHES 4-Inch Sloped 36-Inch Type R, Item SPV.0090.08.

A Description

This special provision describes constructing curb and gutter and modified curb and gutter as shown in the plan details using normal, high early strength, and special high early strength concrete at the locations shown on the plans, or as directed by the engineer.

B Materials

For non-HES/SHES items, furnish materials for the work conforming to standard spec 601.2.

For HES items, furnish materials for the work conforming to standard spec 501.3.2.2 Concrete Grade C and the pertinent requirements of standard spec 601.2.

For SHES items, furnish materials for the work conforming to standard spec 416.2.1, 416.2.5, and the pertinent requirements of standard spec 601.2.

C Construction

Construct according to the requirements of standard spec 601.3 and standard detail drawings except as follows: Construct all modified curb and gutter and integral curb and gutter with a minimum thickness of 8 inches.

D Measurement

The department will measure Concrete Curb and Gutter 18-Inch Type D Modified, Concrete Curb and Gutter SHES 18-Inch Type D Modified, Concrete Curb and Gutter HES 18-Inch Type A Modified, Concrete Curb and Gutter 30-Inch Type A Modified, Concrete Curb and Gutter HES 30-Inch Type A Modified, Concrete Curb and Gutter HES 30-Inch Type A,

Concrete Curb and Gutter SHES 4-Inch Sloped 36-Inch Type R, according to standard spec 601.4

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Concrete Curb and Gutter Integral 18-Inch Type D Modified	LF
SPV.0090.03	Concrete Curb and Gutter Integral SHES 18-Inch Type D Modified	LF
SPV.0090.04	Concrete Curb and Gutter HES 18-Inch Type A Modified	LF
SPV.0090.05	Concrete Curb and Gutter 30-Inch Type A Modified	LF
SPV.0090.06	Concrete Curb and Gutter HES 30-Inch Type A Modified	LF
SPV.0090.07	Concrete Curb and Gutter HES 30-Inch Type A	LF
SPV.0090.08	Concrete Curb and Gutter SHES 4-Inch Sloped 36-Inch Type R	LF

Payment is full compensation according to standard spec 601.5.

59. Steel Casing Pipe 42-Inch, Item SPV.0090.10.

A Description

This special provision describes furnishing and installing a Steel Casing Pipe 42-Inch under the Wisconsin Central Ltd. railroad tracks, which cross STH 55 (Lawe Street). Complete this work in accordance with the pertinent subsections of standard spec 520, as shown in the plans, and as hereinafter provided; or as directed by the engineer.

B Materials

B.1. Smooth Steel Casing Pipe

Furnish pipe made of steel that has a plain end, a minimum thickness of 0.625", minimum yield strength of 35,000 psi, and conforms to ASTM A106 Grade B. Furnish pipe that has welded joints, is in at least 18 ft long sections (except for the last section, if a shorter length is needed to obtain the total length.)

B.2 Spacers or Skids

Furnish spacers or skids to provide a sliding surface between the casing pipe and the carrier pipe.

B.3 Foundation and Trench Backfill

Furnish foundation and trench backfill material in accordance with the requirements of Item SPV.0195.02 Backfill Railroad Special in these special provisions.

B.4. Flowable Fill
Provide a highly flowable mix containing enough cementations material, fine aggregate and water to produce a design mix with a minimum 28-day compressive strength of 500 psi. While the mix is to be a flowable mix, the water content is to be minimized through the use of admixtures to reduce shrinkage. Submit a copy of the mix design and strength test reports to the Engineer for approval prior to use.

C Construction
C.1 General
Supplement standard spec 520.3 with the following:

Install Smooth Steel Casing Pipe 42-Inch without bends and butt-weld all joints between pipe lengths with a smooth non-obstructing joint inside as shown in the plans, and as hereinafter provided; or as directed by the engineer.

Install spacers or skids around carrier pipe and install carrier pipe in steel casing pipe in accordance with manufacturer's recommendations.

Once carrier pipe is installed, fill annular space between carrier pipe and casing pipe with flowable fill. Maintain line and grade of carrier pipe and prevent flotation of carrier pipe during placement of flowable fill. Following placement of flowable fill, seal ends of casing with non-shrink grout.

When performing work in the area of the railroad track, comply with the requirements of subsection 107.17 of the standard specifications and as modified in Article 7 of these special provisions and as directed by the engineer.

C.2. Foundation and Trench Backfill
Install foundation and trench backfill material in accordance with the requirements of Item SPV.0195.02 Backfill Railroad Special in these special provisions.

D Measurement
The department will measure Smooth Steel Casing Pipe 42-Inch by the linear foot, acceptably completed, measured along the centerline of the pipe from end of pipe to end of pipe.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.10	Steel Casing Pipe 42-Inch	LF

Payment for Smooth Steel Casing Pipe, 42-Inch is full compensation for furnishing and installing steel pipe including: performing all excavation, furnishing and installing spacers or skids, flowable fill, non-shrink grout, pumping, butt-welding, and providing railroad insurance.

The department will pay separately for the storm sewer pipe and foundation/trench backfill material.

60. Removing Sanitary Sewer, Item SPV.0090.11.

A Description
The special provision describes the removal of the existing sanitary sewer as shown in the plans and hereinafter provided.

B (Vacant)

C Construction

Construct according to the requirements of standard spec 204.3

D Measurement
The department will measure Removing Sanitary Sewer by the linear foot, acceptably completed, measured from the center of structure to the center of structure.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.11	Removing Sanitary Sewer	LF

Payment is full compensation according to standard spec 204.5.

61. 8-Inch Sanitary PVC Pipe, Item SPV.0090.12; Sanitary Lateral 4 or 6 Inch, Item SPV.0090.13.

A Description
This special provision describes furnishing and installing sanitary sewer mainline and laterals as shown in the plans, according to the most recent edition of the Standard Specifications for Sewer & Water Construction in Wisconsin, and as hereinafter provided.

B Materials
B.1 Pipe
Sanitary Sewer pipe shall be limited to the following or City of Kaukauna approved equal:

- 4” and 6” PVC pipe meeting ASTM D-3034 Schedule 40 or ASTM F-714 (HDPE DR-17)
- 8”-15” PVC pipe meeting ASTM D-3034, Schedule 35

Pipe shall be of the bell and spigot type. Pipe joints shall be elastomeric seals (rubber gaskets) conforming to ASTM F477 and joint assembly that conforms to ASTM D3212.

B.3 Shop Drawings
Prior to incorporating any materials or products into the work, submit to the engineer product literature and catalog cuts of the materials to be supplied. Submit information in sufficient detail to readily determine if these materials are in conformance with the specifications.

C Construction
C.1 Embedment and Backfill
The bedding, haunching and backfill shall meet the requirements of the most recent edition of the Standard Specifications for Sewer & Water Construction in Wisconsin. All trenches shall be compacted to 95% compaction by mechanical methods according to "Standard Specifications for Sewer and Water Construction in Wisconsin" Section 2.6.14 (b). Flushing shall not be used to consolidate trenches. Contractor shall provide the necessary Proctor Tests of the sub-base material. Cost of testing shall be considered incidental to this project. City will require field tests in trenches.

C.2 Sanitary Sewer Mainline Testing
Perform grade, alignment and deflection or deformation testing along with closed circuit television inspection. This shall include a television inspection and report of the new sewer main installed. Perform this testing, inspection and reporting before paving of the roadway. Submit the television inspection in digital format. Submit the television report in digital (PDF) and hard copy format.

All polyvinyl chloride pipe installations shall be tested for deflection by using a mandrel and shall be performed according to ASTM D2321 and without the use of mechanical pulling devices. Deflection may not exceed 5 percent if tested within 30 days of placement of final backfill or 7.5 percent if tested more than 30 days after final backfill is placed. Final backfill must be in place prior to testing. A City of Kaukauna engineering representative shall be present during testing.

Sewer pipe will be inspected for alignment by the use of mirrors, flashlights or lamps. Sewer lines shall permit a through view of at least half the pipe diameter between manholes.

If any of the tests are not met, the contractor shall, at his own expense, determine the source of the problem and repair or replace all defective materials.

C.3 Determination of Active Sanitary Laterals
Dye test and/or provide the necessary inspections to determine which laterals are active and to be reconnected and relayed. City staff will be available to assist the contractor in making this determination. Existing connections to the main, as indicated by a previous television report, are shown on the plan and could be either active or inactive.

C.4 Depth of New Sanitary Laterals
Make every effort to maximize the depth of the new sanitary lateral beneath the sidewalk elevation and then connect with 45-degree bends to meet the existing lateral elevation. Additionally, keep the sanitary laterals deep enough to avoid conflicts with other utilities. This

can be accomplished by having a riser located at the mainline connection and another riser located near the connection to the existing pipe near the right-of-way line or as directed by the engineer.

C.5 Sanitary Lateral Slope
Where new sewer is to be installed to replace existing sanitary sewer, service laterals shall be extended from the old sanitary lateral and connected to the new main. Minimum grade of lateral extensions shall be 1/8 inch per foot. Maximum grade of lateral extensions shall be 1/2 inch per foot. Lateral extensions which require a grade in excess of 1/2 inch per foot to connect new sewers to existing service laterals shall be installed with a riser section.

C.6 Sanitary Lateral Marking
Laterals to vacant parcels or for future use shall be marked with a full depth 2x4 board.

C.7 Maintaining Sanitary Sewer Service
Provide adequate equipment and facilities to provide bypass pumping for all elements of work requiring interruption to flow in the sanitary sewer. The contractor is responsible for damages to private or public property due to sewer backup while controlling sewage flow.

C.8 Water/Sewer Pipe Crossings
The contractor shall maintain the following minimum separations. Wherever the sewer crosses above a water main maintain a clear vertical separation of 18 inches (outside of pipe to outside of pipe) and wherever the sewer crosses below the water main maintain a clear vertical separation of 6 inches (outside of pipe to outside of pipe).

C.9 Cleaning
The contractor is responsible to see that manholes and sewer lines are free of dirt, gravel and debris, from the construction operations, at all times. The city will notify the contractor of any debris identified, and if the contractor fails to properly clean said debris, the city will charge the contractor for the cleaning of any manholes and sewer lines on this project during the progress of construction and until final acceptance of the improvements.

Upon completion of the work, thoroughly clean out all manholes and pipe along the entire length of the project before leaving the construction site.

C.10 Sanitary Lateral Pipe Size
The pipe size of the various existing sanitary building laterals is unknown at this time. The contractor shall have a sufficient amount of both 4-inch and 6-inch nominal diameter pipe on hand to make equivalent size replacements.

C.11 Televising Completed Work
The completed sanitary sewer main and laterals shall be televised according to City of Kaukauna Televising Specifications and a copy of said video and a full report shall be given to the Engineering Department.

D Measurement

The department will measure 8-Inch Sanitary PVC Pipe and Sanitary Sewer Lateral 4 or 6-inch by the linear foot, approved by the City of Kaukauna, and acceptably completed. The measurement for sanitary mainline is the actual length of pipe and does not include the inside diameter of sanitary manholes. The measurement for sanitary lateral is the actual length of pipe from the wye fitting at the mainline along with any risers, vertical bends, horizontal bends and couplings that may be required to the connection point onto the existing lateral pipe.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.12	8-Inch Sanitary PVC Pipe	LF
SPV.0090.13	Sanitary Sewer Lateral 4 or 6-Inch	LF

Payment is full compensation for providing all labor and materials, including couplings, vertical risers, vertical and horizontal bends, and other required fittings; for furnishing all dye testing or inspection required to identify active laterals; for furnishing all excavating, except rock excavation; furnishing and placing pipe bedding and hunching material; for forming foundation; for replacing unstable material in the trench bottom; for sheeting and shoring; for dewatering; for laying pipe; for placing granular backfill; compacting the backfill; for removing sheeting and shoring; for providing flow control and temporary pumping; for testing; for cleaning out pipes, for televising the completed work, and restoring the worksite.

Payment for Sanitary Sewer Lateral also includes all work and materials, and miscellaneous fittings to properly connect the new lateral to the existing lateral pipe according to the specifications. Additionally, if the city directs the contractor to install a lateral without connecting it to an existing pipe (for a future connection), then this work item shall also include any fittings required to properly cap or plug the end of the pipe.

62. Storm Lateral 4-Inch, Item SPV.0090.14; Storm Lateral 6-Inch, SPV.0090.16.

A Description

Perform this work in accordance to the pertinent requirements of standard spec 608 and 612 and as modified in this special provision.

B Materials

Furnish schedule 40 Polyvinyl Chloride (PVC) Sewer Pipe meeting the requirements of ASTM D1785. Furnish PVC fittings meeting the requirements of ASTM D2564.

Each length of pipe and each fitting shall be marked as follows:

a. Manufacture's name and trademark.
b. Nominal pipe size.
c. Pipe classification.
d. The legend, I.e. "Scheduele-40 PVC Sewer Pipe"
e. ASTM Designation
f. Extrusion date, period of manufacture, or lot number

Packaging, handling and shipment of PVC pipe shall be in accordance with manufacturer's instructions and specifications.

Furnish rubber gaskets to connect storm to provide water tight connection to storm main or inlet.

Furnish 2" x 4" boards or City of Kaukauna approved alternate to mark locations of storm sewer laterals.

Furnish 24" wide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230 for all storm laterals that have less than 3 feet of cover.

C Construction

Storm lateral locations will be staked by the City of Kaukauna. Contact John Neumeier, (920) 766-6505, a minimum of one week prior to installation to request staking.

Storm lateral shall be laid with a minimum slope of 1/8 inch per foot unless otherwise approved by the Engineer. At locations where laterals are not connected to an existing lateral, the lateral shall have a minimum depth of cover at two feet behind the sidewalk of 4 feet. If a minimum of 4 feet of cover is not achievable due to depth of the storm sewer, provide maximum depth possible.

When depth of cover over storm lateral is less than 3 feet, install a 24" wide piece of 2" thick polystyrene insulation board 6" above the top of the pipe. Insulation board shall be installed on a smooth, uniformly graded and compacted surface, and then backfill added.

Storm sewer lateral connections to concrete storm sewer main and inlets shall be core drilled. Install a rubber gasket to provide a watertight seal and begin with a short piece of storm lateral pipe with a bell end to prevent possible lateral intrusion into the storm sewer main.

Cap all laterals that are stubbed for future connections. Mark ends storm sewer lateral with a 2" x 4" board buried full depth or City of Kaukauna approved alternate marker. Marker shall extend a minimum of one foot above existing grade and sprayed orange in color.

D Measurement

The department will measure Storm Lateral (Inch) in length by the linear foot in place, acceptably completed, and the quantity measured for payment shall be the horizontal distance measured along the centerline of the pipe from the inside edge of the inlet, manhole or storm sewer pipe to the upstream where connection to existing is made or pipe is stubbed for future connection.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.14	Storm Lateral 4-Inch	LF
SPV.0090.16	Storm Lateral 6-Inch	LF

Payment is full compensation for furnishing all material including elbows, connections; fittings; caps; coring the storm sewer and inlets or manholes; providing and installing watertight connectors; for laying pipe: for connecting to inlets, manholes, or storm sewer main; for backfilling; for furnishing bedding materials; for marking ends of pipe; and for disposing of all excess material.

Polystyrene insulation board, when required, will be paid for separately.

63. Televising Storm Sewer, Item SPV.0090.15.

A Description

Inspect and document all storm sewer trunk-lines, inlet leads, laterals and manholes installed under this contract with closed circuit television as shown on the plans and as hereinafter provided.

B Materials

B.1 Video Recording

The entire inspection must be recorded on a DVD, capable of being viewed on a DVD player or Windows media player.

B.2 Closed Circuit Television Camera

Television equipment shall include television camera, television monitor, cables, power source, lights and other equipment. The television camera shall be specifically designed and constructed for operation in connection with sewer inspection and include the following features:

1. Pan and Tilt Radial View Color Sewer TV Camera.
2. 360 Degree Radial x 300 Degree Pan and Tilt Viewing Field.
3. Multi-Conductor.
4. Remote Adjustable Optical Focus, Remote Light Compensating Iris.
5. Automatic White Balance Circuitry, NTSC Color.
6. Low Light, 3 Lux Camera.

The pan and tilt view camera to be specifically designed to provide a close-up view of sewer pipe walls and lateral entrances through the use of a low light sensitive camera, movable camera head and directional lighting. Unit to be color, and designed for operation through up to 2,000-feet of multi-conductor cable in sanitary and storm sewers. Chassis construction to be 100% solid state circuitry designed to withstand shocks and vibration normally sustained while being pulled through a pipe. The image pick-up device to be low light sensitive, 3 Lux, solid-state camera incorporating the latest high resolution closed circuit television technology. Operating climatic ranges of the camera is to be -10ºC to +30ºC, and up to 100% relative humidity.

The remote reading footage counter is to be accurate to 1% over the length of the particular section being inspected and mounted over the television monitor.

B.3 Sewer Cleaning Equipment

Sewer cleaning equipment shall consist of a jet cleaner with a vacuum/air transport debris removal system.

The water pump system on the cleaning vehicle must have the ability to pump between 50 to 65-gallons per minute at a pressure of 1,200 to 1,500 pounds per square inch. Units with pumps smaller than this will not be acceptable.

C Construction

C.1 Sewer Flow Control

When sewer depth of flow at the upstream manhole of the manhole section being worked is above the maximum allowable for television inspection, joint testing and/or sealing; reduce flow to the level shown below by operation of pump stations, plugging or blocking of the flow, or by pumping and bypassing of the flow, as specified.

Depth of flow shall not exceed that shown below for the respective pipe sizes, as measured in the manhole when performing television inspection.

Maximum Depth of Flow Television Inspection

- 6 to 10-inch Pipe 20% Of Pipe Diameter
- 12 to 24-inch Pipe 25% Of Pipe Diameter
- 27-inch and Larger Pipe 30% Of Pipe Diameter

Plugging or Blocking: Insert a sewer line plug into the line upstream of the section being worked. The plug is to be designed so that all or any portion of the sewage can be released. During television inspection, testing and sealing operations, reduce flow to be within the limits specified above. After the work has been completed, restore flow to normal.

Pumping and Bypassing: When pumping and bypassing is required, supply the pumps, conduits and other equipment to divert the flow of sewage around the manhole section in which work is to be performed. The bypass system is to be of sufficient capacity to handle existing flow, plus additional flow that may occur during a rainstorm. Furnish the necessary

labor and supervision to set up and operate the pumping and bypassing system. If pumping is required on a 24-hour basis, equip engines in a manner to keep noise to a minimum.

Flow Control Precautions: When flow in a sewer line is plugged, blocked or bypassed, take sufficient precautions to protect the sewer lines from damage that might result from sewer surcharging. Precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being serviced by the sewers involved.

C.2 Preparation/Coordination

Dispose of any and all debris removed from the sewers during the cleaning process in compliance with all Federal, State and local requirements. Pay any and all fees associated with the proper disposal of these materials. The City of Kaukauna will not have a disposal site available.

C.3 Television Inspection

Move camera through the line in either direction at a uniform rate, but no greater than 30-feet per minute, stopping when necessary to ensure proper documentation of the sewer's condition. Use manual winches, power winches, TV cable and powered rewinds, or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions, when moving the camera through the sewer line. If, during the inspection operation, the television camera will not pass through the entire manhole section, reset the equipment in a manner so the inspection can be performed from the opposite manhole.

In the event the section being televised has substantial flow entering the sewer between manholes, such that inspection of the sewer is impaired, coordinate with the owner of source of flow to have such flow temporarily stopped and/or reschedule television inspection of the particular section to a time when such flow is reduced to permit proceeding with the television inspection.

When sewer line depth of flow at the upstream manhole of the section being televised is above the maximum allowable for television inspection, reduce the flow to permit proceeding with the television inspection.

Whenever non-remote powered and controlled winches are used to pull the television camera through the line, telephones, use radios or other suitable means of communication set up between the two manholes of the section being inspected to ensure that adequate communications exist between members of the crews.

Check accuracy of the measurement meters daily by use of a walking meter, roll-a-tape or other suitable device. Begin footage measurements at the sewer line point of penetration of the upstream manhole unless specific permission is given to do otherwise. Show footage on the video data view at all times.

C.4 Documentation of Television Results

Document television inspections through the use of an in-vehicle computer system; system to be IBM compatible on a DVD or CD. All defects and general information on the pipe being

viewed along with an index for retrieving the information must be supplied to the City of Kaukauna as part of the report.

Television inspection logs to be typed or computer printed, and be acceptable to the engineer. Printed location reports shall clearly show the location, in relation to adjacent manholes, of each source of infiltration discovered. In addition, record other data of significance, including the location of buildings and house service connections, joints, unusual conditions, roots, storm sewer connections, collapsed sections, presence of scale and corrosion, and other discernible features. Include a voice recording on the DVD that makes brief and informative comments on the sewer conditions.

The measurement of distance to defects is critical in confirming the location of areas to be excavated.

Make color DVD recordings of the data on the television monitor. Provide two copies of each DVD; one for the City of Kaukauna, and one for the engineer.

Speed of recording playback to be the same speed that it was recorded. Establish tabs for the start of each sewer segment. Title to the DVD will remain with the City of Kaukauna. All DVD's and necessary playback equipment to be readily accessible for review by the engineer during the televising process.

Include the following information on the DVD's and computer logs:

DVD Data View:

1. Report number.
2. Date of television inspection.
3. Upstream and downstream manhole numbers.
4. Current distance along reach.
5. Printed labels on the container and DVD, with location information, date, format information and other descriptive information.

DVD Audio:

1. Date and time of television inspection, operator name and name of adjacent street.
2. Verbal confirmation of upstream and downstream manhole numbers and TV direction in relation to direction of flow.
3. Verbal description of pipe size, type and pipe joint length.
4. Verbal description and location of each service connection and pipe defect.
5. Type of weather during inspection.

Computerized Logs:

1. Location of each point of leakage.
2. Location of each service connection.
3. Location of any damaged sections, nature of damage and location with respect to pipe axis.
4. Deflection in alignment or grade of pipe.

5. Record of repairs and quantity of sealing material used (if applicable).
6. Date, time, municipality, street, basin, manhole section, reference manhole number, name of operator, inspector and weather conditions.
7. Pipe diameter, pipe material, section length and corresponding DVD identification.

C.5 Cleaning Requirements
Remove all debris and sediment to assure that the storm sewer can perform as designed.

C.6 Manhole Inspection Reports
Provide digital photographs of each manhole including:
1. Casting / frame at ground surface.
2. Bench.
3. General inside.
4. Observed leaks or structural failures.
5. Provide copies of digital photos printed out with all photographs of each structure on one each 8½" x 11" sheet.
6. Provide a computer CD with all pictures indexed by a structure identification number, which is the same as the structure identification number included in the televising reports.

D Measurement
The department will measure Storm Sewer Televising by the linear foot, acceptably completed. Measure along the centerline of the pipe, from the pipe end at a free outlet to the center of the end catch basin, inlet, manhole, lateral junction or other drainage structure; or from center to center of end catch basins, manholes, laterals, inlets, other drainage structures or junctions. The department will not make deductions from these measured lengths for intermediate catch basins, manholes, inlets, or other drainage structures, junctions or 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.0090.15	Televising Storm Sewer	LF

Payment is full compensation for providing all labor and materials necessary to properly perform the work described under this section for the storm sewer pipes installed under this project.

64. Pipe Underdrain Railroad 6-Inch, Item SPV.0090.17.

A Description
This special provision describes constructing perforated and unperforated pipe underdrain adjacent to railroad tracks according to standard spec 612, as shown in the plans, as directed by the engineer, and as hereinafter provided.

B Materials
Furnish Schedule 80 PVC pipe according to the requirements of ASTM Specification D1784 and D1785. Furnish pipe perforated according to AASHTO M278. Fittings shall conform to ASTM D4396.

Furbish Geotextile Type DF Schedule A meeting the requirements of standard spec 645.2.2.4.

Furbish Base Aggregate Open Graded meeting the requirements of standard spec 310.2.

C Construction
Construct according to the requirements of standard spec 612.3 and as shown in the plans.

Geotextile Type DF Schedule A is to be installed in the excavation slope and wrapped around the pipe underdrain.

D Measurement
The department will measure Pipe Underdrain Railroad 6-Inch 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.0090.17	Pipe Underdrain Railroad 6-Inch	LF

Payment is full compensation for furnishing all materials including pipe, end caps, fittings, bends, connections, and for laying pipe.

Geotextile Fabric Type DF Schedule A and Base Aggregate Open Graded will be paid for separately.

65. Concrete Curb and Gutter Special 24-Inch Type D, Item SPV.0090.18.

A Description
This special provision describes constructing special curb and gutter concrete at the locations shown on the plans, or as directed by the engineer.

B Materials
Furnish materials for the work conforming the pertinent requirements of standard spec 601.2.

C Construction
Construct according to the requirements of standard spec 601.3. Match curb section to existing curb and gutter adjacent to the new work.

D Measurement
The department will measure Concrete Curb and Gutter Special 24-Inch Type D according to standard spec 601.4

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.18	Concrete Curb and Gutter Special 24-Inch Type D	LF

Payment is full compensation according to standard spec 601.5.

66. Storm Sewer Pipe PVC 12-Inch, Item SPV.0090.19; Storm Sewer Pipe PVC 15-Inch, Item SPV.0090.20.

A Description
This special provision describes furnishing and installing PVC storm sewer in accordance with standard spec 607 and as follows:

B Materials
Supplement standard spec 607.2 as follows:

Furnish Storm Sewer PVC in accordance with ASTM D-3034 Schedule 35 or City of Kaukauna Approved equal.

Furnish rubber gaskets to connect storm to provide water tight connection to storm main or inlet.

Furnish fittings where necessary to connect Storm Sewer PVC to existing pipes.

C Construction
Storm sewer lateral connections to concrete storm sewer main shall be core drilled. Install a rubber gasket to provide a watertight seal and begin with a short piece of storm lateral pipe with a bell end to prevent possible lateral intrusion into the storm sewer main.

D Measurement
The department will measure Storm Sewer PVC 12-Inch and Storm Sewer PVC 15-Inch by the linear foot in accordance with standard spec 607.4.1.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.19	Storm Sewer Pipe PVC 12-Inch	LF
SPV.0090.20	Storm Sewer Pipe PVC 15-Inch	LF

Payment is full compensation for furnishing all material including elbows, connections; fittings; coring the storm sewer; providing and installing watertight connectors; for laying pipe, for connecting to existing pipes, inlets, manholes, or storm sewer main; for backfilling; for furnishing bedding materials; and for disposing of all excess material.

67. Removing Flasher Standard System STH 55 and CTH OO Intersection, Item SPV.0105.01.

A Description

This special provision describes removing flasher standard system at the STH 55 and CTH OO intersection according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction

Notify Outagamie County at least five working days prior to the desired starting date for the removal of the flasher standard equipment. Outagamie County will arrange for de-energizing the flasher standards with the local electrical utility. Contact Andy Rowell at (920) 968-5756.

Remove the flashers, poles and pedestal bases from the concrete bases and transport off site to the electrical subcontractor facilities or to a recycling/garbage facility.

The underground cable, wires, and conduits shall become the property of the contractor to be disposed of properly.

D Measurement

The department will measure Removing Flasher Standard System STH 55 and CTH OO Intersection as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Removing Flasher Standard System STH 55 and CTH OO Intersection	LS

Payment for Remove Flasher Standard System STH 55 and CTH OO Intersection is full compensation for removal and transporting to the appropriate facility.

The department will pay separately for removal of concrete bases, pull boxes and utility pole.

68. Traffic Signal Systems Integrator (4650-08-71), Item SPV.0105.02.

A Description

This special provision describes personnel qualifications, contract roles, construction methods, testing and documentation requirements used to perform traffic signal work.

B Materials

Materials shall be according to standard spec 651.2 and as hereinafter provided:

Facilitate all contractor and department-furnished item approvals and orders for scheduling of installation activities.

C Construction

Construction shall be according to standard spec 670.3 except for the term "ITS" being replaced by "Traffic Signal", and as hereinafter provided:

Delete the requirement for the Integrator to be selected from the department's approved field system integrator list. The Traffic Signal Systems Integrator may be on the list but shall also demonstrate qualifications necessary to provide management, assistance and expertise in the areas listed under standard spec 670.3.2.1. The Integrator shall also have experience with assembling components of traffic signal systems to include the following:

- Standard equipment for standard traffic signals
- Emergency vehicle preemption equipment and installation
- Railroad preemption
- Street lighting controls
- Signal timing

Provide an ongoing role as integrator beginning with the compilation, review and approval of material submittals, through installation, testing, trouble-shooting, final acceptance of the working traffic signal system and all components, and providing as-builts. Ensure all equipment is delivered and properly installed within the specified timeframes enforced under this contract.

D Measurement

The department will measure Traffic Signal Systems Integrator as a single lump sum unit for all services, acceptably completed under the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.02	Traffic Signal Systems Integrator (4650-08-71)	LS

Payment is full compensation for providing specified expertise, assistance, assembly, signal controller programming, and documentation. The department will pay separately for other traffic signal work under the various bid items in the contract.

69. Furnish And Install Traffic Signal Cabinet Controller And Battery Backup System, Item SPV.0105.03.

A Description

This specification describes furnishing and installing an equipped NEMA TS2 Type 1 traffic signal control cabinet at intersections. Cabinet components, including, but not limited to the traffic signal controller, malfunction management unit (MMU), bus interface units (BIU), flash transfer relays, battery backup system, and railroad preemption interface will also be furnished and installed as part of these bid items as appropriate.

The traffic signal cabinet shall include a Siemens EPAC6138M62 traffic signal controller. The cabinet shall be equipped with battery backup and configured for railroad preemption.

B Materials

Furnish and install equipment and assemble the cabinet conforming to the latest revision of NEMA Standards Publication TS 2-2003, *Traffic Controller Assemblies with NTCIP Requirements*, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard, except where modified in this specification. Conform all work to the Wisconsin State Electrical Code (WSEC).

Provide cabinets designed for TS2 Type 1 operation. Pre-wire cabinets for a minimum of sixteen phases as specified herein.

Furnish and install at no extra cost any equipment, software, and materials not specifically described but required in order to perform the intended functions in the cabinet.

C Construction

C.1 Cabinet

C.1.1 Design

Furnish a door-in-door ground mounted (without anchor bolts) aluminum cabinet of clean-cut design and appearance. Provide a cabinet of minimum size 44 inches wide, minimum 24 inches deep, and minimum 52 inches to maximum 60 inches high. The size of the cabinet shall provide ample space for housing the controller, all of the associated devices which are to be furnished with the controller, all other auxiliary devices herein specified, and all equipment to be furnished and installed by others as listed in the Description section of this specification.

The cabinet shall comply with the environmental and operating standards outlined in the NEMA TS2 Standard. The cabinet shall provide reasonable vandalism protection. The cabinet shall have a NEMA 3R rating.

Construct the cabinet from type 5052-H32 aluminum with a minimum thickness of 0.125 inches. Furnish the cabinet with a natural, uncoated, aluminum finish inside and a black exterior finish, anodized and factory applied to match the existing traffic signal equipment. Continuously weld all seams. The surface shall be smooth, free of marks and scratches. Use stainless steel for all external hardware.

On the top of the cabinet, incorporate a 1-inch slope toward the rear to prevent rain accumulation. Incorporate a rain channel into the design of the main door opening to prevent liquids from entering the enclosure.

Include an exhaust plenum with a vent screen into the roof of the cabinet. Perforations in the vent screen shall not exceed 0.125 inches in diameter.

Equip the lower section of the cabinet door with a louvered air entrance. The air inlet shall be large enough to allow sufficient air flow per the rated fan capacity. Louvers must satisfy the NEMA rod entry test for Type 3R ventilated enclosures. Secure a washable, fiberglass, removable air filter to the air entrance. The filter shall fit snugly against the cabinet door wall. Attach an aluminum, easily removable, gasketed cover over the air filter and louver.

C.1.2 Doors

The cabinet door opening shall be a minimum of 80 percent of the front surface of the cabinet. The main door and police door-in-door shall each close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door shall be a minimum of 0.188 inches thick by 1.00-inch wide. The gasket material for the police door shall be a minimum of 0.188 inches thick by 0.500 inches wide. Permanently bond the gaskets to the cabinet.

Equip the main door with a three-point latching mechanism. The upper and lower locking points of the latching mechanism shall each have a pair of nylon rollers. The handle on the main door shall utilize a shank of stainless steel 3/4 inches minimum diameter. The handle shall include a hasp for the attachment of an optional padlock. The cabinet door handle may turn either clockwise or counterclockwise to open and shall not extend outwards past the edge of the door at any time. Position the lock assembly so the key will not cause any interference with the handle, or a person’s hand on the handle, when opening the cabinet door.

Include on the main door a solid stainless steel rod stop and catch mechanism capable of rigidly holding the door open at approximately 90, 120, and 180 degrees under windy conditions. The operator must be able to engage and disengage the catch with a shoed or booted foot.

The main door hinge shall be a one-piece, continuous piano hinge with a minimum 0.25-inch stainless steel pin running the entire length of the right side of the door (right-handed). Attach the hinge in such a manner that no rivets or bolts are exposed.

Equip the main door with a brass Corbin tumbler lock No. 2, swing away dust cap, and provide two keys No. 2. Equip the police door-in-door with a standard police lock and provide one key.

C.1.3 Shelves and Mountings

Mount a minimum of three vertical "C" channels, compatible with Unistrut channel nuts, on each interior side wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. Install three vertical "C" channels or three slotted rails on the interior back wall of the cabinet. All mounting channels and rails shall extend to within 7 inches of the top and bottom of the cabinets and shall be of sufficient strength to rigidly hold specified shelves and equipment.

Provide two full-width, 11-inch deep, fully adjustable, aluminum shelves to support the controller and other equipment. Mount the lower shelf at a height above the bottom of the cabinet such that the shelf and attached drawer does not interfere with the ability to tilt the terminal facility forward on its hinges for maintenance purposes. Mount the top shelf at least 13 inches above the surface of the lower shelf.

Locate the controller and MMU on the top shelf. Locate the loop detector racks and other auxiliary equipment on the lower shelf. The power supply may be mounted on either shelf.

Provide an under-shelf drawer under the lower shelf. The drawer shall be approximately 20 inches wide and the full depth of the shelf. The drawer shall operate easily and smoothly and shall have a stop to prevent inadvertently pulling the drawer out of its support. Design the stop to allow purposeful complete removal of the drawer without the use of tools.

C.1.4 Auxiliary Cabinet Equipment

Ventilate the cabinet by means of a 120 VAC, 60HZ, tube axial compact type fan located in the top of the cabinet plenum. The fan’s free delivery airflow shall be equal to or greater than 100 cubic feet per minute. The magnetic field of the fan motor shall not affect the performance of control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp, or have bearing failure within a seven-year duty cycle. The maximum noise level shall be less than 40 decibels. The fan unit shall be corrosion resistant. The thermostat's turn on setting shall be adjustable from 90 to 120 degrees F. The fan shall run until the cabinet temperature decreases below the turn-on temperature setting by approximately 30 degrees F. The fan shall be fused.

Mount an incandescent lamp and socket in the cabinet to sufficiently illuminate the field terminals. Wire the lamp to a 15-amp ON/OFF toggle switch mounted as specified in the Cabinet Switches section of this specification.

Provide a 250-watt element heater. Install the heater on the face of the aluminum, louvered air filter cover such that feed air is supplied through the cover. Provide a protective, ventilated cover over the heater. Provide a cord and twist-off plug to an electrical receptacle on the cabinet door. Provide a thermostat with an adjustable setting from 0 to 100 degrees F. Install the thermostat on the interior ceiling of the cabinet well away from the cabinet light or any heat source. Provide a thermal limit switch to prevent the heater’s protective cover from exceeding 170 degrees F.

C.2 Terminals and Facilities

C.2.1 Terminal Facility

The terminal facility panel constructed from 5052-H32 brushed aluminum of 0.125 inches minimum thickness and formed so as to eliminate any flexing when plug-in components are installed.

Mount the bottom of the terminal facility a minimum of nine inches from the bottom of the cabinet. Hinge the terminal facility at the bottom to allow easy access with simple tools to all wiring on the rear of the panel. It shall not be necessary to remove the lower shelf, the shelf drawer, or any shelf-mounted equipment to hinge down the terminal facility. Provide sufficient slack in the load bay wiring to allow for dropping the load bay.

Fully wire the terminal facility with sixteen load switch sockets: eight phases of vehicular, four phases of pedestrian, and four phases of overlap operation; eight flash transfer relay sockets; one flasher socket; and two terminal facility BIU rack slots. The use of printed circuit boards is not acceptable on the terminal facility, except printed circuit boards are acceptable for the BIU interface with the load bay. Position the 16 load switch sockets in two horizontal rows of eight sockets each. Support the load switches and flasher by a bracket or shelf extending at least three inches from the terminal facility.

Label all terminals, load switches, and flash transfer relay sockets. Label reference designators by silk-screening on the front and rear of the terminal facility to match drawing designations.

Provide rack mounted BIU's. Provide a dual-row, 64-pin female DIN 41612 Type B connector for each BIU rack position. Provide card guides for both edges of the BIU. Terminal and facilities BIU mounting shall be an integral part of the terminal facility.

Provide two each 16-channel, 8-position, TS2 detector racks, each with an integrally mounted BIU mounting. Racks shall be addressable. Power each detector rack by the cabinet power supply. Fasten the loop detector racks towards the left side of the lower shelf.

For BIU rack connectors, provide pre-wired address pins or jumper plugs corresponding to the requirements of the NEMA TS2 Standard. The address pins or jumper plugs shall control the BIU mode of operation. BIUs shall be capable of being interchanged with no additional programming.

For the terminal facility, contain all field wires within one or two rows of horizontally-mounted Marathon heavy duty terminal blocks. Terminate all field output circuits on an unfused terminal block with a minimum rating of 10 amps. Use mechanical connector lugs rated for copper wire. Angle the lower section of the terminal block out from the back of the cabinet at approximately a 45-degree angle.

Identify all field input/output (I/O) terminals by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS2 Standard.

All field flash sequence programming at the field terminals shall be able to be accomplished with the use of only a screwdriver.

Wire field terminal blocks to use three positions per vehicle or overlap phase (green, yellow, red).

Wire one RC network in parallel with each flash transfer relay coil.

Permanently label all logic-level, NEMA-controller and MMU input and output terminations on the terminal facility. Identity the function of each terminal position on the cabinet drawings.

Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32-inch screw as minimum. Functions to be terminated shall be as specified in the listing of Input/ Output Terminals in Section 5 of the NEMA TS2 Standard.

Conform all terminal facility and cabinet wiring to the WSEC. The green/ walk, yellow, and red/ don't walk load switch outputs shall be minimum 16-gauge wire. The MMU (other than AC power), controller I/O, and logic ground shall be minimum 22-gauge wire. All wire colors shall be consistent in all cabinets furnished in one order.

C.3 Auxiliary Panels

C.3.1 Vehicle Detection Interface Panel

Provide a 32-position interface panel or two 16-position panels. Each interface panel shall allow for the connection of 32 or 16 independent field loops, respectively. The panels shall have barrier strip type terminals using 8-32 screws and be rated for 20-inch pounds of torque. Provide a ground bus terminal between each loop pair terminal to provide a termination for the loop lead-in cable ground wire. Secure the interface panels to a mounting plate attached to the left interior side wall of the cabinet.

Provide a cable consisting of 20 AWG twisted pair wires to enable connection to and from the interface panel to a detector rack. The twisted pair wires shall be color-coded wires. Provide a cable of sufficient length to allow the detector rack to be placed on either shelf.

Identify all termination points by a unique number silk screened on the panel.

C.3.2 Intersection Lighting Control Panel

Provide an intersection lighting control panel as described. The intersection lighting control panel shall consist of an aluminum panel 0.125 inches thick and approximately 5 inches by 10 inches. Determine the actual panel size by the cabinet’s mounting rail placement. Attach to the panel a 2 pole-30-amp contactor-120vac coil (Square D #8910DPA32V02 or equal), and a heavy duty six position terminal block (Marathon DJ1606 or equal). Use wire sizes 10AWG for power and load wiring, and 16AWG for control wires. Wire the terminal strip as follows:

- Control coil
- L1 in
- L2 in
- Neutral in and control coil
- L1 out
- L2 out

Protect each output by a MOV (V150LA20A) wired between the output and neutral. Include a photo control (Intermatic #K4021C or equal). Mount the photo control just above the cabinet door and approximately 12 inches from the right side of the cabinet. Wire the photo control to a 3-position terminal switch using 16AWG wire color coded to match the photo control wiring connected to the intersection lighting control panel.

C.3.3 Conductors and Cabling

All conductors in the cabinet shall be copper 22 AWG or larger. All 14 AWG and smaller wire shall conform to MIL-W-16878/1, Type B, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation without clear nylon jacket and rated to 105 degrees Celsius. All 12 AWG and larger wire shall be UL listed THHN/THWN 90 degrees Celsius, 600V, 0.020 inches thick PVC insulation, and clear nylon jacketed.
Provide controller and MMU cables of sufficient length to allow the units to be placed on either cabinet shelf in the operating mode. Connecting cables shall be sleeved in a braided nylon mesh. Exposed tie-wraps and interwoven cables are unacceptable.

Provide the cabinet configuration with enough SDLC RS-485 Port 1 communication cables to allow full capabilities of that cabinet. Each communication cable connector shall be a 15-pin metal shell D subminiature type. The cable shall be a shielded cable suitable for RS-485 communications. Secure all connecting cables and wire runs by mechanical clamps. Stick-on type clamps are not acceptable.

Pre-wire the terminal facility for a Type 16 MMU.

All wiring shall be neat in appearance. Stow excess cable behind the terminal facility or below the shelves in order to allow easy access to the terminal facility and cabinet components. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.

Wire the grounding system in the cabinet into three separate circuits: AC Neutral, Earth Ground, and Logic Ground.

Optoisolate all pedestrian pushbutton inputs from the field to the controller through the BIU and operate at 12 VAC.

Hook or loop all wire, size 16 AWG or smaller, at solder joints around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.

C.3.4 Cabinet Switches

Locate the following switches on a maintenance panel on the inside of the cabinet door:

a. Controller On/Off
b. Cabinet Light
c. Stop Time (Three Position)
d. Manual Detector Switches (Three Position)

Position	Switch Label	Function
Upper	Stop Time	Place stop time on the controller
Center	Run	Remove the stop time input to the controller
Lower	Normal	Connects the MMU to the controller stop time input

Provide manual detector switches. Provide a minimum of 16 vehicle detector switches, and four pedestrian detector switches. The switches shall be spring loaded and automatically return to the center position. Wire the vehicle detector switches to detector BIU slot 1. Wire the pedestrian switches to the T&F BIU slot 1. The switches shall operate as follows:

Position	Function
Up	Detector Disabled
Center	Detector Enabled
Down	Detector Called

C.3.5 Railroad Preemption Interface Panel

Furnish equipment conforming to the latest revision of NEMA Standards Publication TS 2-2003, *Traffic Controller Assemblies with NTCIP Requirements*, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard, except where modified in this specification. Conform all work to the Wisconsin State Electrical Code (WSEC). Conform all work to standard spec 651, as supplemented in this specification.

Provide a railroad preempt interconnect panel built to meet WisDOT and railroad requirements for the intersection where the railroad preempt is being installed. Contact the WisDOT electrical shop supervisor in Madison at (608) 246-3269 to request the requirements. The interconnect panel shall be capable of providing a full 8-wire interconnect with both advance and gate-down preempt sequences. The interface panel shall also be capable of operating with a minimum 2-wire interconnect, single sequence preempt.

Install the interface panel on the left inside wall of the signal cabinet. Furnish and install any cabling necessary for interconnection with the devices in the signal cabinet with which the interface panel is intended to communicate. Make the interface panel fully operational.

Contact WisDOT State Traffic Signal Systems Engineer, Joanna Bush, at (608) 261-5845 to request a review and approval of the traffic signal controller programming for the railroad preemption operation. WisDOT personnel shall be present at the time of final traffic signal turn on. Contact Joanna Bush at least two weeks prior to final traffic signal turn on to make arrangements.

C.4 Power Panel

C.4.1 Design

The power panel shall consist of a separate module, securely fastened to the interior right side wall of the cabinet. Wire the power panel to provide the necessary power to the cabinet, controller, MMU, cabinet power supply, and all auxiliary equipment. Manufacture the power panel from 0.090-inch, 5052-H32 aluminum. Panel layout shall facilitate field inspection and maintenance accessibility without excessive disassembly or special tools.

Provide a light, tough, transparent, weather-resistant, non-yellowing, thermoplastic cover, rigidly mounted over the full power panel, with access holes for circuit breakers and other equipment, and open on the sides for ventilation.

C.4.2 Bus Bar

Provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

C.4.3 Circuit Breakers

House in the power panel the following vertically mounted, single pole, 120 volts AC, 60 Hertz, circuit breakers, with the ON position being up:

- One 30-amp signal breaker. This breaker shall supply power for all cabinet functions not powered through one of the other breakers or fuses listed below. Streetlights will be powered from outside the cabinet in the meter breaker pedestal. This breaker shall feed a signal bus supplied through a solid state bus relay and a radio interference line filter. The bus relay, in all cases, shall be a solid state contactor and shall not be jack mounted. Breakers shall be thermal magnetic type, UL listed, with a minimum of 22,000 amp interrupting capacity.
- One 15-amp auxiliary breaker. This breaker shall supply power to the fan and heater**.**
- One 10-amp breaker. This breaker shall supply power for control equipment: controller, MMU, and cabinet power supply.
- One 20-amp circuit breaker for future use.

Power the cabinet light through the GFI fuse, not a circuit breaker.

C.4.4 Radio Interference Suppressor

Equip each control cabinet with a single radio interference suppressor (RIS) of sufficient ampere rating to handle the load requirements. Install the RIS at the input power point. The RIS shall minimize interference in both the broadcast and the aircraft frequencies and shall provide a maximum attenuation of 50 DB over a frequency range from 200 KHZ to 75 MHZ, when used in connection with normal installations. The RIS shall be hermetically sealed in a substantial metal case filled with a suitable insulating compound. The terminals shall be nickel-plated brass studs of sufficient external length to provide space to connect two #8 AWG wires and shall be so mounted that they cannot be turned in the case. Ungrounded terminals shall be properly insulated from each other, and shall maintain a surface leakage distance of not less than 6.35 mm between any exposed current conductor and any other metallic parts. The terminals shall have an insulation factor of 100-200 megohms dependent upon external conditions. The RIS shall be rated at minimum 50 amperes. Design the RIS for operation on

115 VAC +/- 10%, 60HZ, single-phase circuits, and to meet the standards of UL and Radio Manufacturer's Association.

C.4.5 Bus Relay
Provide a normally-open, 60 amp, solid state relay.

C.4.6 Surge Protector
Install a plug-in type EDCO SHA-1250, or Atlantic/Pacific approved equal, surge protector across the load terminal of the 10-amp circuit breaker. Install a General Electric Varistor, catalog #V130PA20A, at the load terminals of the circuit breaker from the hot line to the grounded current carrying neutral conductor. Provide one additional uninstalled surge protector for every 20 cabinets delivered.

C.4.7 Power receptacles
Mount a 120 VAC 20 amp**,** NEMA 5-20R GFCl convenience duplex outlet at each of these two locations:

- On the interior right side wall above the power panel. The outlet shall be fully operational and fuse protected.
- Near the power panel where it will not interfere with power panel maintenance**.** This outlet is to be wired by field installation personnel.

C.4.8 Suppressors and RC Network
Provide a suppressor for each 120 VAC circuit that serves an inductive device, such as a fan motor or a mechanical relay, to protect the controller's solid state devices from excessive voltage surges. Such suppressors shall be in addition to the surge protector at the input power point. Wire one RC network in parallel with each inductive device.

C.5 Auxiliary Devices
C.5.1 Load Switches
Provide solid state load switches conforming to the requirements of Section 6.2 of the NEMA TS2 Standard.

Supply all 16 load switches with each cabinet.

C.5.2 Flashers
Provide a solid state flasher conforming to the requirements of section 6.3 of the NEMA TS2 Standard.

C.5.3 Cabinet Power Supply
Supply one cabinet power supply with each cabinet, meeting the requirements of Section 5.3.5 of the NEMA TS2 Standard. Provide LED indicators for the 12 VDC, 12 VAC, and 24 VDC outputs. Provide jack plugs on the front panel for access to the +24 VDC for test purposes.

C.5.4 Battery Backup System (BBS)

Furnish a BBS at the 1st Avenue traffic signal control cabinet that will provide uninterruptible reliable emergency power to a traffic signal system in the event of a power failure or interruption. The BBS shall be capable of providing power for full run-time operation and for flashing mode operation of all traffic signals at an intersection. The BBS system shall have a shelf mounted configuration and shall include:

- Inverter/charger
- Automatic power transfer switch
- Automatic bypass switch
- Manually operated non-electronic bypass switch
- Manually operated non-electronic generator transfer switch
- All auxiliary equipment, hardware, and wiring to provide a complete operating BBS system
- Cabinet and cabinet equipment
- Batteries and battery equipment

The system shall be designed for outdoor applications, shall meet the environmental requirements of NEMA Standards Publication TS2 – 2003v02.06 – Traffic Controller Assemblies with NTCIP Requirements, except as modified herein, and shall be capable of receiving power from a generator.

Configure the BBS to provide a minimum of two hours of full run-time operation for an intersection using LED traffic signals, LED pedestrian signals, and LED blank out message signs with a total operating load of 1500 watts minimum.

C.5.4.1 Uninterruptible Power Supply

C.5.4.1.1. Features

The UPS shall be an inverter/charger complying with UL 1778.

When utilizing battery power, the BBS output voltage shall be between 110 VAC and 125 VAC, pure sine wave output with THD < 3% at 60 Hz +/- 3 Hz.

Provide buck and boost capability to provide constant output voltage without battery input.

The range of operating temperatures for the inverter/charger shall be -34° C to +74° C.

The UPS shall be fully programmable and controllable, both locally using the UPS touch pad and remotely using a standard personal computer USB interface with Windows XP operating system, including all UPS features listed in this specification; all settings, controls, logs, tests, and counters; and all other electronic features.

Provide a backlit LCD display to indicate current battery charge status, input/output voltages, power output, battery temperature, faults, alarms, date, time, and settings of the various relays.

UPS shall be fully SNMP Ethernet ready, including a RJ-45 (also known as an 8P8C) Ethernet connector port, for future activation. A SNMP card is not required with this specification.

Provide on the UPS a resettable inverter event counter and a cumulative inverter timer.

All controls and external connections shall be on the front panel. The UPS unit shall sit horizontally on a shelf. All controls and labels shall be oriented to read horizontally.

Provide lightning/ surge protection complying with ANSI/IEEE C.62.41 and C.62.45 Cat A & B and UL 1449.

Equip the UPS with an event log for at minimum the last 100 events. The events shall be time and date stamped. The event log shall be retrievable via the USB port and the last event in the log shall be viewable from the LCD screen.

The UPS shall be capable of performing a SELF-TEST of the BBS. The duration of the SELF-TEST shall be programmable in 1-minute increments from one minute to four hours.

The operation of the flash mode shall be field programmable to activate at various times, battery capacities, or alarm conditions.

Provide password protection for certain maintenance controls such as Battery Test, BBS inverter ON/OFF, viewing the Event log, and changing default settings. Furnish the UPS with a default password and the ability for the user to change the password.

Use the following LED lights conditions to indicate current status:

- Red LED Flashing for ALARM
- Red LED steady ON for FAULT
- Green LED Flashing for battery back-up mode
- Green LED steady ON for normal line mode operation

Provide on the UPS at least four sets of NO / NC panel-mounted and potential free contact relays rated 1 Amp, 120 VAC, and labeled 1 through 4. Each relay's setting shall be either preset or programmable to activate under any number of conditions. The available settings for the relays shall be:

- ON BATTERY – relay activates when BBS switches to battery power.
- LOW BATTERY – relay activates when batteries have reached a certain level of remaining useful capacity while on battery power. This number is adjustable by battery voltage.
- TIMER – relay activates after being on battery power for a given amount of time. This number is adjustable from 0 to 8 hours.
- UPS FAILURE – relay activates in the event of UPS inverter/charger failure to be able to run according to these specifications.

C.5.4.1.2 Specifications

Battery String Voltage	48 Vdc

Input Specifications

Nominal Input Voltage	120 VAC, Single Phase
Input Voltage Range	120 VAC +/- 25%
Input Frequency	60 Hz +/- 5%

Output Specifications

Nominal Output Voltage	120 VAC, Single Phase
Power Rating	2000 VA minimum at 25° C (1500 Watts at 74° C)
Output Frequency	60 Hz (+/- 3%)
Voltage Wave Form	Pure Sine Wave, THD < 3.0%
Efficiency (nominal)	Minimum 85% at 100% load

C.5.4.2 Switches

The four switches listed in this section may be in separate units or may be integrated into one or more units.

The range of operating temperatures for all switches shall be -34° C to +74° C.

C.5.4.2.1 Automatic Transfer Switch

Provide an automatic transfer switch to transfer the critical load to the UPS when the utility line fails or is out of tolerance range. The transfer from utility power to battery power shall not interfere with the normal operations of the traffic controller, conflict monitor, or any other peripheral devices within the traffic control system. The automatic transfer switch shall automatically disconnect the battery heater pads when the critical load is operating from the UPS.

Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	20 A minimum

C.5.4.2.2 Automatic Bypass Switch

Furnish an automatic bypass switch to transfer the critical load to the utility line if there is a fault on the UPS, if there is battery failure, and upon complete battery discharge. The transfer from battery power to utility power shall not interfere with the normal operations of the traffic controller, conflict monitor, or any other peripheral devices within the traffic control system.

Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	20 A minimum

C.5.4.2.3 Manual Bypass Switch

Furnish a manual bypass switch to provide a mechanical bypass of the UPS without any interruption of power to the intersection.

Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	20 A minimum

C.5.5.2.4 Generator Transfer Switch

Furnish a generator transfer switch to automatically transfer the input to the UPS from the utility line to a portable AC generator. The switch shall break both line and neutral to the utility, and prevent back-feeding the utility lines.

Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	20 A minimum

C.5.4.3 Other Equipment

Furnish all equipment, mounting hardware, wire, cable, fasteners, and connectors not otherwise specified to provide a complete and operational BBS, including but not limited to, the cable connections to the batteries.

C.5.4.4 Operation

C.5.4.4.1 Loss / Restoration of Utility Power

The BBS shall transfer the load to battery power when the utility line voltage is outside the High and Low Limits. Set the default high and low limits as 130 & 100 VAC, respectively. Operate in the Buck and Boost modes for partial line voltage correction.

For the low line voltage condition, the BBS shall return to line mode when the utility power has been restored to above 105 VAC for the specified line qualification time. This line qualification time shall be user adjustable from 3 to 30 seconds.

For the high line voltage condition, the BBS shall return to line mode when the utility power has been restored to below 125 VAC for the specified line qualification time. This line qualification time shall be user adjustable from 3 to 30 seconds. In cases where the nominal

voltage is between 125 and 130 VAC, the BBS shall return to line mode when the utility power is back to nominal.

The maximum transfer time allowed, from disruption of normal utility line voltage to stabilized inverter line voltage from batteries, shall be 65 milliseconds. The same maximum allowable transfer time shall also apply when switching from inverter line voltage to utility line voltage.

C.5.4.4.2 Battery Operation
In the event of UPS failure, battery failure, or complete battery discharge, the automatic power transfer switch shall revert to the NC (and de-energized) state, where utility power is supplying the cabinet.

Provide a temperature compensated battery charging system. The charging system shall compensate over a wide range of 2.5 to 4 mV / °C / Cell. The charger shall be rated 10 amps at 48 VDC. Batteries shall not be charged when battery temperature exceeds manufacturer's recommendations for the specific batteries being used. The charging system shall fully recharge the batteries within 20 hours.

C.5.4.4.3 Product Compatibility
The BBS shall be compatible with all of the following for full phase operation mode, flash operation mode, or a combination of both full and flash mode operation:

- NEMA TS2 controllers and cabinet components

The complete BBS system including batteries shall fit inside and be compatible with a NEMA type traffic control cabinet of minimum size 26-inch wide X 40-inch high X 13-inch deep and maximum size 32-inch wide X 51-inch high X 18-inch deep, with minimum 3-inches in the front and minimum 1-inch air space on the top, back, and sides of a shelf mounted UPS.

C.5.4.4.4 Electrical Protections
The BBS shall be equipped to prevent a malfunction feedback to the cabinet or from feeding back to the utility service per UL 1778, Section 48 "Back-feed Protection Test". The upstream back-feed voltage from the BBS system shall be less than 1 volt AC.

C.5.4.4.5 Maintenance
The individual BBS parts shall be easily replaced and installed (complete turnkey system with all necessary hardware). The BBS shall not require any special tools for removal or installation.

C.5.4.4.6 Cabinet
Furnish a non-ground mounted, aluminum, outdoor rated, NEMA type 3R traffic control cabinet of minimum size 26-inch wide X 40-inch high X 13-inch deep and maximum size 32-inch wide X 51-inch high X 18-inch deep. The size of the cabinet shall be of sufficient size to provide ample space for housing all equipment specified herein, all equipment furnished with the Uninterruptible Power Supply (UPS) specification, and all batteries.

Provide a minimum clear space of 3-inches in the front of a shelf mounted UPS, and minimum 1-inch on both sides, back, and top of the UPS. Slope the top of the cabinet towards the door with a 2-inch drip lip over the door and cabinet front. All sheet metal parts shall be 0.125-inch thick aluminum of type 5052-H32. All seams shall be continuously welded.

Provide an access door on the front of the cabinet with a continuous hinge, door latch assembly with 3-point locking mechanism, #2 Corbin lock, dust cap, and two #2 keys. The door shall have a closed-cell neoprene gasket on all four edges. The continuous hinge shall be heavy gauge aluminum with ¼-inch diameter stainless steel hinge pin. Secure hinge with 1/4-inch X 20 TPI stainless steel carriage bolts and stainless steel nylon locking nuts. The 3-point locking system shall have ½-inch X ¼-inch X length required latch bars and nylon rollers. Door handle shall be a ¾-inch solid stainless steel inward-turning handle with provisions for padlocking. Provide a steel rod door holder. All hardware shall be stainless steel, unless otherwise specified.

Provide ventilation louvers on the front of the cabinet of sufficient open area to provide air flow for the cabinet fan. Provide a 1/2-inch air filter over all the louver area. Air filter shall slide into a channel and shall be easily removed and replaced.

Provide installed a minimum of three full width and depth, aluminum shelves sufficient to hold all equipment furnished with the Uninterruptible Power Supply specification, and all batteries. All shelves shall have neoprene (or similar material) pads. The shelves shall not be the swing out type. The shelf locations shall be adjustable to within six inches of the top of the cabinet and 12 inches from the bottom of the cabinet. The shelves shall be capable of supporting up to 180 pounds.

C.5.4.4.7 Cabinet Equipment

Provide and install a power distribution terminal block for wire connections, wire size up to #8AWG, from the traffic signal cabinet. Locate the block on one side of the UPS cabinet between 1 and 2 feet from the top of the cabinet.

Provide a generator connection outlet installed on one side of the cabinet placement shall not interfere with the installation or use of batteries, UPS, or any switches. The outlet shall be a Marinco 125/250 V 50A turn and pull or equivalent, back wired, surface mounted, twist lock receptacle with a watertight cover and meter seal tabs, or equal.

Ventilate the UPS cabinet by means of an installed 120 VAC, 60HZ, tube axial compact type fan. The fan's free delivery airflow shall be greater than 2.83 cubic meters per minute. The magnetic field of the fan motor shall not affect the performance of control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp, or have bearing failure within a 7-year duty cycle. The maximum noise level shall be less than 40 decibels. The fan unit shall be corrosion resistant. The fan shall be thermostatically controlled. Thermostat shall be set to manufacturer required settings. The fan shall be fused.

Provide installed and operational heating pads for the batteries. Heating pads shall be 120 volt, 70 watt, polyester, G30200X, P07141A2 D0452, PowerBack pads from Hi-Heat, Industries, Inc., Lewiston, MT, or equal. Provide a temperature sensor bonded to the pad, electrical power cord, and a thermal fuse in each power cord.

Provide a battery voltage balancer, battery cable for each battery, and interface cable of the size compatible with the battery string. Balancer shall be ALPHAGuard Charge Management SC, 48-volt, compatible with the battery string, or equal.

In all controller cabinets and auxiliary cabinets, the AC common, the logic ground, and the chassis ground shall be isolated from each other as detailed by NEMA Standard.

Each 120 VAC circuit that serves an inductive device, such as a fan motor or a mechanical relay, shall have a suppressor to protect the controller's solid state devices from excessive voltage surges. Such suppressors shall be in addition to the surge protector at the input power point.

C.5.4.4.8 Batteries

Furnish four batteries for each cabinet as recommended by the UPS supplier. Batteries shall be newly built and fully charged when delivered.

C.5.4.4.9 Equipment Installation

Install the furnished BBS, batteries, and battery equipment according to manufacturer’s requirements. Bolt the BBS cabinet firmly to the back or side of the traffic signal control cabinet as required by the design of each signal cabinet. Use a minimum of four bolts of the size recommended by the BBS cabinet manufacturer. Use fender washers on the inside of both cabinets. Use all stainless steel hardware.

Furnish and install from the electrical service to the BBS cabinet and back to the signal cabinet, the larger of 1) #10 AWG, 600 volt, electric wire, 2) the wire size recommended by the UPS manufacturer, 3) the largest size wire used in the signal cabinet for the power connections, or 4) the wire size required by WSEC. Install the wire through a 3/4-inch hole drilled between the cabinets and install two 3/4-inch bushings in the hole. Provide grounding, suppressors and lightning arrestors according to the WSEC requirements.

Program and/or enter configuration settings for the equipment and make the equipment fully operational.

C.5.4.4.10 Certification

Provide a written certification with the cabinet delivery that the equipment meets the requirements of the plans and specifications and will fully operate the traffic signal cabinet. The certification shall be on the contractor’s company letterhead, shall be addressed to both the City of Kaukauna and the construction contractor, if there is one, and shall be signed by a company officer authorized to legally obligate the company. Cabinet testing and quality control documents may accompany the certification.

C.5.4.4.11 Documentation

Submit detailed equipment layout drawings and inter-equipment wiring diagrams furnished under this specification to WisDOT and the City of Kaukauna for approval. Two sets of approved equipment layout drawings and inter-equipment wiring diagrams shall be contained in a heavy-duty clear plastic envelope mounted on the inside of the front door.

For the cabinet and cabinet equipment, at the time of the delivery, furnish two printed sets, and one .pdf file on a CD-ROM or flash drive, of cabinet installation, operations, and maintenance manuals per cabinet and an itemized price list for each type of equipment, and their replacement parts. The manuals shall as a minimum include the following information: a) table of contents, b) operating procedure, c) step-by-step maintenance and trouble-shooting information for the entire assembly, d) part numbers, and e) maintenance checklists. Also provide two prints and the .dgn or CADD file of the as-built cabinet design and layout.

For the installed equipment, at the time of the delivery, furnish two printed sets, and one .pdf file on a CD-ROM or flash drive, of equipment installation, operations, and maintenance manuals per cabinet and an itemized price list for each type of equipment, their sub-assemblies, and their replacement parts. The manuals shall as a minimum include the following information for each piece of equipment: a) table of contents, b) startup procedure, c) operating procedure, d) step by step maintenance and trouble-shooting information for the entire assembly, e) circuit wiring diagrams, f) pictorial diagrams of parts locations, g) part numbers, h) theory of operation, and i) maintenance checklists. The instructional manuals shall include an itemized parts list. The itemized parts list shall include the manufacturer's name and part numbers for all components (such as IC's, diodes, switches, relays, etc.) used in each piece of equipment. The list shall include cross-references to part numbers of other manufacturers who make the same replacement parts. Also provide the .dgn CAD files for the equipment layout drawings and inter-equipment wiring diagrams.

C.5.4.4.12 Warranty

Certify in writing at the time of delivery that the cabinet and all equipment meet the required specification and supply a complete catalog description.

Provide manufacturer’s three year factory-repair warranty for 100% parts and labor on the UPS and all switches. Turn over to the City of Kaukauna warranties and guarantees that are offered by the manufacturer as a customary trade practice. Name the City of Kaukauna as the obligee on all manufacturers’ warranties and guarantees.

Batteries shall be warranted by the manufacturer against failure for a minimum of five years. Failure is inability to hold a full charge for an extended period of time, or any defect that does not allow the battery to be functional for the purpose intended in the BBS, as determined by the City of Kaukauna.

The warranty shall provide for full repair or replacement, as determined by the City of Kaukauna, of the failed item or cabinet system, including removal and installation, at no cost to the City of Kaukauna, within 20 calendar days of notification by the City of Kaukauna.

Work by others in the cabinet to install the modems and autodialers will not void or alter the warranty in any way.

C.6 Documentation

C.6.1 Shop Drawings

For each cabinet order, submit two sets of 22X34-inch detailed printed shop/drawings of the control cabinet, equipment layout drawings, and wiring diagrams of all equipment installed in the controller cabinet to WisDOT and the City of Kaukauna for review and approval, a minimum of 60 days before the designated cabinet delivery date. Also provide all drawings as .dgn or .dwg files. Revise the files and drawings according to WisDOT or City of Kaukauna comments and resubmit, both printed and .dgn/.dwg files. If cabinet designs change within an order with the permission of the City of Kaukauna, resubmit all drawings and files for review, comment, and approval.

C.6.2 Manuals

At the time of the cabinet delivery, furnish the following:

- One set of installation, operations, and maintenance manuals per cabinet for each type of equipment and their replacement parts. The manuals shall as a minimum include the following information: a) table of contents, b) operating procedure, c) step-by-step maintenance and trouble-shooting information for the entire assembly, d) part numbers, and e) maintenance checklists.
- Two sets of cabinet wiring diagrams per cabinet.

C.7 Cabinet Delivery

Deliver the fully wired and equipped cabinets the project site and securely store the materials if not immediately installing the equipment. Contact the construction leader a minimum of one 24-hour business day ahead of the desired delivery date to confirm the site is ready for installation.

C.8 Warranty

The contractor shall certify that the equipment meets the required specification and shall supply a complete catalog description.

Turn over to the City of Kaukauna warranties and guarantees that are offered by the manufacturer as a customary trade practice. Name the City of Kaukauna as the obligee on all manufacturers' warranties and guarantees.

D Measurement

The department will measure Furnish and Install Traffic Signal Cabinet Controller And Battery Backup System as a lump sum complete unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.03	Furnish And Install Traffic Signal Cabinet Controller And Battery Backup System	LS

Payment is full compensation for furnishing and installing the signal controller and conflict monitor together with cabinet, all required control units, battery backup system, software installation, all additional harnesses for preemption, switches for flashing operation, and fittings as are necessary to assure that the controller will perform the said functions.

70. Furnish and Install Emergency Vehicle Preemption System, Item SPV.0105.04.

A Description

This special provision describes furnishing and installing an Emergency Vehicle Preemption (EVP) System at the location shown in the plans and as provided hereafter.

B Materials

Furnish an EVP System including a Tomar Model 4080-4 and Tomar Model 4090-1-SD detectors. Furnish any and all incidental items necessary for installation of a functioning EVP system not included with the above items except for EVP Detector Wire which is paid for under the standard bid item.

C Construction

Mount the detectors on the trombone arms and signal poles as shown on the plans.

In the event, at installation, a noticeable obstruction is present in line with the detector, advise the engineer before installation.

Unless otherwise directed by the engineer, install the detector shield tube with the drain hole at the bottom.

Install the cable from the traffic signal control cabinet to the EVP receivers. Include a six foot loop of cable in the pull box nearest the mounting pole. There shall be no detector cable splices between the EVP receiver and the controller terminations.

Mark each lead appropriately as to which roadway approach it is associated.

The EVP as specified and shown in the plans shall be complete in place, tested, and in full operation.

D Measurement
The department will measure Furnish and Install EVP System as a single lump sum unit of work, completed according to the contract and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.04	Furnish and Install Emergency Vehicle Preemption System	EACH

Payment is full compensation for furnishing and installing the EVP system, including detectors, cabling, in-cabinet equipment, and mounting brackets; testing and setting up the system including any required coordination with the City of Kaukauna.

71. Construction Staking Miscellaneous City Utilities, Item SPV.0105.09.

A Description
This special provision describes construction staking for the City of Kaukauna sanitary sewer and laterals.

B (Vacant)

C Construction
Perform the work according to standard spec 650, and as specified below.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations for the construction of sanitary sewer, sanitary laterals and sanitary manholes. Locate stakes to within 0.02 feet horizontally and establish the elevations to within 0.01 feet vertically.

Determine that the proposed elevations shown on the plan at match points to existing city utilities match field conditions and provide this information to the engineer before ordering manholes.

D Measurement
The department will measure Construction Staking Miscellaneous City Utilities as a single lump sum unit for combined work, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.09	Construction Staking Miscellaneous City Utilities	LS

Payment is full compensation for locating and setting all construction stakes; and for relocating and resetting damaged or missing construction stakes. The department will not make final payment for any staking item until the contractor submits all survey notes used to establish the required lines and grades to the engineer within 21 days of completing this work. The department will deduct from payments due the contractor for the additional costs specified in standard spec. 105.6.

72. Water for Seeded Areas, Item SPV.0120.01.

A Description

This special provision describes furnishing, hauling and applying water to seeded areas as directed by the engineer, and as hereinafter provided.

B Materials

When watering seeded areas, use clean water, free of impurities or substances that might injure the seed.

C Construction

If rainfall is not sufficient, keep all seeded areas thoroughly moist by watering or sprinkling. Water for 30 days after seed placement or as the engineer directs. Apply water in a manner to preclude washing or erosion. The topsoil shall not be left un-watered for more than 3 days during this 30-day period unless the engineer determines that it is excessively wet and does not require watering. The equivalent of one inch of rainfall per week shall be considered the minimum.

D Measurement

The department will measure Water for Seeded Areas by volume by the thousand gallon units (MGAL), acceptably completed. The department will determine volume by engineer-approved meters or from tanks of known capacity.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0120.01	Water for Seeded Areas	MGAL

Payment is full compensation for furnishing, hauling, and applying water.
(NER12-1010)

73. Wall Modular Block Gravity R-44-24, Item SPV.0165.01; Wall Modular Block Gravity R-44-25, Item SPV.0165.02.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on

the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Modular Block Gravity Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the facing units shall be furnished to the engineer at least 14 days prior to the project delivery.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section in Room 601 of the Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction

(standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer.

Walls shall be designed for a minimum live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as shown on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratio (CDR) for sliding, eccentricity, and bearing checks is provided by the department and are provided on the wall plans.

The design of the wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. Internal stability shall also be considered at each block level. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The width of the modular block from front face to back face of the wall shall be included in the design computations and shown on the wall shop drawings. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Wall facing units shall be designed according to AASHTO LRFD 11.10.2.3.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a base aggregate leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on base aggregate leveling pads. The bottom row of blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad.

The base aggregate leveling pads shall be as wide as the proposed blocks plus 12 inches, and the modular blocks shall be centered on the leveling pad. The minimum thickness of the leveling pad shall be 12 inches after compaction. The leveling pad shall be made from base aggregate dense 1 ¼-inch in conformance with standard spec 305.

B.3 Wall System Components
Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Wall Facing
Wall facing units shall consist of precast modular concrete blocks. Furnish concrete produced by a dry-cast or wet-cast process. Concrete for all blocks shall not contain less than 565 pounds of cementitious materials per cubic yard. The contractor may use cement conforming to standard spec. 501.2.1 or may substitute for portland cement at the time of batching conforming to standard spec. 501.2.6 for fly, standard spec 501.2.7 for slag, or stamdard spec 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30% of the total cementitious content by weight.

Dry-cast concrete blocks shall be manufactured according to ASTM C1372 and this specification.

All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are broken, have cracks wider than 0.02” and longer than 25% of the nominal height of the unit, chips larger than 1”, have excessive efflorescence, or are otherwise deemed unacceptable by the engineer, shall not be used within the wall. A single block type and style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan.

The top course of facing units shall be as noted on the plans, either;

- Solid precast concrete unit designed to be compatible with the remainder of the wall. The finishing course shall be bonded to the underlying facing units with a durable, high strength, flexible adhesive compound compatible with the block material.
- A formed cast-in-place concrete cap. A cap of this type shall have texture, color, and appearance, as noted on the plans. The vertical dimension of the cap shall not be less than 3 1/2 inches. Expansion joints shall be placed in the cap to correspond with each 24 inch change in vertical wall height and at maximum spacing of 10 feet. Use Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Block dimensions may vary no more than ±1/8 inch from the standard values published by the manufacturer. Blocks must have a minimum depth (front face to back face) of 8 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. The minimum allowed thickness of any other portions of the block is 1¾ inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of holding the wall in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

B.3.2 Material Testing

Provide independent quality verification testing of project materials according to the following requirements:

Test	Method	Requirement	
		Dry-cast	Wet-cast
Compressive Strength (psi)	ASTM C140	5000 min.	4000 min.
Air Content (%)	AASHTO T152	N/A	6.0 +/-1.5
Water Absorption (%)	ASTM C140	6 max.[3]	N/A
Freeze-Thaw Loss (%) 40 cycles, 5 of 5 samples 50 cycles, 4 of 5 samples	ASTM C1262[1]	 1.0 max.[2][3] 1.5 max.[2][3]	N/A

[1] Test shall be run using a 3% saline solution and blocks greater than 45 days old.

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

[3] The independent testing laboratory shall control and conduct all sampling and testing. Prior to sampling, the manufacturer's representative shall identify materials by lot. Five blocks per lot shall be randomly selected for testing. Solid blocks used as a finishing or top course shall not be selected. The selected blocks shall remain under the control of the person who conducted the sampling until shipped or delivered to the testing laboratory. All pallets of blocks within a lot shall be strapped or wrapped to secure the contents and tagged or marked for identification. The engineer will reject any pallet of blocks delivered to the project without intact security measures. At no expense to the department, the contractor shall remove all rejected blocks from the project. If a random sample of five blocks of any lot tested by the department fails to meet any of the above testing requirements, the entire lot will be considered non-conforming.

The contractor and fabricator shall coordinate with the independent testing agency to ensure that strength and air content samples can be taken appropriately during manufacturing. At the time of delivery of materials, furnish the engineer a certified report of test from an AASHTO-registered or ASTM-accredited independent testing laboratory for each lot.

The certified test report shall include the following:

- Project ID
- Production process used (dry-cast or wet-cast)
- Name and location of testing facility
- Name of sampling technician
- Lot number and lot size

Testing of project materials shall be completed not more than 18 months prior to delivery. Independent testing frequency shall not exceed 5000 blocks for dry-cast blocks and the lesser of 150 CY or 1 day's production for wet-cast blocks. The certified test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification

information. Block lots that do not meet the requirements of this specification or blocks without supporting certified test reports will be rejected and shall be removed from the project at no expense to the department.

Nonconforming materials will be subject to evaluation according to standard spec 106.5.

B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate Size No. 1 as given in standard spec 501.2.5.4. All backfill placed within a zone from the top of the leveling pad to the top of the final layer of wall facing units and within 1 foot behind the back face of the wall shall be Wall Backfill, Type A. This includes all material used to fill openings in the wall facing units.

A layer of Geotextile Type "DF" (Schedule B) shall be placed vertically between the backfill and the Type A backfill. The geotextile shall extend from the top of the leveling pad to 6 inches below the surface of the retained soil. The geotextile shall then wrap across the top of the Type A backfill to the back of block wall facing.

Backfill placed between retained soil and Type A backfill shall comply with the requirements for Granular Backfill Grade 1 as contained in standard spec 209.2.2. The contractor may substitute Type A Backfill for Granular Backfill Grade 1.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the wall and the leveling pad shall be according to standard spec 206. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction. Backfilling shall closely follow erection of each course of wall facing units.

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

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

C.2 Compaction
Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the modular blocks.

C.3 Wall Components
Erect wall facing units and other associated elements according to the wall manufacturer's construction guide and to the lines, elevations, batter, and tolerances as shown on the plans. Center the initial layer of facing units on the leveling pad; then level them and properly align them. Fill formed voids or openings in the facing units with wall backfill, Type A. Remove all debris on the top of each layer of facing units, before placing the next layer of facing units.

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

C.4 Geotechnical Information
Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

D Measurement
The department will measure Wall Modular Block Gravity by the square foot acceptably completed, measured at the front face of wall as defined by the pay limits the contract plans show. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Wall Modular Block Gravity R-44-24	SF
SPV.0165.02	Wall Modular Block Gravity R-44-25	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings and leveling pad; constructing the retaining system including drainage system; providing backfill, backfilling, compacting, and performing compaction testing.

Payment limit for furnishing all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes.

Parapets, railings, and other items above the wall cap or coping will be paid for separately. Vehicle barrier and its support will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

74. Concrete Sidewalk 8-Inch, Item SPV.0165.03.

A Description
Work under this item shall be according to standard spec 602.1.

B Materials
Conform to standard spec 602.2.

C Construction
Conform to standard spec 602.3.

D Measurement
Conform to standard spec 602.4.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.03	Concrete Sidewalk 8-Inch	SF

The department will adjust pay for crack repairs on concrete built under standard spec 602 as specified in standard spec 416.5.2 for ancillary concrete.

Conform to standard spec 602.5.2.

75. Salvage Brick Pavers, Item SPV.0165.04.

A Description
This special provision describes salvaging and reinstalling brick pavers.

B Materials
Use existing materials, which are located between the existing sidewalk and existing curb and gutter.

C Construction
Remove the existing brick pavers only as necessary for driveway and sidewalk construction on Maloney Road at Station 39+10 left. Replace the brick pavers upon completion of driveway and sidewalk construction at the original location or as directed by the engineer.

D Measurement
The department will measure Salvage Brick Pavers by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.04	Salvage Brick Pavers	SF

Payment is full compensation for removing brick pavers from the existing location; storing the pavers; preparing the bed; and for replacing the brick pavers at the original location.

76. Wall Modular Block Mechanically Stabilized Earth R-44-26, Item SPV.0165.05.

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

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials
B.1 Proprietary Wall Systems
The supplied wall system must be from the department's approved list of Modular Block Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The location of the plant manufacturing the facing units shall be furnished to the engineer at least 14 days prior to the project delivery.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section in Room 601 of the Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway

traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratio (CDR) for sliding, eccentricity, and bearing checks is provided by the department and are provided on the wall plans.

The design of the wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and wall facing-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Wall facing units shall be designed according to AASHTO LRFD 11.10.2.3.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 6.0 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be two times the block depth (front face to back face) or 32 inches, whichever is less. The first (bottom) layer of reinforcement shall be placed no further than 12 inches above the top of the leveling pad or the height of the block, but at least one block height above the leveling pad. The last (top) layer of soil reinforcement shall be no further than 21 inches below the top of the uppermost block.

All soil reinforcement required for the reinforced soil zone shall be connected to the wall facing.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3” shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a concrete leveling pad. The bottom row of blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad.

Concrete leveling pads shall be as wide as the proposed blocks plus six inches, with six inches of the leveling pad extending beyond the front face of the blocks. The minimum thickness of the leveling pad shall be 6-inches.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Wall Facing

Wall facing units shall consist of precast modular concrete blocks. Furnish concrete produced by a dry-cast or wet-cast process. Concrete for all blocks shall not contain less than 565 pounds of cementitious materials per cubic yard. The contractor may use cement conforming to standard spec. 501.2.1 or may substitute for portland cement at the time of batching conforming to standard spec. 501.2.6 for fly, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30% of the total cementitious content by weight.

Dry-cast concrete blocks shall be manufactured according to ASTM C1372 and this specification.

All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are broken, have cracks wider than 0.02” and longer than 25% of the nominal height of the unit, chips larger than 1”, have excessive efflorescence, or are otherwise deemed unacceptable by the engineer, shall not be used within the wall. A single block type and style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan.

The top course of facing units shall be as noted on the plans, either;

- Solid precast concrete unit designed to be compatible with the remainder of the wall. The finishing course shall be bonded to the underlying facing units with a durable, high strength, flexible adhesive compound compatible with the block material.
- A formed cast-in-place concrete cap. A cap of this type shall have texture, color, and appearance, as noted on the plans. The vertical dimension of the cap shall not be less than 3 1/2 inches. Expansion joints shall be placed in the cap to correspond with each 24 inch change in vertical wall height and at maximum spacing of 10 feet. Use Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501

as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Block dimensions may vary no more than ±1/8 inch from the standard values published by the manufacturer. Blocks must have a minimum depth (front face to back face) of 8 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. The minimum allowed thickness of any other portions of the block is 1¾ inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of holding the wall in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

For concrete leveling pad, use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

B.3.2 Material Testing

Provide independent quality verification testing of project materials according to the following requirements:

Test	Method	Requirement	
		Dry-cast	**Wet-cast**
Compressive Strength (psi)	ASTM C140	5000 min.	4000 min.
Air Content (%)	AASHTO T152	N/A	6.0 +/-1.5
Water Absorption (%)	ASTM C140	6 max.[3]	N/A
Freeze-Thaw Loss (%) 40 cycles, 5 of 5 samples 50 cycles, 4 of 5 samples	ASTM C1262[1]	1.0 max.[2][3] 1.5 max.[2][3]	N/A

[1] Test shall be run using a 3% saline solution and blocks greater than 45 days old.

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

[3] The independent testing laboratory shall control and conduct all sampling and testing. Prior to sampling, the manufacturer's representative shall identify materials by lot. Five blocks per lot shall be randomly selected for testing. Solid blocks used as a finishing or top course shall not be selected. The selected blocks shall remain under the control of the person who conducted the sampling until shipped or delivered to the testing laboratory. All pallets of blocks within a lot shall be strapped or wrapped to secure the contents and tagged or marked for identification. The engineer will reject any pallet of blocks delivered to the project without intact security measures. At no expense to the department, the contractor shall remove all rejected blocks from the project. If a random sample of five blocks of any lot tested by the department fails to meet any of the above testing requirements, the entire lot will be considered non-conforming.

The contractor and fabricator shall coordinate with the independent testing agency to ensure that strength and air content samples can be taken appropriately during manufacturing. At the time of delivery of materials, furnish the engineer a certified report of test from an AASHTO-registered or ASTM-accredited independent testing laboratory for each lot.

The certified test report shall include the following:

- Project ID
- Production process used (dry-cast or wet-cast)
- Name and location of testing facility
- Name of sampling technician
- Lot number and lot size

Testing of project materials shall be completed not more than 18 months prior to delivery. Independent testing frequency shall not exceed 5000 blocks for dry-cast blocks and the lesser of 150 CY or 1 day's production for wet-cast blocks. The certified test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification information. Block lots that do not meet the requirements of this specification or blocks without supporting certified test reports will be rejected and shall be removed from the project at no expense to the department.

Nonconforming materials will be subject to evaluation according to standard spec 106.5.

B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

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

Wall Backfill, Type B, shall be placed in a zone extending horizontally from 1 foot behind the back face of the wall to 1 foot beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material Type A and Type B shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	4.5-9.0
Sulfate content [1]	AASHTO T-290	200 ppm max.
Chloride content [1]	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content [1]	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236[2]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

[1] Requirement does not apply to walls with non-metallic reinforcement.

[2] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.4 Soil Reinforcement

B.3.4.1 Geogrids

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength (T_{al}) and nominal long-term connection strength, Talc as discussed below.

Nominal Long-Term Design Strength (T_{al})

The wall supplier shall supply the nominal long-term design strength (T_{al}) used in the design for each reinforcement layer and shall be determined by dividing the Ultimate Tensile Strength (T_{ult}) by the factors RF_{ID}, RF_{CR}, RF_D.

Hence,

$$T_{al} = \frac{T_{ult}}{RF_{ID} \, x RF_{CR} \, x RF_{D}}$$

where:

T_{ult} = Ultimate tensile strength of the reinforcement determined from wide width tensile tests (ASTM D6637) for geogrids based on the minimum average roll value (MARV) for the product.

RF_{ID} = Strength reduction factor to account for installation damage to the reinforcement. In no case shall RF_{ID} be less than 1.1.

RF_{CR} = Strength reduction factor to prevent long-term creep rupture of the reinforcement. In no case shall RF_{CR} be less than 1.2.

RF_D = Strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation. In no case shall RF_D be less than 1.1.

Values for RF_{ID}, RF_{CR}, and RF_D shall be determined from product specific test results. Guidelines for determining RF_{ID}, RF_{CR}, and RF_D from product specific data are provided in FHWA Publication No. FHWA-NHI-10-024 and FHWA–NHI-10-025 “Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes”.

Nominal Long-term Connection Strength T_{ac}

The nominal long term connection strength, T_{ac}, shall be based on laboratory geogrid connection tests between wall facing and geogrids. T_{ac} shall be as given below

$$T_{ac} = \frac{T_{ult} * CR_{cr}}{RF_D}$$

where:

T_{ac} = Nominal long-term reinforcement facing connection strength per unit reinforcement width at a specified confining pressure.

T_{ult} = Ultimate tensile strength of the reinforcement for geogrids defined as the minimum average roll value (MARV) for the product.

CR_{cr} = Long term connection strength reduction factor to account for reduced ultimate strength resulting from connection.

RF_D = Strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation.

T_{ac} shall be developed from the tests conducted by an independent laboratory on the same facing blocks and geogrids as proposed for the wall and shall cover a range of overburden pressures comparable to those anticipated in the proposed wall. The connection strength reduction factor CR_{cr} shall be determined according to long-term connection test as described in Appendix B of FHWA Publication No. FHWA-NHI 10-025 "Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes". CR_{cr} may also be obtained from the short term connection test meeting the requirements of NCMA test method SRWU-1 in Simac et al 1993 or ASTM D4884.

The contractor shall provide a manufacturer's certificate that the Tult (MARV) of the supplied geogrid has been determined according to ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations according to AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100% of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

B.3.4.2 Galvanized Metal Reinforcement

In lieu of polymeric geogrid earth reinforcement, galvanized metal reinforcement may be used. Design and materials shall be according to AASHTO LRFD 11.10.6.4.2. The design life of steel soil reinforcements shall also comply with AASHTO LRFD. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction. Backfilling shall closely follow erection of each course of wall facing units.

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

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

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

C.2 Compaction

Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Compact all backfill Type B as specified in standard spec 207.3.6. Compact the backfill Type B to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the modular blocks.

A minimum of 6 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

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

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

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

C.3.2 Soil Reinforcement

C.3.2.1 Geogrid Layers

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

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

C.3.2.2 Steel Layers

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

C.4 Quality Management Program

C.4.1 Quality Control Plan

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

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician Ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

C.4.3 Equipment

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

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

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

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

(3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and

IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

C.4.6.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

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

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

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

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

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.

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

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

C.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

D Measurement

The department will measure Wall Modular Block Mechanically Stabilized Earth by the square foot, acceptably completed, measured at the front face of wall as defined by the pay limits the contract plans show. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.05	Wall Modular Block Mechanically Stabilized Earth R-44-26	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings and leveling pad; constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

Payment limit for furnishing all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes. Parapets, railings, and other items above the wall cap or coping will be paid for separately. Vehicle barrier and its support will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.
SPV.0165.05 (20170223)

77. Concrete Pavement SHES 8-Inch, Item SPV.0180.01; Concrete Pavement SHES 9-Inch, Item SPV.0180.02.

A Description

This special provision describes constructing concrete pavement using special high early strength concrete at the locations shown on the plans, or as directed by the engineer.

B Materials

Furnish materials for the work conforming to standard spec 416.2.1, 416.2.5, and the pertinent requirements of standard spec 415.2.

C Construction

Construct according to the requirements of standard spec 415.3.

D Measurement

The department will measure Concrete Pavement SHES 8-Inch and Concrete Pavement SHES 9-Inch according to standard spec 415.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Concrete Pavement SHES 8-Inch.	SY
SPV.0180.02	Concrete Pavement SHES 9-Inch	SY

Payment is full compensation according to standard spec 415.5.

78. Concrete Driveway SHES 8-Inch, Item SPV.0180.03.

A Description
This special provision describes constructing concrete driveway using special high early strength concrete at the locations shown on the plans, or as directed by the engineer.

B Materials
Furnish materials for the work conforming to standard spec 416.2.1, 416.2.5, and the other pertinent requirements of standard spec 416.2.

C Construction
Construct according to the requirements of standard spec 416.3.

D Measurement
The department will measure Concrete Driveway SHES 8-Inch according to standard spec 416.4.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.03	Concrete Driveway SHES 8-Inch.	SY

Payment is full compensation according to standard spec 416.5.

79. Concrete Joint Sealing, Item SPV.0180.04.

A Description
This special provision describes furnishing and installing joint sealer for concrete pavement as shown on the plans, and as hereinafter provided.

B Materials
Hot-poured elastic type joint sealer shall meet the requirements of the Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements Concrete Joint Sealer, Hot-Poured Elastic Type, ASTM Designation: D6690.

C Construction
Place joint sealer as shown on the plans and according to the manufacturer's instructions. All longitudinal, transverse, and construction joints shall be sealed prior to allowing any traffic on the pavement.

D Measurement
The department will measure Concrete Joint Sealing by the square yard of pavement sealed and acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.04	Concrete Joint Sealing	SY

Payment is full compensation for providing all materials and placing materials. (NER11-0127)

80. Shredded Hardwood Bark Mulch, Item SPV.0180.05.

A Description
This special provision describes furnishing and installing Shredded Hardwood Bark Mulch at the locations shown on the plans and according to the requirements of standard spec 632, the plans, and as hereinafter provided.

B Materials
Provide Shredded Hardwood Bark Mulch, as shown on plan and according to standard spec 632.2.6.

Provide Shredded Hardwood Bark Mulch for mulch rings around the base of plant material that is finely shredded hardwood bark mulch and the product of a mechanical chipper, hammermill, or tub grinder. Ensure the material is fibrous and uniformly dark brown in color, free of large wood chunks, and substantially free of mold, dirt, sawdust, and foreign material. Ensure that no portion of the material is in an advanced state of decomposition. Ensure that the material does not contain chipped up manufactured boards or chemically treated wood, including but not limited to wafer board, particle board, and chromated copper arsenate (CCA) or penta-treated wood. Ensure that the material does not contain no bark of the black walnut tree. Ensure that the material, when air dried, all passes a 4-inch screen and no more than 20 percent by mass of the material passes a 0.10-inch sieve. Ensure that unattached bark or greenleaf composition, either singly or combined, does not exceed 20 percent each by mass. The maximum length of individual pieces cannot exceed 4 inches.

C Construction
Install mulch according to standard spec 632.3.9 to a depth of 3 inches over entire area of bed.

Do not use any weed barrier fabric in bark mulch areas.

Place the hardwood bark mulch in such a manner as to not damage plants already in place.

D Measurement
The department will measure Shredded Hardwood Bark Mulch by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.05	Shredded Hardwood Bark Mulch	SY

Payment is full compensation for furnishing and installing all materials.

81. Management of Petroleum-Contaminated Soil and Groundwater, Item SPV.0195.01.

A Description

A.1 General

This special provision describes excavating, segregating, loading, hauling, treatment, and disposing of petroleum-contaminated soil at a DNR approved bioremediation and disposal facility. The closest DNR approved disposal facility is:

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

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

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

This special provision also describes pumping and disposing of petroleum-contaminated groundwater (if dewatering is necessary) to the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District.

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 100-299 of the Wisconsin Administrative Code, as supplemented herein. Perform all work necessary to control, handle, and dispose of groundwater and surface water, and all other water that may be encountered within contaminated areas, as required for performance of the work.

A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations

The department completed testing for soil contamination for locations within this project where excavation is required.

Petroleum-contaminated soil and groundwater (if dewatering is necessary) is potentially present at the following location:

1. Station 311'PL'+00 to Station 312'PL"+50 from reference line to limits on LT.

Contaminated soils and/or groundwater and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils and/or groundwater and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer and the environmental consultant. Contaminated soil at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name:	Daniel Haak
Address:	TRC Environmental Corporation 708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
e-mail:	dhaak@trcsolutions.com

A.3 Coordination

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

Consultant:	TRC Environmental Corporation
Contact:	Mr. Dan Haak
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	dhaak@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the disposal facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the disposal facility.

5. Identifying contaminated groundwater to be pumped for treatment and disposal (if dewatering is necessary).
6. Assisting the contractor with laboratory analytical results as necessary for disposal of contaminated water from the City of Kaukauna. Contractor shall be responsible for coordinating disposal with the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved disposal facility that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the disposal facility.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil or pump contaminated groundwater offsite without prior approval from the environmental consultant.

A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells, including lost or improperly abandoned wells, may be present within the construction limits. Notify the environmental consultant when groundwater monitoring wells are encountered. Protect all groundwater monitoring wells to maintain their integrity. If required by the environmental consultant, adjust wells that do not conflict with utilities, structures, curb and gutter, etc. to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant, or for wells that require abandonment, the abandonment or adjustment of the wells by others. The environmental consultant will provide maps indicating the locations of all known monitoring wells, if requested by the contractor.

Coordinate with the environmental consultant to ensure that the environmental consultant is present to abandon and/or document the location of the groundwater monitoring wells during excavation activities.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence

letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Kathie Van Price with the department, at (920) 492-7175.

A.6 Health and Safety Requirements
Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with PVOCs. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of contaminated soil at the disposal facility is subject to the facility's safety policies, which include as a minimum:

1. No smoking is allowed on-site.
2. Maximum speed limit of 15 mph on access roads and 5 mph while in active area.
3. All persons entering the active area must wear the following personal protective equipment: hard hats, high visibility clothing, steel toed work boots, safety glasses, and seat belts.
4. Minimum requirement for spacing is as follows:
    a. A minimum 15 foot Safety Zone is required between landfill equipment and all personnel at all times.
    b. Do not back up directly behind the compactor or dozer.
    c. Trucks must yield the right-of-way to landfill equipment.
    d. 15 feet required between trucks.
5. Only the driver can exit the truck and must stay within 4 feet of the truck. Use of Spotter is prohibited. Helper (if any), must remain in vehicle while unloading.
6. Tailgates of all vehicles may only be opened while in the active area and must be closed prior to exiting the active area.
7. Cleaning out vehicles must be done in designated area, not in the active area. Vehicles must be properly locked out / tagged out according to OSHA during the clean out process.
8. No scavenging is allowed.
9. Horseplay is prohibited.

Violation of the landfill's safety policy will result a verbal or written warning explaining this policy and may result in the loss of dumping privileges.

Immediately report all accidents and injuries at the disposal facility to landfill management.

B (Vacant)

C Construction
Supplement standard spec 205.3 with the following:

The environmental consultant will periodically examine excavated soil during excavations in the areas of known soil contamination within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal or can be beneficially re-used on-site. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site treatment and disposal at the WDNR-licensed disposal facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material according to NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending

excavation in those areas where such soil is encountered until such time as characterization is completed.

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

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer and the Environmental Consultant.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas.

Contaminated groundwater generated from dewatering activities within the contaminated areas may exceed the surface water discharge limits for PVOCs specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

The City of Kaukauna/Heart of the Valley Metropolitan Sewerage District has granted permission to discharge contaminated water generated during dewatering into the sanitary sewer for disposal/treatment at the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District provided the following conditions are met:

- Notify John Johnson, City of Kaukauna/Heart of the Valley Metropolitan Sewerage District Supervisor at (920)766-5731 (johnjohnson@hvmsd.org), prior to discharge of contaminated groundwater to the sanitary sewer. Do not discharge into the sanitary sewer without prior approval from the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District. Discharge location(s) shall be discussed and approved by the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District. The City of Kaukauna/Heart of the Valley Metropolitan Sewerage District supervisor or agent thereof can order a stop to discharges if the discharge is causing treatment problems at the wastewater treatment plant or in the collection system.
- Any discharge shall meet all conditions of the most current City of Kaukauna/Heart of the Valley Metropolitan Sewerage District Sewer Use Ordinance.
- Do not discharge grit (such as sand, sediment, detritus, etc.) to the sanitary sewer during dewatering operations. Furnish, install, and maintain a sediment control device (e.g. box, bag) for use prior to discharging water.

- Do not discharge any petroleum free product to the sanitary sewer under any circumstances.
- The discharge concentrations shall meet the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District requirements, and shall be at a minimum, at the point of discharge:

(2) Total petroleum volatile organic compounds (PVOCs) <1,000 µg/L and the limit for benzene is <0.5 µg/L

- PVOC compounds include benzene, ethylbenzene, methyl-tert-butyl-ether, toluene, xylenes, and trimethylbenzenes.
- Document compliance with the City of Kaukauna/Heart of the Valley Metropolitan Sewerage District discharge requirements, including water quality sampling and analysis. Contractor shall test water generated during dewatering, and store and analyze samples prior to discharge to the sewer, and provide copies of such documentation to the engineer.
- All water may be trucked to the wastewater treatment plant in lieu of discharge to the sanitary sewer at the contractor's option and at the contractor's cost.

The Heart of the Valley Metropolitan Sewerage District may impose a sanitary sewer use fee and flow restrictions.

Notify the environmental consultant prior to pumping contaminated groundwater.

Discharging contaminated groundwater to any location other than that approved and provided by the environmental consultant, is at the contractor's cost. If the contractor chooses alternate discharge, at the contractor's cost, obtain DNR concurrence on any dewatering plans, and provide and operate any and all treatment and discharge equipment required.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming, ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statues, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Management of Petroleum-Contaminated Soil and Groundwater in tons of contaminated soil accepted by the disposal facility as documented by weight tickets generated by the disposal facility, 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.0195.01	Management of Petroleum-Contaminated Soil and Groundwater	TON

Payment is full compensation for excavating, segregating, loading, hauling, treatment, and disposal of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; dewatering of soils prior to transport, if necessary.

82. Backfill Railroad Special, Item SPV.0195.02.

A Description

This special provision describes furnishing and installing backfill for storm sewer removal and installation within the railroad zone of influence. The zone of influence shall extend 20’ to either side of the railroad track centerline.

B Materials

Furnish virgin material meeting the gradation requirements for 1 ¼-inch dense graded base course according to standard spec 305.2.2.1 for the foundation and trench backfill. Do not use material classified under standard spec 301.2.4.3 as concrete, reclaimed asphalt, reprocessed material or blended material.

C Construction

C.1 General

When performing work in the area of the railroad track, comply with the requirements of standard spec 107.17 and as modified in Article 7 of these special provisions and as directed by the engineer.

C.2. Foundation and Trench Backfill

Place foundation and trench backfill in layers not more than 6 inches thick after compaction. Compact the entire length of each layer to 95% of the material target density. Ensure that adequate moisture is present during placement and compaction operations to prevent segregation and to help achieve compaction. The material target density will be identified using the maximum dry density as determined by AASHTO T-180, Method D, with correction for coarse particles as determined by AASHTO T224; modified to require determination of Bulk Specific Gravity (G_m) in accordance with AASHTO T 85, Bulk Specific Gravities determined in accordance with standard spec 106.3.4.2.2 for aggregate source approval may be utilized

Base aggregate dense 1 1/4-inch will be accepted for compaction on a target density lot basis.

C.3 Quality Management Program

C.3.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer no later than 10 business days before placement of steel casing pipe. Do not place any dense graded base before the engineer reviews and accepts the plan. Construct the project as the plan provides.

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.

C.3.2 Personnel

(1) Perform the quality control sampling, testing, and documentation required under this provision using technicians certified by the Department's Highway Technician Certification Program (HTCP). Have a HTCP Nuclear Density Technician I, or ACT certified technician, perform field density and field moisture content testing.

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

C.3.3 Equipment

(1) 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.

(2) Furnish nuclear gauges from the department's approved product list at:
http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm

(3) Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

(4) For all target density methods; conform to ASTM D 6938 and CMM 8.15 for wet density testing and gauge monitoring methods.

(5) For the specified target density method compute dry densities for dense graded base, according to ASTM D 6938.

(6) Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Backscatter may be used only if the material being tested cannot reliably maintain an undistorted Direct Transmission test hole. Direct transmission tests must be performed at the greatest possible probe depth of 2 inches, 4 inches, or 6 inches; not to exceed the depth of the compacted layer being tested. Perform each test for 4 minutes of nuclear gauge count time.

C.3.4 Contractor Testing

(1) Perform compaction testing on the dense graded base material. Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians as required in C.3.2. Conform to CMM 8.15 for testing and gauge monitoring methods.

(2) Select test sites randomly using ASTM Method D3665. Do not test less than 1 ½ feet from the unsupported edge of the dense graded base layer.

C.3.4.1 Contractor Required Quality Control (QC) Testing

(1) Conduct testing at a minimum frequency of one test per lot. A lot will consist of each layer with a minimum lift thickness of 2", of base aggregate dense 1 1/4-inch material placed; regardless of location of placement. Each lot of in-place, 1 1/4-inch base aggregate dense material will be accepted for compaction when the lot field density meets the required minimum 95.0% of target density, or for lots not achieving 95.0% of target density in accordance with C.3.6.

(2) Notify the engineer, if a lot field density test falls below the required minimum value. Document and perform corrective action in accordance with C.3.6. Deliver documentation of all compaction testing results to the engineer at the time of testing.

C.3.4.1.1 Target Density Determination Maximum Dry Density Methods

(1) Perform one gradation and 5-point Proctor test before placement of 1 1/4-inch dense graded base.

(2) Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling

(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.

C.3.4.2 Optional Contractor Assurance (CA) Testing

(1) CA Testing is optional and is conducted to further validate QC testing. The contractor may submit recorded CA data to provide additional information for the following:
1. Process control decisions
2. Troubleshooting possible sampling, splitting, or equipment problems.
3. Limiting liability and/or corrective action limits as a result of QV or QC testing. These provisions do not supersede the department's rights under 107.16

(2) CA testing used to limit liability and/or corrective action limits must conform to all the requirements of required contractor QC testing, with the exclusion of a required test frequency.

C.3.5 Department Testing

C.3.5.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

C.3.5.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required gradation, density and proctor contractor tests.

(3) The department will locate gradation, proctor and nuclear density test samples, at locations independent of the contractor's QC work, collecting one QV sample. The department will split each QV sample, test half for QV, and retain the remaining half for 7 calendar days.

(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 this special provision, the department will take no further action. If QV test results are nonconforming, take corrective actions in

accordance with C.3.6 until the requirements of this special provision are met. Differing QC and QV nuclear density values of more than 2.0 pcf will be investigated and resolved.

C.3.5.3 Independent Assurance (IA)

(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. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.3.5.4.

C.3.5.4 Dispute Resolution

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

C.3.6 Corrective Action

(1) Lots not achieving 95.0% of target density may be addressed and accepted for compaction in accordance with the requirements of this section. Unless otherwise stated, the actions taken to address an unacceptable lot must be applied to the entire lot.

Passing CA test results in accordance with section C.3.4.2, will reduce the limits of lot investigations and/or corrective actions.

(2) At no additional cost to the department, investigate the moisture content of material in an unacceptable lot. Moisture content testing/samples collected under the QC and/or QV testing articles of this specification may be used to complete this investigation. Obtain moisture content readings in accordance with ASTM D 6938.

(3) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density and exhibiting no signs of deflection when subjected to loading by the heaviest equipment used in the placement and compaction operations; will be, at no additional cost to the department, compacted a minimum of one more pass using equipment and methods representative of the operations used to place and compact the base aggregate dense; and density tested at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft^3 continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft^3, the lot is accepted as satisfying the compaction requirements of this provision.

(4) Unacceptable lots, with moisture contents in excess of 2.0 percentage points above or below optimum moisture for target density; shall receive contractor performed and documented corrective action; including additional density testing; at no additional cost to the department.

(5) Density tests completed subsequent to any corrective action will replace previous field density test results for that lot. Continue corrective actions until 95.0% of target density is achieved; or an alternate compaction acceptance criteria is met in accordance with this section.

D Measurement

The department will measure Backfill Railroad Special by the ton, acceptably completed. For measurement by the ton, the department will determine weight based on contractor-provided tickets submitted daily. Submit a ticket for each load showing the material, net weight, date, and project ID. For material with more than 7 percent moisture, the department will reduce the ticket weight by the weight of water exceeding 7 percent. The department will determine moisture content as a percent of dry weight.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.02	Backfill Railroad Special	TON

Payment is full compensation for furnishing and installing foundation and trench backfill, for sampling and laboratory testing; and for developing, completing, and documenting the compaction quality management program.

83. Sanitary Manhole, Item SPV.0200.01.

A Description

Furnish and install sanitary sewer manholes as shown in the plans, the most recent edition of the Standard Specifications for Sewer & Water Construction in Wisconsin, and hereinafter provided.

B Materials

B.1 Precast Manhole Sections

Precast concrete manhole sections shall have a minimum inside diameter of 48 inches. Clear opening shall match dimensions of castings. The cone section shall be the eccentric type with a minimum clear opening of 24 inches. Compressive strength of the concrete shall be 4000 psi and shall conform to ASTM C478. Manholes shall have-lock lift inserts in lieu of open lift holes.

B.2 Steps

Steps shall be Neenah Foundry R-1080-C. Steps shall be set at 16 inches on center and have a 5-3/4 inch projection from the wall.

B.3 Manhole Joint Materials

Sanitary sewer manhole joint materials shall be Kent Seal mastic, or joints sealed using a ribbed rubber gasket cast and anchored in the full inside depth of the bell riser and cone section.

B.4 Waterstop Seals

Waterstop seals shall be flexible, watertight, rubber wedge ring KOR-N-SEAL or equal approved by the City of Kaukauna.

B.5 Adjustment Rings

The manholes shall be built so that a maximum of two rings may be installed for adjustment.

B.6 Shop Drawings

Prior to incorporating any materials or products into the work, submit to the engineer product literature and catalog cuts of the materials to be supplied. Submit information in sufficient detail to readily determine if these materials are in conformance with the specifications.

C Construction

C.1 General

Invert channels shall be smooth and accurately shaped and in accordance to the contract drawings.

No horizontal surfaces shall be left on the inside of the manhole. The bench shall be shaped to drain into the floor channel.

All sanitary sewer pipe entering or leaving the structure shall be fitted with rubber waterstop seals where they pass through the manhole wall.

C.2 Drop Manhole Connections
Sanitary sewer manhole drop connections shall be outside drops constructed according to the most recent edition of the Standard Specifications for Sewer & Water Construction in Wisconsin. The drop assembly shall consist of a tee or wye connecting to the inflowing sewer, a drop pipe of the same diameter as the inflowing sewer, and a 90-degree bend at the bottom, all encased in concrete.

C.3 Cleaning
The contractor is responsible to see that manholes and sewer lines are free of dirt, gravel and debris, from the construction operations, at all times. The city will notify the contractor of any debris identified, and if the contractor fails to properly clean said debris, the city will charge the contractor for the cleaning of any manholes and sewer lines on this project during the progress of construction and until final acceptance of the improvements. Upon completion of the work, thoroughly clean out all manholes and pipe along the entire length of the project before leaving the construction site.

C.4 Testing
Conduct vacuum testing on manholes using vacuum testing equipment acceptable to city. Isolate manhole to be tested by plugging inlet and outlet pipes with inflatable stopper or other suitable test plugs. Securely brace plugs to avoid plugs being drawn into manhole. Plug lift holes with a non-shrink grout. Place vacuum test equipment inside of top cone section and conduct vacuum test in accordance to manufacturer's recommendations. Operate vacuum pump until 10 inches of mercury is obtained. Shut off vacuum pump and measure time for vacuum to drop from 10 to 9 inches of mercury. Manhole test is acceptable if the time exceeds the values in the table below:

Depth/Feet	Test Time/Seconds
8	20
10	25
12	30
14	35
16	40
18	45
20	50
22	55
24	59
26	64
28	69
30	74

If test fails, repair or seal manhole using non-shrink gout or other materials that are approved. Retest until an acceptable test is obtained. Test may be conducted before or after backfilling.

D Measurement

The department will measure Sanitary Manhole by the vertical feet, approved by the City of Kaukauna, acceptably completed and shall be measured from the flowline or invert of the outflowing pipe to the top of the structure (top of frame and cover minus 1.25 feet).

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0200.01	Sanitary Manhole	VF

Payment is full compensation for providing all labor and materials, including precast concrete manhole sections, base, cone, adjustment rings, steps, waterstop seals, couplings, and other required fittings; for pipe, and concrete encasement; for furnishing all excavating, except rock excavation; for forming foundation; for replacing unstable material in the trench bottom; for sheeting and shoring; for dewatering; for constructing the manhole; for backfilling and compacting; for providing backfill material, including bedding material; for removing sheeting and shoring; for testing; for cleaning out the manhole and adjoining pipes and restoring the worksite.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __8__ *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __5__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

I. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

II. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE [DBE] PROGRAM IMPLEMENTATION

1. Description

a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:

(1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.

(2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance. http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

(1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:
   i. Produce accurate and complete quotes.
   ii. Understand highway plans applicable to their work.
   iii. Understand specifications and contract requirements applicable to their work.
   iv. Understand contracting reporting requirements.

(2) Wisconsin DOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

(3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.

b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.

c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.

d. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

e. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

a. **Department's DBE Evaluation Process**
WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

b. **Documentation Submittal**
The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form

[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at DBE_Alert@dot.wi.gov (DBE_Alert@dot.wi.gov) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**
If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.

ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:

(a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.

(b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**
If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

b. Prime Contractors should:
   (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
   (2) Prime contractors may request assistance with DBE outreach and follow-up by contacting the department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: DOTDBESupportServices@dot.wi.gov.
   (3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A*. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.
      i. Solicit quotes from certified DBE firms who match 'possible items to subcontract' using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which you are seeking quotes to DOTDBESupportServices@dot.wi.gov.
      ii. SBN is the preferred outreach tool. https://www.bidx.com/wi/main. Other acceptable means include postal mail, email, fax, phone call.
         (a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
         (b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.
         (c) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up solicitation.
      iii. Upon request, provide interested DBE firms with adequate information about plans, specifications and the requirements of the contract by letter, information session, email, phone call and/or referral.
      iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit or insurance if requested.
      v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
         (a) Email to all prospective DBE firms in relevant work areas.
         (b) Phone call log to DBE firms who express interest via written response or call.
         (c) Fax/letter confirmation
         (d) Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.
   (1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, ***a discussion with the DBE firm*** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
   (2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

(3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. “Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as ‘all or none’ quote to the prime.” When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms’ quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.

i. Compare bid items common to both quotes, noting the reasonableness in the price comparison.
ii. Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
(2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
(3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
(4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
(5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

6. Use of Joint Checks

The *use of joint checks is allowable if it is a commonly recognized business practice in* the material industry. A joint check is defined as a two-party check between a DBE, a prime contractor and the regular dealer of materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE in cases where the prime has submitted the DBE and material for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
   (1) Request should be made when the DBE Commitment form or Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
   (2) Approval/Permission must be granted prior to the issuance of any joint checks.
   (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
   (4) The joint check for supplies must be strictly for the cost of supplies.

b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following.
   (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price and delivery of materials;
   (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor,
   (1) The prime agrees to furnish the check used for the payment of materials/supplies under the contract.
   (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractors negotiated unit price.

7. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.

b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

8. Department's Criteria for DBE Participation

Directory of DBE firms

a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:
   http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

9. Counting DBE Participation

Assessing DBE Work

a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:

b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.

c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.

d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.

e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.

f. It is the prime contractor’s responsibility to determine whether the work that is committed and/or contracted to a DBE certified firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

g. It is the prime contractor’s responsibility to assess the DBE firm’s ability to perform the work for which s/he is committing/contracting the DBE to do. Note that the department encourages the prime contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

10. Commercially Useful Function

a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE is performing a commercially useful function if the following conditions are met:
   (1) For contract work, the DBE is responsible for executing a distinct portion of the contract work and it is carrying out its responsibilities by actually performing, managing, and supervising that work.
   (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

12. Credit Evaluation for Manufacturers, Suppliers, Brokers

The department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The department will count the material and supplies that a DBE provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

a. Manufacturers
   (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
   (2) If the materials or supplies are obtained from a DBE manufacturer, count **100%** percent of the cost of the materials or supplies toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
   (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
   (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
      i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
      ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

c. Brokers, Transaction Expediters, Packagers, Manufacturers Representatives
   (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit; however, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives or other persons who arrange or expedite transactions.
   (2) Brokerage fees have historically been calculated as **10%** of the purchase amount.
   (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site.
   (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and documentation of the calculations used as the basis for the purchase agreement, subcontract or invoice. *WisDOT recognizes that the amount on the Attachment 'A' form may be more or less than the amount on the invoice*. Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

15. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.

b. DBE credit will be evaluated and confirmed by the DBE Office for any contracts on which the mentor protégé team identifies itself to the DBE Office as a current participant of the Mentor Protégé Program.

c. Refer to WisDOT's Mentor Protégé guidelines for guidance on the number of contracts and amount of DBE credit that can be counted on any WisDOT project.

16. DBE Replacement or Termination

Contractual Requirement

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

Contractor Considerations

a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [DT1506] without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.

c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.

d. In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason or is terminated from a contract, the prime contractor is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.

e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.

(1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
   i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your expectations for successful performance on the contract. Document these efforts in writing.
   ii. If those efforts fail, provide written notice to the DBE subcontractor of your *intent to* request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
   iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
   iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days to respond, in writing. **EXCEPTION:** The prime contractor must provide a verifiable reason for a response period shorter than five days. For example a WisDOT project manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
   v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

The Request to Replace or Terminate a DBE

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.

Examples of Good Causes to Replace a DBE according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract.
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Evaluation and Response to the Request
If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at DBE_Alert@dot.wi.gov or by calling 608-267-3849.

17. DBE Utilization beyond the approved DBE Commitment Form DT1506

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

a. Send an email to the DBE Engineer at DBE_Alert@dot.wi.gov describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.
If the scope change added work for a participating DBE; list the date and reason for the scope change.

b. Forward a complete, signed Attachment 'A' form to the DBE Office at DBE_Alert@dot.wi.gov. A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

18. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

19. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFW SAMPLE MEMORANDUM

TO:	DBE FIRMS
FROM:	POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT:	**REQUEST FOR DBE QUOTES** **LET DATE & TIME**
DATE:	MONTH DAY YEAR
CC:	DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days. Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at http://roadwaystandards.dot.wi.gov/hcci/

All questions should be directed to:

Project Manager, John Doe,

Phone: (000) 123-4567

Email: Joe@joetheplumber.com

Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTATION

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person	DBE Contractor Contact Person
Phone:	Phone
Fax:	Fax
Email:	Email

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B
BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE 'training session' Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C
Types of Efforts considered in determining GFE
This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a

contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E
Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription.
Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.

2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request.
    d. Add attachments to sub-quotes.

3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.

4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a "Good Faith" effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.

2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
    c. Add attachments to a sub-quote.

3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.

4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.

5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.

6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
    b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

Release of Routine Retainage

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

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

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

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

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

Make the following revisions to the standard specifications:

104.10.1 General

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

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

104.10.4.2 Payment for the CRI Work

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

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

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

NS = CW - CRW - CC - DC

Where:

NS = Net Savings

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

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

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

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

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

108.11 Liquidated Damages

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

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

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

LIQUIDATED DAMAGES

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

(1) Operate profilers within the manufacturer's recommended speed tolerances. Perform profile runs in the direction of travel. Measure the longitudinal profile of each wheel track of each lane. The wheel tracks are 6.0 feet apart and centered in the traveled way of the lane.

203.3.2.2 Removal Operations

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

203.3.2.2.1 General

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

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

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

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

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

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

203.3.2.2.2 Deck Removal

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

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

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

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

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

203.5.1 General

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

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

415.2.3 Expansion Joint Filler

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

(1) Furnish expansion joint filler conforming to AASHTO M153, AASHTO M213, ASTM D7174, or ASTM D8139 in lengths equal to the pavement lane width and of the thickness and height the plans show. Where dowel bars are required, use filler with factory-punched holes at the dowel bar locations and with a diameter not greater than 1/8 inch larger than the nominal dowel bar diameter.

415.3.20 Filling Joints

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

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

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415.5.1 General

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

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

440.3.4.2 Contractor Testing

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

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

502.2.7 Preformed Joint Filler

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

(1) Use preformed joint filler conforming to AASHTO M153, AASHTO M213, ASTM D7174, or ASTM D8139.

502.3.7.8 Floors

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

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

614.2.1 General

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

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

614.3.2.1 Installing Posts

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

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

614.5 Payment

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

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

641.2.9 Overhead Sign Supports

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

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

642.2.2.1 General

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

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

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

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

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

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

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

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

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

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

645.2.2.2 Geotextile, Type SAS (Subgrade Aggregate Separation)

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

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

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

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

645.2.2.4 Geotextile, Type DF (Drainage Filtration)

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

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

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

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

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

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

645.2.2.6 Geotextile, Type R (Riprap)

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

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

TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	205 lb
Minimum puncture strength	ASTM D6241	400 lb
Minimum apparent breaking elongation	ASTM D4632	15%

Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.12 s^{-1}

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

645.2.2.7 Geotextile, Type HR (Heavy Riprap)

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

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

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

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

645.2.2.8 Geotextile, Type C (Modified SAS)

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

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

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

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

715.3.1.3 Department Verification Testing

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

(1) The department will perform verification testing as specified in 701.4.2 with additional testing as required to obtain at least1 verification test per lot for air content, slump, temperature, and compressive strength.

Errata

Make the following corrections to the standard specifications:

106.3.3.1 General

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

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

205.3.1 General

Correct errata by deleting paragraph three to reflect current practice to incorporate suitable materials.

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

521.2 Materials

Correct errata by deleting bullet three and including aluminum coated pipe in bullet one.

(1) Furnish corrugated steel pipe and steel apron end walls as follows:

- Corrugated steel culvert pipe, steel apron endwalls, aluminum coated corrugated steel culvert pipe, and other components conforming to AASHTO M36.
- Polymer coated corrugated steel culvert pipe and pipe arch fabricated from zinc coated sheet steel conforming to AASHTO M218. Before fabrication, coat the sheets on both sides with polymer protective coating grade 250/250 according to AASHTO M246. Fabricate the pipe according to AASHTO M245.

614.3.2.2 Installing Rail

Correct errata for splice location and allow punching or drilling holes and slots.

(1) Install rail with lap splices in the direction of traffic. Ensure that the number and dimensions of holes and bolts conforms to the plan details for new splices. Place the round head of bolts on the traffic side.

(2) Cut rails to length by shearing or sawing; do not use cutting torches. Drill or punch bolt holes and slots; ensure that they are burr free. After installation, cut anchor bolts that project more than one inch from the nut to 1/2 inch from the nut; deburr the threaded end of cut bolts.

618.1 Description

Correct errata by deleting designated detours from the scope of Maintenance and Repair of Haul Roads.

(1) This section describes maintaining, repairing, and restoring all public roads, streets, drainage facilities, and other components used for hauling by contractor, subcontractor, or supplier to support work for a department contract to its pre-haul condition. Public roads and streets shall be limited to those not a part of the State Trunk Highway System and from now on called haul roads.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

ADDITIONAL SPECIAL PROVISION 9
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 Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

<u>Goals for female participation for each trade</u>: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

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 February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Effective with February 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. PREVAILING WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) attached hereto and made a part hereof furnishes the prevailing wage rates pursuant to Section 84.062 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the 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 84.062, Stats. Apprentices shall be paid at rates not less than those prescribed in their apprenticeship contract.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 16.856 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 base rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half:

January 1
Last Monday in May
July 4
First Monday in September
Fourth Thursday in November
December 25
The day before if January 1, July 4 or December 25 falls on a Saturday, and

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, euclid 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.

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 84.062 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 and accessible place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 84.062 of the Wisconsin Statutes.

b. A copy of the U.S. Department of Labor (Davis-Bacon, Minimum Wage Rates).

c. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. WAGE RATE REDISTRIBUTION

A contractor or subcontractor performing work subject to a Davis-Bacon wage determination may discharge its minimum wage obligations for the payment of both straight time wages and fringe benefits by (1) paying both in cash, (2) making payments or incurring costs for bona fide fringe benefits, or (3) by a combination thereof. Thus, under the Davis-Bacon a contractor may offset an amount of monetary wages paid in excess of the minimum wage required under the determination to satisfy its fringe benefit obligations. *See* 40 USC 3142(d) and 29 CFR 5.31.

V. ADDITIONAL CLASSIFICATIONS

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5(a)(1)(ii)). The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.

The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

a. The work to be performed by the classification requested is not performed by a classification in the wage determination; and

b. The classification is utilized in the area by the construction industry; and

c. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

General Decision Number: WI170010 10/06/2017 WI10

Superseded General Decision Number: WI20160010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	02/10/2017
3	02/24/2017
4	03/17/2017
5	03/31/2017
6	04/21/2017
7	04/28/2017
8	06/02/2017
9	06/23/2017
10	07/14/2017
11	07/21/2017
12	07/28/2017
13	08/11/2017
14	08/25/2017
15	09/08/2017
16	09/22/2017
17	10/06/2017

BRWI0001-002 06/01/2016

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.84	20.95

BRWI0002-002 06/01/2016

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.04	19.70

BRWI0002-005 06/01/2016

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 35.07	20.51

BRWI0003-002 06/01/2016

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0004-002 06/01/2016

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.59	21.49

BRWI0006-002 06/01/2016

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.04	19.75

BRWI0007-002 06/01/2016

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.53	20.95

BRWI0008-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.98	20.62

BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0019-002 06/01/2016

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.98	20.81

BRWI0034-002 06/01/2015

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.86	17.22

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2016

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 34.57	18.16

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 06/01/2017

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 33.01	19.69

ELEC0014-007 06/05/2017

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 25.81	14.01

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2017

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 38.50	30%+10.57

ELEC0158-002 06/05/2017

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:	$ 31.48	19.18

ELEC0159-003 06/05/2017

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:	$ 37.75	20.96

ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63
Electrical contracts under $180,000	$ 30.18	18.42

ELEC0242-005 06/04/2017

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 35.90	25.64

ELEC0388-002 05/30/2016

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 30.69	26.00% +10.05

ELEC0430-002 06/01/2017

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 37.32	21.07

ELEC0494-005 06/01/2017

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 37.51	24.42

ELEC0494-006 06/01/2017

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 32.06	21.88

ELEC0494-013 06/01/2015

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer:	$ 16.47	14.84
Technician:	$ 26.00	17.70

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2017

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:	$ 31.15	18.22

ELEC0890-003 06/01/2017

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,

RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 33.25	19.34

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-005 06/05/2017

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 39.27	22.05
Group 2	$ 38.77	22.05
Group 3	$ 38.27	22.05
Group 4	$ 38.01	22.05
Group 5	$ 37.72	22.05
Group 6	$ 31.82	22.05

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap

machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

IRON0008-002 06/01/2017

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 31.24	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2017

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.19	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2017

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 34.50	23.82

IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 36.29	30.77

IRON0512-008 05/01/2017

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.50	26.45

IRON0512-021 05/01/2017

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.04	26.45

LABO0113-002 06/05/2017

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.80	21.34
Group 2	$ 26.95	21.34
Group 3	$ 27.15	21.34
Group 4	$ 27.30	21.34
Group 5	$ 27.45	21.34
Group 6	$ 23.29	21.34

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/05/2017

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.05	21.34
Group 2	$ 26.15	21.34
Group 3	$ 26.20	21.34
Group 4	$ 26.40	21.34
Group 5	$ 26.25	21.34
Group 6	$ 23.14	21.34

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/05/2017

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 25.86	21.34
Group 2	$ 26.01	21.34
Group 3	$ 26.21	21.34
Group 4	$ 26.18	21.34
Group 5	$ 26.51	21.34
Group 6	$ 23.00	21.34

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

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* LABO0140-002 06/05/2017

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.71	16.79
Group 2	$ 30.81	16.79
Group 3	$ 30.86	16.79
Group 4	$ 31.06	16.79
Group 5	$ 30.91	16.79
Group 6	$ 27.34	16.79

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch

Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

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* LABO0464-003 06/05/2017

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 30.99	16.79
Group 2	$ 31.09	16.79
Group 3	$ 31.14	16.79
Group 4	$ 31.34	16.79
Group 5	$ 31.19	16.79
Group 6	$ 27.34	16.79

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/02/2016

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 29.86	16.35
Spray, Sandblast, Steel	$ 30.46	16.35
Repaint:		
Brush, Roller	$ 28.36	16.35
Spray, Sandblast, Steel	$ 28.96	16.35

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* PAIN0108-002 06/01/2017

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 33.74	18.95
Spray & Sandblast	$ 34.74	18.95

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2017

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 30.60	22.80
Brush	$ 30.25	22.80
Spray & Sandblast	$ 31.00	22.80

PAIN0802-002 06/01/2017

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 28.25	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2017

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 24.89	12.05

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 33.74	18.95
Spray	$ 34.74	18.95
Structural Steel	$ 33.89	18.95

PAIN1011-002 06/01/2017

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.86	12.23

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40

Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2017

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 27.40	20.48
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic	$ 27.55	20.48
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular

rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial

contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

March 2017

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

Proposal ID: 20171212001 **Project(s):** 4650-08-71

Federal ID(s): WISC 2017623

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	30.000 STA	_____._____	_____._____
0004	201.0120 Clearing	160.000 ID	_____._____	_____._____
0006	201.0205 Grubbing	31.000 STA	_____._____	_____._____
0008	201.0220 Grubbing	160.000 ID	_____._____	_____._____
0010	203.0100 Removing Small Pipe Culverts	13.000 EACH	_____._____	_____._____
0012	203.0200 Removing Old Structure (station) 01. Sta 234+73 4'X6' Box	LS	LUMP SUM	_____._____
0014	204.0100 Removing Pavement	27,047.000 SY	_____._____	_____._____
0016	204.0120 Removing Asphaltic Surface Milling	4,560.000 SY	_____._____	_____._____
0018	204.0150 Removing Curb & Gutter	1,145.000 LF	_____._____	_____._____
0020	204.0155 Removing Concrete Sidewalk	1,412.000 SY	_____._____	_____._____
0022	204.0170 Removing Fence	3,930.000 LF	_____._____	_____._____
0024	204.0180 Removing Delineators and Markers	27.000 EACH	_____._____	_____._____
0026	204.0195 Removing Concrete Bases	11.000 EACH	_____._____	_____._____
0028	204.0205 Removing Utility Poles	1.000 EACH	_____._____	_____._____
0030	204.0210 Removing Manholes	27.000 EACH	_____._____	_____._____
0032	204.0220 Removing Inlets	40.000 EACH	_____._____	_____._____

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0034	204.0245 Removing Storm Sewer (size) 01. 6-10 Inch	436.000 LF	_____.____	_____.____
0036	204.0245 Removing Storm Sewer (size) 02. 12-15 Inch	1,913.000 LF	_____.____	_____.____
0038	204.0245 Removing Storm Sewer (size) 03. 18-21 Inch	170.000 LF	_____.____	_____.____
0040	204.0245 Removing Storm Sewer (size) 04. 24-30 Inch	509.000 LF	_____.____	_____.____
0042	204.0245 Removing Storm Sewer (size) 05. 36-42 Inch	280.000 LF	_____.____	_____.____
0044	204.0245 Removing Storm Sewer (size) 06. 48-54 Inch	1,663.000 LF	_____.____	_____.____
0046	204.0270 Abandoning Culvert Pipes	2.000 EACH	_____.____	_____.____
0048	204.0291.S Abandoning Sewer	37.600 CY	_____.____	_____.____
0050	204.9060.S Removing (item description) 01. Remove Ramp Gate System	3.000 EACH	_____.____	_____.____
0052	205.0100 Excavation Common	87,233.000 CY	_____.____	_____.____
0054	209.1100 Backfill Granular Grade 1	30.000 CY	_____.____	_____.____
0056	209.2100 Backfill Granular Grade 2	1,000.000 CY	_____.____	_____.____
0058	210.2500 Backfill Structure Type B	235.000 TON	_____.____	_____.____
0060	213.0100 Finishing Roadway (project) 01. 4650-08-71	1.000 EACH	_____.____	_____.____
0062	305.0110 Base Aggregate Dense 3/4-Inch	2,625.000 TON	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	305.0120 Base Aggregate Dense 1 1/4-Inch	45,481.000 TON	_____.____	_____.____
0066	310.0110 Base Aggregate Open-Graded	57.000 TON	_____.____	_____.____
0068	311.0110 Breaker Run	60,000.000 TON	_____.____	_____.____
0070	312.0110 Select Crushed Material	940.000 TON	_____.____	_____.____
0072	350.0102 Subbase	1,620.000 CY	_____.____	_____.____
0074	405.0100 Coloring Concrete WisDOT Red	1,360.000 CY	_____.____	_____.____
0076	405.1000 Stamping Colored Concrete	130.000 CY	_____.____	_____.____
0078	415.0080 Concrete Pavement 8-Inch	7,780.000 SY	_____.____	_____.____
0080	415.0090 Concrete Pavement 9-Inch	33,660.000 SY	_____.____	_____.____
0082	415.0095 Concrete Pavement 9 1/2-Inch	8,610.000 SY	_____.____	_____.____
0084	415.0210 Concrete Pavement Gaps	10.000 EACH	_____.____	_____.____
0086	415.1090 Concrete Pavement HES 9-Inch	4,020.000 SY	_____.____	_____.____
0088	415.1095 Concrete Pavement HES 9 1/2-Inch	1,360.000 SY	_____.____	_____.____
0090	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.____	_____.____
0092	416.0160 Concrete Driveway 6-Inch	726.000 SY	_____.____	_____.____
0094	416.0180 Concrete Driveway 8-Inch	310.000 SY	_____.____	_____.____
0096	416.0260 Concrete Driveway HES 6-Inch	398.000 SY	_____.____	_____.____

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0098	416.0280 Concrete Driveway HES 8-Inch	195.000 SY	_____.____	_____.____
0100	416.0512 Concrete Truck Apron 12-Inch	2,250.000 SY	_____.____	_____.____
0102	416.0610 Drilled Tie Bars	14.000 EACH	_____.____	_____.____
0104	416.0620 Drilled Dowel Bars	188.000 EACH	_____.____	_____.____
0106	416.1010 Concrete Surface Drains	2.000 CY	_____.____	_____.____
0108	440.4410 Incentive IRI Ride	3,799.000 DOL	1.00000	3,799.00
0110	450.4000 HMA Cold Weather Paving	553.000 TON	_____.____	_____.____
0112	455.0605 Tack Coat	748.000 GAL	_____.____	_____.____
0114	460.2000 Incentive Density HMA Pavement	1,720.000 DOL	1.00000	1,720.00
0116	460.5223 HMA Pavement 3 LT 58-28 S	155.000 TON	_____.____	_____.____
0118	460.5224 HMA Pavement 4 LT 58-28 S	1,060.000 TON	_____.____	_____.____
0120	460.6223 HMA Pavement 3 MT 58-28 S	190.000 TON	_____.____	_____.____
0122	460.6224 HMA Pavement 4 MT 58-28 S	75.000 TON	_____.____	_____.____
0124	460.7223 HMA Pavement 3 HT 58-28 S	885.000 TON	_____.____	_____.____
0126	460.7224 HMA Pavement 4 HT 58-28 S	325.000 TON	_____.____	_____.____
0128	465.0105 Asphaltic Surface	60.000 TON	_____.____	_____.____

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0130	465.0120 Asphaltic Surface Driveways and Field Entrances	607.000 TON	_____.____	_____.____
0132	465.0125 Asphaltic Surface Temporary	100.000 TON	_____.____	_____.____
0134	465.0400 Asphaltic Shoulder Rumble Strips	1,700.000 LF	_____.____	_____.____
0136	520.8000 Concrete Collars for Pipe	2.000 EACH	_____.____	_____.____
0138	521.1503 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 4 to 1	1.000 EACH	_____.____	_____.____
0140	521.3118 Culvert Pipe Corrugated Steel 18-Inch	4.000 LF	_____.____	_____.____
0142	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	4.000 EACH	_____.____	_____.____
0144	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	4.000 EACH	_____.____	_____.____
0146	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	3.000 EACH	_____.____	_____.____
0148	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	8.000 EACH	_____.____	_____.____
0150	522.1027 Apron Endwalls for Culvert Pipe Reinforced Concrete 27-Inch	2.000 EACH	_____.____	_____.____
0152	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	2.000 EACH	_____.____	_____.____
0154	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	2.000 EACH	_____.____	_____.____
0156	601.0409 Concrete Curb & Gutter 30-Inch Type A	15,604.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0158	601.0411 Concrete Curb & Gutter 30-Inch Type D	530.000 LF	_____.____	_____.____
0160	601.0452 Concrete Curb & Gutter Integral 30-Inch Type D	194.000 LF	_____.____	_____.____
0162	601.0501 Concrete Curb & Gutter Integral 4-Inch Sloped 36-Inch	715.000 LF	_____.____	_____.____
0164	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	2,876.000 LF	_____.____	_____.____
0166	601.0580 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	1,503.000 LF	_____.____	_____.____
0168	601.0600 Concrete Curb Pedestrian	820.000 LF	_____.____	_____.____
0170	602.0405 Concrete Sidewalk 4-Inch	46,140.000 SF	_____.____	_____.____
0172	602.0410 Concrete Sidewalk 5-Inch	74,930.000 SF	_____.____	_____.____
0174	602.0415 Concrete Sidewalk 6-Inch	10,560.000 SF	_____.____	_____.____
0176	602.0515 Curb Ramp Detectable Warning Field Natural Patina	1,862.000 SF	_____.____	_____.____
0178	604.0400 Slope Paving Concrete	490.000 SY	_____.____	_____.____
0180	606.0200 Riprap Medium	22.000 CY	_____.____	_____.____
0182	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	1,504.000 LF	_____.____	_____.____
0184	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	919.000 LF	_____.____	_____.____
0186	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	1,850.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0188	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	932.000 LF	_____.____	_____.____
0190	608.0327 Storm Sewer Pipe Reinforced Concrete Class III 27-Inch	150.000 LF	_____.____	_____.____
0192	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	822.000 LF	_____.____	_____.____
0194	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	887.000 LF	_____.____	_____.____
0196	608.0342 Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	626.000 LF	_____.____	_____.____
0198	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	410.000 LF	_____.____	_____.____
0200	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	395.000 LF	_____.____	_____.____
0202	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	311.000 LF	_____.____	_____.____
0204	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	211.000 LF	_____.____	_____.____
0206	608.0421 Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	110.000 LF	_____.____	_____.____
0208	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	278.000 LF	_____.____	_____.____
0210	608.2348 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 48x76-Inch	572.000 LF	_____.____	_____.____
0212	608.2358 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 58x91-Inch	181.000 LF	_____.____	_____.____

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0214	608.3630 Storm Sewer Pipe Class III-B 30-Inch	70.000 LF	_____.____	_____.____
0216	611.0420 Reconstructing Manholes	1.000 EACH	_____.____	_____.____
0218	611.0530 Manhole Covers Type J	36.000 EACH	_____.____	_____.____
0220	611.0612 Inlet Covers Type C	1.000 EACH	_____.____	_____.____
0222	611.0615 Inlet Covers Type F	17.000 EACH	_____.____	_____.____
0224	611.0624 Inlet Covers Type H	70.000 EACH	_____.____	_____.____
0226	611.0639 Inlet Covers Type H-S	18.000 EACH	_____.____	_____.____
0228	611.0642 Inlet Covers Type MS	10.000 EACH	_____.____	_____.____
0230	611.0652 Inlet Covers Type T	8.000 EACH	_____.____	_____.____
0232	611.2004 Manholes 4-FT Diameter	16.000 EACH	_____.____	_____.____
0234	611.2005 Manholes 5-FT Diameter	16.000 EACH	_____.____	_____.____
0236	611.2006 Manholes 6-FT Diameter	11.000 EACH	_____.____	_____.____
0238	611.2007 Manholes 7-FT Diameter	3.000 EACH	_____.____	_____.____
0240	611.2044 Manholes 4x4-FT	1.000 EACH	_____.____	_____.____
0242	611.2066 Manholes 6x6-FT	1.000 EACH	_____.____	_____.____
0244	611.2504 Manholes Variable Tee 4-FT Diameter	1.000 EACH	_____.____	_____.____
0246	611.3230 Inlets 2x3-FT	74.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0248	611.3253 Inlets 2.5x3-FT	16.000 EACH	_____.____	_____.____
0250	611.3901 Inlets Median 1 Grate	10.000 EACH	_____.____	_____.____
0252	611.8110 Adjusting Manhole Covers	1.000 EACH	_____.____	_____.____
0254	611.8115 Adjusting Inlet Covers	1.000 EACH	_____.____	_____.____
0256	612.0106 Pipe Underdrain 6-Inch	350.000 LF	_____.____	_____.____
0258	612.0206 Pipe Underdrain Unperforated 6-Inch	70.000 LF	_____.____	_____.____
0260	612.0406 Pipe Underdrain Wrapped 6-Inch	1,161.000 LF	_____.____	_____.____
0262	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	4.000 EACH	_____.____	_____.____
0264	612.0902.S Insulation Board Polystyrene (inch) 01. 2-Inch	80.000 SY	_____.____	_____.____
0266	614.0115 Anchorages for Steel Plate Beam Guard Type 2	1.000 EACH	_____.____	_____.____
0268	614.0305 Steel Plate Beam Guard Class A	1,200.000 LF	_____.____	_____.____
0270	614.0370 Steel Plate Beam Guard Energy Absorbing Terminal	2.000 EACH	_____.____	_____.____
0272	614.0920 Salvaged Rail	860.000 LF	_____.____	_____.____
0274	614.0925 Salvaged Guardrail End Treatments	6.000 EACH	_____.____	_____.____
0276	614.2300 MGS Guardrail 3	150.000 LF	_____.____	_____.____
0278	614.2610 MGS Guardrail Terminal EAT	4.000 EACH	_____.____	_____.____

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0280	614.2620 MGS Guardrail Terminal Type 2	4.000 EACH	_____.____	_____.____
0282	616.0205 Fence Chain Link 5-FT	4,832.000 LF	_____.____	_____.____
0284	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0286	620.0300 Concrete Median Sloped Nose	1,856.000 SF	_____.____	_____.____
0288	624.0100 Water	581.000 MGAL	_____.____	_____.____
0290	625.0100 Topsoil	53,860.000 SY	_____.____	_____.____
0292	625.0500 Salvaged Topsoil	37,400.000 SY	_____.____	_____.____
0294	628.1504 Silt Fence	7,365.000 LF	_____.____	_____.____
0296	628.1520 Silt Fence Maintenance	7,365.000 LF	_____.____	_____.____
0298	628.1905 Mobilizations Erosion Control	6.000 EACH	_____.____	_____.____
0300	628.1910 Mobilizations Emergency Erosion Control	3.000 EACH	_____.____	_____.____
0302	628.2004 Erosion Mat Class I Type B	37,400.000 SY	_____.____	_____.____
0304	628.2006 Erosion Mat Urban Class I Type A	54,660.000 SY	_____.____	_____.____
0306	628.7005 Inlet Protection Type A	98.000 EACH	_____.____	_____.____
0308	628.7010 Inlet Protection Type B	45.000 EACH	_____.____	_____.____
0310	628.7015 Inlet Protection Type C	86.000 EACH	_____.____	_____.____
0312	628.7020 Inlet Protection Type D	21.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0314	628.7504 Temporary Ditch Checks	750.000 LF	_____.____	_____.____
0316	628.7555 Culvert Pipe Checks	103.000 EACH	_____.____	_____.____
0318	628.7560 Tracking Pads	6.000 EACH	_____.____	_____.____
0320	628.7570 Rock Bags	50.000 EACH	_____.____	_____.____
0322	629.0210 Fertilizer Type B	63.000 CWT	_____.____	_____.____
0324	630.0130 Seeding Mixture No. 30	700.000 LB	_____.____	_____.____
0326	630.0140 Seeding Mixture No. 40	1,085.000 LB	_____.____	_____.____
0328	632.0101 Trees (species) (size) (root) 01. Royal Raindrops 2-IN B&B	6.000 EACH	_____.____	_____.____
0330	632.0101 Trees (species) (size) (root) 02. Japanese Lilac Trees Ivory Silk, 1.5-IN B&B	3.000 EACH	_____.____	_____.____
0332	632.0101 Trees (species) (size) (root) 03. Cleveland Select 2 IN B&B	3.000 EACH	_____.____	_____.____
0334	632.0201 Shrubs (species) (size) (root) 01. Sea Green Juniper 5 Gal Pot	18.000 EACH	_____.____	_____.____
0336	632.0201 Shrubs (species) (size) (root) 02. Large Pyramidal Juniper Witchita Blue 5 Gal Pot	6.000 EACH	_____.____	_____.____
0338	632.0201 Shrubs (species) (size) (root) 03. Summerwine Ninebark 5 Gal Pot	18.000 EACH	_____.____	_____.____
0340	632.0201 Shrubs (species) (size) (root) 04. Juniper Andorra Compacta 5 Gal Pot	6.000 EACH	_____.____	_____.____

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0342	632.0201 Shrubs (species) (size) (root) 05. Ivory Halo Dogwood 5 Gal Pot	12.000 EACH	_____.____	_____.____
0344	632.9101 Landscape Planting Surveillance and Care Cycles	24.000 EACH	_____.____	_____.____
0346	633.0100 Delineator Posts Steel	55.000 EACH	_____.____	_____.____
0348	633.0500 Delineator Reflectors	84.000 EACH	_____.____	_____.____
0350	633.5200 Markers Culvert End	25.000 EACH	_____.____	_____.____
0352	634.0614 Posts Wood 4x6-Inch X 14-FT	20.000 EACH	_____.____	_____.____
0354	634.0616 Posts Wood 4x6-Inch X 16-FT	51.000 EACH	_____.____	_____.____
0356	634.0810 Posts Tubular Steel 2x2-Inch X 10-FT	8.000 EACH	_____.____	_____.____
0358	634.0812 Posts Tubular Steel 2x2-Inch X 12-FT	99.000 EACH	_____.____	_____.____
0360	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	26.000 EACH	_____.____	_____.____
0362	636.0100 Sign Supports Concrete Masonry	8.000 CY	_____.____	_____.____
0364	636.1500 Sign Supports Steel Coated Reinforcement HS	990.000 LB	_____.____	_____.____
0366	637.1220 Signs Type I Reflective SH	875.500 SF	_____.____	_____.____
0368	637.2210 Signs Type II Reflective H	1,693.430 SF	_____.____	_____.____
0370	637.2215 Signs Type II Reflective H Folding	69.840 SF	_____.____	_____.____
0372	637.2230 Signs Type II Reflective F	299.280 SF	_____.____	_____.____

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0374	638.2602 Removing Signs Type II	131.000 EACH	_____.____	_____.____
0376	638.3000 Removing Small Sign Supports	134.000 EACH	_____.____	_____.____
0378	641.1200 Sign Bridge Cantilevered (structure) 01. S-44-0144	LS	LUMP SUM	_____.____
0380	641.8100 Overhead Sign Support (structure) 01. S-44-200	LS	LUMP SUM	_____.____
0382	641.8100 Overhead Sign Support (structure) 02. S-44-201	LS	LUMP SUM	_____.____
0384	641.8100 Overhead Sign Support (structure) 03. S-44-202	LS	LUMP SUM	_____.____
0386	641.8100 Overhead Sign Support (structure) 04. S-44-203	LS	LUMP SUM	_____.____
0388	641.8100 Overhead Sign Support (structure) 05. S-44-204	LS	LUMP SUM	_____.____
0390	641.8100 Overhead Sign Support (structure) 06. S-44-205	LS	LUMP SUM	_____.____
0392	641.8100 Overhead Sign Support (structure) 07. S-44-206	LS	LUMP SUM	_____.____
0394	641.8100 Overhead Sign Support (structure) 08. S-44-207	LS	LUMP SUM	_____.____
0396	641.8100 Overhead Sign Support (structure) 09. S-44-208	LS	LUMP SUM	_____.____
0398	641.8100 Overhead Sign Support (structure) 10. S-44-209	LS	LUMP SUM	_____.____
0400	642.5401 Field Office Type D	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0402	643.0300 Traffic Control Drums	12,365.000 DAY	_____.____	_____.____
0404	643.0410 Traffic Control Barricades Type II	950.000 DAY	_____.____	_____.____
0406	643.0420 Traffic Control Barricades Type III	9,240.000 DAY	_____.____	_____.____
0408	643.0705 Traffic Control Warning Lights Type A	18,480.000 DAY	_____.____	_____.____
0410	643.0715 Traffic Control Warning Lights Type C	827.000 DAY	_____.____	_____.____
0412	643.0800 Traffic Control Arrow Boards	160.000 DAY	_____.____	_____.____
0414	643.0900 Traffic Control Signs	73,296.000 DAY	_____.____	_____.____
0416	643.0910 Traffic Control Covering Signs Type I	2.000 EACH	_____.____	_____.____
0418	643.0920 Traffic Control Covering Signs Type II	8.000 EACH	_____.____	_____.____
0420	643.1000 Traffic Control Signs Fixed Message	392.000 SF	_____.____	_____.____
0422	643.1050 Traffic Control Signs PCMS	63.000 DAY	_____.____	_____.____
0424	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0426	644.1410.S Temporary Pedestrian Surface Asphalt	4,900.000 SF	_____.____	_____.____
0428	644.1601.S Temporary Curb Ramp	24.000 EACH	_____.____	_____.____
0430	644.1616.S Temporary Pedestrian Safety Fence	850.000 LF	_____.____	_____.____
0432	645.0111 Geotextile Type DF Schedule A	315.000 SY	_____.____	_____.____
0434	645.0120 Geotextile Type HR	39.600 SY	_____.____	_____.____

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0436	645.0130 Geotextile Type R	10.000 SY	_____.____	_____.____
0438	645.0140 Geotextile Type SAS	19,920.000 SY	_____.____	_____.____
0440	646.1020 Marking Line Epoxy 4-Inch	29,227.000 LF	_____.____	_____.____
0442	646.3020 Marking Line Epoxy 8-Inch	3,975.000 LF	_____.____	_____.____
0444	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	1,793.000 LF	_____.____	_____.____
0446	646.5020 Marking Arrow Epoxy	81.000 EACH	_____.____	_____.____
0448	646.5120 Marking Word Epoxy	36.000 EACH	_____.____	_____.____
0450	646.5220 Marking Symbol Epoxy	9.000 EACH	_____.____	_____.____
0452	646.5320 Marking Railroad Crossings Epoxy	5.000 EACH	_____.____	_____.____
0454	646.6120 Marking Stop Line Epoxy 18-Inch	96.000 LF	_____.____	_____.____
0456	646.6320 Marking Dotted Extension Epoxy 18-Inch	458.000 LF	_____.____	_____.____
0458	646.7120 Marking Diagonal Epoxy 12-Inch	218.000 LF	_____.____	_____.____
0460	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	2,489.000 LF	_____.____	_____.____
0462	646.8120 Marking Curb Epoxy	90.000 LF	_____.____	_____.____
0464	646.8220 Marking Island Nose Epoxy	9.000 EACH	_____.____	_____.____
0466	646.9000 Marking Removal Line 4-Inch	1,441.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0468	649.0150 Temporary Marking Line Removable Tape 4-Inch	880.000 LF	_____.____	_____.____
0470	650.4000 Construction Staking Storm Sewer	180.000 EACH	_____.____	_____.____
0472	650.4500 Construction Staking Subgrade	21,015.000 LF	_____.____	_____.____
0474	650.5000 Construction Staking Base	309.000 LF	_____.____	_____.____
0476	650.5500 Construction Staking Curb Gutter and Curb & Gutter	30,260.000 LF	_____.____	_____.____
0478	650.6500 Construction Staking Structure Layout (structure) 01. R-44-24	LS	LUMP SUM	_____.____
0480	650.6500 Construction Staking Structure Layout (structure) 02. R-44-25	LS	LUMP SUM	_____.____
0482	650.6500 Construction Staking Structure Layout (structure) 03. R-44-26	LS	LUMP SUM	_____.____
0484	650.6500 Construction Staking Structure Layout (structure) 04. S-44-0144	LS	LUMP SUM	_____.____
0486	650.6500 Construction Staking Structure Layout (structure) 05. M-44-0001	LS	LUMP SUM	_____.____
0488	650.6500 Construction Staking Structure Layout (structure) 06. M-44-0002	LS	LUMP SUM	_____.____
0490	650.6500 Construction Staking Structure Layout (structure) 07. M-44-0003	LS	LUMP SUM	_____.____
0492	650.6500 Construction Staking Structure Layout (structure) 08. M-44-0004	LS	LUMP SUM	_____.____
0494	650.6500 Construction Staking Structure Layout (structure) 09. S-44-200	LS	LUMP SUM	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0496	650.6500 Construction Staking Structure Layout (structure) 10. S-44-201	LS	LUMP SUM	_____._____
0498	650.6500 Construction Staking Structure Layout (structure) 11. S-44-202	LS	LUMP SUM	_____._____
0500	650.6500 Construction Staking Structure Layout (structure) 12. S-44-203	LS	LUMP SUM	_____._____
0502	650.6500 Construction Staking Structure Layout (structure) 13. S-44-204	LS	LUMP SUM	_____._____
0504	650.6500 Construction Staking Structure Layout (structure) 14. S-44-205	LS	LUMP SUM	_____._____
0506	650.6500 Construction Staking Structure Layout (structure) 15. S-44-206	LS	LUMP SUM	_____._____
0508	650.6500 Construction Staking Structure Layout (structure) 16. S-44-207	LS	LUMP SUM	_____._____
0510	650.6500 Construction Staking Structure Layout (structure) 17. S-44-208	LS	LUMP SUM	_____._____
0512	650.6500 Construction Staking Structure Layout (structure) 18. S-44-209	LS	LUMP SUM	_____._____
0514	650.7000 Construction Staking Concrete Pavement	21,785.000 LF	_____._____	_____._____
0516	650.8500 Construction Staking Electrical Installations (project) 01. 4650-08-71	LS	LUMP SUM	_____._____
0518	650.9910 Construction Staking Supplemental Control (project) 01. 4650-08-71	LS	LUMP SUM	_____._____
0520	650.9920 Construction Staking Slope Stakes	21,015.000 LF	_____._____	_____._____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0522	652.0135 Conduit Rigid Metallic 3-Inch	50.000 LF	_____.____	_____.____
0524	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	2,560.000 LF	_____.____	_____.____
0526	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,142.000 LF	_____.____	_____.____
0528	652.0800 Conduit Loop Detector	512.000 LF	_____.____	_____.____
0530	653.0105 Pull Boxes Steel 12x24-Inch	9.000 EACH	_____.____	_____.____
0532	653.0154 Pull Boxes Non-Conductive 24x36-Inch	4.000 EACH	_____.____	_____.____
0534	653.0164 Pull Boxes Non-Conductive 24x42-Inch	29.000 EACH	_____.____	_____.____
0536	653.0905 Removing Pull Boxes	4.000 EACH	_____.____	_____.____
0538	654.0101 Concrete Bases Type 1	4.000 EACH	_____.____	_____.____
0540	654.0102 Concrete Bases Type 2	4.000 EACH	_____.____	_____.____
0542	654.0105 Concrete Bases Type 5	18.000 EACH	_____.____	_____.____
0544	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.____	_____.____
0546	654.0220 Concrete Control Cabinet Bases Type 10	2.000 EACH	_____.____	_____.____
0548	654.0224 Concrete Control Cabinet Bases Type L24	2.000 EACH	_____.____	_____.____
0550	655.0230 Cable Traffic Signal 5-14 AWG	379.000 LF	_____.____	_____.____
0552	655.0240 Cable Traffic Signal 7-14 AWG	579.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0554	655.0250 Cable Traffic Signal 9-14 AWG	205.000 LF	_____.____	_____.____
0556	655.0260 Cable Traffic Signal 12-14 AWG	695.000 LF	_____.____	_____.____
0558	655.0270 Cable Traffic Signal 15-14 AWG	233.000 LF	_____.____	_____.____
0560	655.0305 Cable Type UF 2-12 AWG Grounded	576.000 LF	_____.____	_____.____
0562	655.0515 Electrical Wire Traffic Signals 10 AWG	843.000 LF	_____.____	_____.____
0564	655.0610 Electrical Wire Lighting 12 AWG	2,100.000 LF	_____.____	_____.____
0566	655.0615 Electrical Wire Lighting 10 AWG	10,130.000 LF	_____.____	_____.____
0568	655.0700 Loop Detector Lead In Cable	1,281.000 LF	_____.____	_____.____
0570	655.0800 Loop Detector Wire	1,584.000 LF	_____.____	_____.____
0572	655.0900 Traffic Signal EVP Detector Cable	704.000 LF	_____.____	_____.____
0574	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. STH 55 & STH 96	LS	LUMP SUM	_____.____
0576	656.0200 Electrical Service Meter Breaker Pedestal (location) 02. SB IH 41 & STH 55	LS	LUMP SUM	_____.____
0578	656.0200 Electrical Service Meter Breaker Pedestal (location) 03 NB IH 41 & STH 55	LS	LUMP SUM	_____.____
0580	657.0100 Pedestal Bases	6.000 EACH	_____.____	_____.____
0582	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	22.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0584	657.0310 Poles Type 3	4.000 EACH	_____.____	_____.____
0586	657.0322 Poles Type 5-Aluminum	14.000 EACH	_____.____	_____.____
0588	657.0420 Traffic Signal Standards Aluminum 13-FT	2.000 EACH	_____.____	_____.____
0590	657.0425 Traffic Signal Standards Aluminum 15-FT	4.000 EACH	_____.____	_____.____
0592	657.0585 Trombone Arms 15-FT	2.000 EACH	_____.____	_____.____
0594	657.0590 Trombone Arms 20-FT	1.000 EACH	_____.____	_____.____
0596	657.0595 Trombone Arms 25-FT	1.000 EACH	_____.____	_____.____
0598	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	4.000 EACH	_____.____	_____.____
0600	657.0710 Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	14.000 EACH	_____.____	_____.____
0602	658.0173 Traffic Signal Face 3S 12-Inch	8.000 EACH	_____.____	_____.____
0604	658.0175 Traffic Signal Face 5S 12-Inch	4.000 EACH	_____.____	_____.____
0606	658.0416 Pedestrian Signal Face 16-Inch	8.000 EACH	_____.____	_____.____
0608	658.0500 Pedestrian Push Buttons	8.000 EACH	_____.____	_____.____
0610	658.5069 Signal Mounting Hardware (location) 01. STH 55 & STH 96	LS	LUMP SUM	_____.____
0612	659.1115 Luminaires Utility LED A	14.000 EACH	_____.____	_____.____
0614	659.1125 Luminaires Utility LED C	4.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0616	659.2124 Lighting Control Cabinets 120/240 24-Inch	2.000 EACH	_____._____	_____._____
0618	662.2024.S Ramp Closure Gates Solar 24-FT	2.000 EACH	_____._____	_____._____
0620	662.2040.S Ramp Closure Gates Solar 40-FT	2.000 EACH	_____._____	_____._____
0622	690.0150 Sawing Asphalt	2,680.000 LF	_____._____	_____._____
0624	690.0250 Sawing Concrete	1,758.000 LF	_____._____	_____._____
0626	715.0415 Incentive Strength Concrete Pavement	14,511.000 DOL	1.00000	14,511.00
0628	715.0502 Incentive Strength Concrete Structures	264.000 DOL	1.00000	264.00
0630	801.0117 Railroad Flagging Reimbursment	10,000.000 DOL	1.00000	10,000.00
0632	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	2,500.000 HRS	5.00000	12,500.00
0634	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	3,280.000 HRS	5.00000	16,400.00
0636	SPV.0035 Special 01. Planting Mixture	1,090.000 CY	_____._____	_____._____
0638	SPV.0035 Special 02. Concrete Masonry Special	44.000 CY	_____._____	_____._____
0640	SPV.0060 Special 02. Internal Chimney Seal 1-Piece	11.000 EACH	_____._____	_____._____
0642	SPV.0060 Special 03. Internal Chimney Seal 2-Piece	10.000 EACH	_____._____	_____._____
0644	SPV.0060 Special 04. Sanitary Manhole Cover Type J - Special	4.000 EACH	_____._____	_____._____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0646	SPV.0060 Special 05. Standard Sanitary Pipe Connection	2.000 EACH	_____.____	_____.____
0648	SPV.0060 Special 06. Sanitary Wye 8-Inch Main	8.000 EACH	_____.____	_____.____
0650	SPV.0060 Special 07. Adjusting Water Valve Box	75.000 EACH	_____.____	_____.____
0652	SPV.0060 Special 08. Adjusting Sanitary Manholes	10.000 EACH	_____.____	_____.____
0654	SPV.0060 Special 09. Reconstructing Sanitary Manholes	7.000 EACH	_____.____	_____.____
0656	SPV.0060 Special 12. Pull Box Non Conductive 24x48-Inch	2.000 EACH	_____.____	_____.____
0658	SPV.0060 Special 13. LED Blank Out Sign No Left Turn	1.000 EACH	_____.____	_____.____
0660	SPV.0060 Special 14. LED Blank Out Sign No Right Turn	2.000 EACH	_____.____	_____.____
0662	SPV.0060 Special 15. Daylillies Stella d'Oro	99.000 EACH	_____.____	_____.____
0664	SPV.0060 Special 16. Karl Foerster	30.000 EACH	_____.____	_____.____
0666	SPV.0060 Special 17. Purple Dome Asters	120.000 EACH	_____.____	_____.____
0668	SPV.0060 Special 18. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0670	SPV.0060 Special 19. CPM Progress Schedule and Accepted Revisions	2.000 EACH	_____.____	_____.____
0672	SPV.0060 Special 20. Inlets 2x2.5-FT Special	7.000 EACH	_____.____	_____.____
0674	SPV.0060 Special 21. Cover Plates Temporary	4.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0676	SPV.0075 Special 01. Street Sweeping	100.000 HRS	_____.____	_____.____
0678	SPV.0085 Special 01. Bar Steel Reinforcement HS Special	7,390.000 LB	_____.____	_____.____
0680	SPV.0090 Special 01. Fence Chain Link Polymer Coated 4-FT	186.000 LF	_____.____	_____.____
0682	SPV.0090 Special 02. Concrete Curb and Gutter Integral 18-Inch Type D Modified	4,083.000 LF	_____.____	_____.____
0684	SPV.0090 Special 03. Concrete Curb and Gutter Integral SHES 18-Inch Type D Modified	244.000 LF	_____.____	_____.____
0686	SPV.0090 Special 04. Concrete Curb and Gutter HES 18-Inch Type A Modified	95.000 LF	_____.____	_____.____
0688	SPV.0090 Special 05. Concrete Curb and Gutter 30-Inch Type A Modified	381.000 LF	_____.____	_____.____
0690	SPV.0090 Special 06. Concrete Curb and Gutter HES 30-Inch Type A Modified	138.000 LF	_____.____	_____.____
0692	SPV.0090 Special 07. Concrete Curb & Gutter HES 30-Inch Type A	1,943.000 LF	_____.____	_____.____
0694	SPV.0090 Special 08. Concrete Curb & Gutter SHES 4-Inch Sloped 36-Inch Type R	150.000 LF	_____.____	_____.____
0696	SPV.0090 Special 10. Steel Casing Pipe 42-Inch	50.000 LF	_____.____	_____.____
0698	SPV.0090 Special 11. Removing Sanitary Sewer	290.000 LF	_____.____	_____.____
0700	SPV.0090 Special 12. 8-Inch Sanitary PVC Pipe	900.000 LF	_____.____	_____.____
0702	SPV.0090 Special 13. Sanitary Lateral 4 or 6-Inch	315.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0704	SPV.0090 Special 14. Storm Lateral 4-Inch	400.000 LF	_____.____	_____.____
0706	SPV.0090 Special 15. Televising Storm Sewer	7,892.000 LF	_____.____	_____.____
0708	SPV.0090 Special 16. Storm Lateral 6-Inch	10.000 LF	_____.____	_____.____
0710	SPV.0090 Special 17. Pipe Underdrain Railroad 6-Inch	325.000 LF	_____.____	_____.____
0712	SPV.0090 Special 18. Concrete Curb and Gutter Special 24-Inch Type D	15.000 LF	_____.____	_____.____
0714	SPV.0090 Special 19. Storm Sewer Pipe PVC 12-Inch	128.000 LF	_____.____	_____.____
0716	SPV.0090 Special 20. Storm Sewer Pipe PVC 15-Inch	14.000 LF	_____.____	_____.____
0718	SPV.0105 Special 01. Removing Flasher Standard System STH 55 & CTH OO	LS	LUMP SUM	_____.____
0720	SPV.0105 Special 02. Traffic Signal System Integrator (4650-08-71)	LS	LUMP SUM	_____.____
0722	SPV.0105 Special 03. Furnish & Install Traffic Signal Cabinet Controller & Battery Backup System	LS	LUMP SUM	_____.____
0724	SPV.0105 Special 04. Furnish & Install Emergency Vehicle Preemption System	LS	LUMP SUM	_____.____
0726	SPV.0105 Special 09. Construction Staking Miscellaneous City Utilities	LS	LUMP SUM	_____.____
0728	SPV.0120 Special 01. Water for Seeded Areas	1,001.000 MGAL	_____.____	_____.____
0730	SPV.0165 Special 01. Wall Modular Block Gravity R-44-24	1,405.000 SF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID / Description	Approximate Quantity and Units	Unit Price	Bid Amount
0732	SPV.0165 Special 02. Wall Modular Block Gravity R-44-25	1,230.000 SF	_____.____	_____.____
0734	SPV.0165 Special 03. Concrete Sidewalk 8-Inch	2,690.000 SF	_____.____	_____.____
0736	SPV.0165 Special 04. Salvage Brick Pavers	16.000 SF	_____.____	_____.____
0738	SPV.0165 Special 05. Wall Modular Block Mechanically Stabilized Earth R-44-26	1,085.000 SF	_____.____	_____.____
0740	SPV.0180 Special 01. Concrete Pavement SHES 8-Inch	275.000 SY	_____.____	_____.____
0742	SPV.0180 Special 02. Concrete Pavement SHES 9-Inch	380.000 SY	_____.____	_____.____
0744	SPV.0180 Special 03. Concrete Driveway SHES 8-Inch	186.000 SY	_____.____	_____.____
0746	SPV.0180 Special 04. Concrete Joint Sealing	57,270.000 SY	_____.____	_____.____
0748	SPV.0180 Special 05. Shredded Hardwood Bark Mulch	1,630.000 SY	_____.____	_____.____
0750	SPV.0195 Special 01. Management of Petroleum-Contaminated Soil & Groundwater	750.000 TON	_____.____	_____.____
0752	SPV.0195 Special 02. Backfill Railroad Special	450.000 TON	_____.____	_____.____
0754	SPV.0200 Special 01. Sanitary Manhole	25.300 VF	_____.____	_____.____
	Section: 0001		**Total:**	_____.____
			Total Bid:	_____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE