

HIGHWAY WORK PROPOSAL

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

Proposal Number:

13

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Dane	5992-06-64	WISC 2015 283	City of Madison, Mineral Point Road Midvale Boulevard Intersection	Local Street
Dane	5992-06-74		City of Madison, Mineral Point Road Midvale Boulevard Intersection	Local Street

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

Proposal Guaranty Required, \$ 75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: May 12, 2015 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time October 9, 2015	SAMPLE NOT FOR BIDDING PURPOSES
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, storm sewer, sanitary sewer, water main, HMA pavement, concrete curb and gutter, concrete sidewalk, permanent signing, pavement marking, street lighting, traffic signals.	Date Guaranty Returned
Notice of Award Dated	

**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.

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://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm>. 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://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm> 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.

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://www.dot.wisconsin.gov/business/engrserve/bid-letting-information.htm>. 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

DT1303 1/2006

Wisconsin Department of Transportation

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)

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

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

(Signature of Attorney-in-Fact)

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

DT1305 8/2003

Wisconsin Department of Transportation

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.

[illegible]

DECEMBER 2000

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

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.
4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.
7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

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

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

- (1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Projects 5992-06-64 and 5992-06-74; City of Madison, Mineral Point Road; Midvale Boulevard Intersection; Local Street, Dane 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, 2015 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 (20141107)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate dense, storm sewer, sanitary sewer, water main, HMA pavement, concrete curb and gutter, concrete sidewalk, permanent signing, pavement marking, street lighting, traffic signals 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.

A General

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 10 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.

Work on this project will not be allowed during the following dates in 2015:

- **Wisconsin Badger home football games:** September 12, 19 and 26 and October 3.

B Contractor Coordination and Advanced Notification

Hold prosecution and progress meetings once a week. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work expected to begin within the next two weeks shall attend and provide a written schedule of the next week(s)' operations. The written schedule shall include begin and end dates of specific prime and subcontractor work operations. Invite the City of Madison and Madison Metro Bus representatives to attend the prosecution and progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' schedule, evaluation of progress and pay items, and making revisions if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

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

Contact the City of Madison Refuse Supervisor at (608) 246-4532 to coordinate for refuse collection. Provide access for refuse collection to all properties.

Properties within the project limits receive walk-up mail delivery service. Provide access for mail carriers to deliver to all properties within the project limits.

Coordinate work with private utility contractors performing work as described in the utility article of these special provisions. Provide access for the private utility contractors as required for the completion of the proposed private utility work.

Notify the City of Madison Police and Fire Departments, Dane County Sheriff, Madison Metro and City of Madison Traffic Engineering at least 3 days (72 hours) in advance of all traffic switches and closures of existing streets.

Notify residents at least 2 days (48 hours) prior to restricting access and 3 days (72 hours) prior to closing any access. See the Traffic article of these special provisions for information on property access.

C Construction General

Typical construction sections are provided in the traffic control plans. Conform with the work zone protection as shown in the typical construction sections. Provide 6 feet lateral clearance from the edge of travel lane to the work zone. For short durations, 2 days or less, the lateral clearance may be reduced to a minimum of 4 feet in areas with shallow excavations (less than 24 inches) provided that the excavated areas within 6 feet of the travel lane are backfilled during non-working hours. Provide a maximum 3:1 slope from

the edge of the lateral clearance zone to sub-grade excavations. Limit the length of open utility trenches adjacent to the lateral clearance to 100 feet. Backfill or plate utility trenches adjacent to the lateral clearance zone during non-working hours.

D Construction Staging

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

Stage 1 Construction:

Install temporary traffic signal at the intersection of Mineral Point Road and S. Midvale Blvd.

Install conduit for City of Madison Traffic Engineering fiber optic line within the S. Midvale Blvd. median on the south side of Mineral Point Rd. from Station 49+56 to Station 50+50 Left.

Remove existing pavement markings from west leg of Mineral Point Rd., south side of the east leg of Mineral Point Rd., and from the west side of S. Midvale Blvd (southbound side).

Remove tree designated for removal from S. Midvale Blvd. near Hillcrest Dr. (approximately Station 61+50). Remove existing median and curb and gutter at the south side of the S. Midvale Blvd. and Hillcrest Dr. intersection (Station 61+50 to Station 62+85) and on the southern median at the intersection of Mineral Point Rd. and S. Midvale Blvd. Install temporary pavement in these median locations for stage 2 operations (Station 49+56 to Station 50+50 Left).

Remove concrete islands on Mineral Point Rd. at the intersection with S. Midvale Blvd. and install temporary pavement (Station 14+10 to Station 14+60 and Station 15+65 to Station 16+25)

Place temporary pavement markings for stage 2 operations.

Stage 2 Construction:

All work to be completed during this stage will be on the north half of the east leg of Mineral Point Rd. and the portion of northbound S. Midvale Blvd. north of Mineral Point Rd., including the intersection of S. Midvale Blvd. and Felton Pl. Work to be completed includes street, storm sewer, sanitary sewer, water main, and street light and traffic signal improvements.

Remove trees designated for removal from east terrace of S. Midvale Blvd. between Station 52+00 and Station 52+60.

Remove existing pavement and base material on the north half of the east leg of Mineral Point Rd. and on northbound S. Midvale Blvd. north of Mineral Point Rd. Place and grade crushed aggregate base course. Also remove existing light and signal bases within this area.

Construct sanitary sewer main, structures and laterals, which includes SAS #2, removal of SAS #3755 and new sewer main between them, and laterals between Station 54+00 and Station 56+00.

Construct water main including fittings, valves, and hydrants on Mineral Point Road from approximately Station 15+10 to Station 15+75 and also on South Midvale Boulevard (northbound) from approximately Station 51+30 to Station 53+60.

Construct storm sewer main, structures and inlets at the intersection of S. Midvale Blvd. and Felton Pl. (approximately Station 53+15 to Station 53+45, along S. Midvale Blvd. northbound). Construct storm main, structures, and inlets at the intersection of S. Midvale Blvd. northbound and Mineral Point Rd., which includes the storm sewer between the following structures and/or inlets: EX.4 to 3.1 to 3.0, 4.4 to 4.3 and a portion of 4.3 to 4.0 ending at the stage 2 work limit, and a portion of 5.1 to 5.0 ending at the stage 2 work limit with a temporary connection to the existing storm sewer. Also complete any necessary storm sewer removals in these areas.

Construct traffic signals and controllers at the intersection of Mineral Point Rd. and S. Midvale Blvd. including concrete bases, conduit and wiring, etc. on the north side of Mineral Point Rd. from approximately Station 15+05 (in the S. Midvale Blvd median) to Station 18+50 and on the east side of S. Midvale Blvd. from approximately Station 51+75 to Station 52+30.

Construct electrical conduit, wiring, bases, poles and fixtures for street lighting within the easterly terrace on S. Midvale Blvd. from approximately Station 51+75 to Station 53+60.

Place and grade crushed aggregate base course on the north half of the east leg of Mineral Point Rd. and on northbound S. Midvale Blvd. north of Mineral Point Rd.

Construct curb and gutter, sidewalk and drive aprons on the north half of the east leg of Mineral Point Rd. and on northbound S. Midvale Blvd. north of Mineral Point Rd.

Place lower HMA layer pavement within the project limits on northbound S. Midvale Blvd. from Mineral Point Rd. to the northern project limit. Place 22'-25' wide HMA lower layer pavement on the north half of Mineral Point Rd. from S. Midvale Blvd. to the eastern limits.

Place temporary pavement where needed around manholes, sidewalk ramps, etc.

Place temporary pavement markings for stage 3 operations.

Stage 3 Construction:

All work to be completed during this stage will be on the south half of the east leg of Mineral Point Rd. and the portion of northbound S. Midvale Blvd. south of Mineral Point Rd. Work to be completed in this stage includes street, storm sewer, sanitary sewer, water main, and street light and traffic signal improvements.

Remove existing sanitary SAS 3756-015 and construction SAS#1 on Mineral Point Rd. at approximately Station 15+60.

Construct water main including fittings, valves, and hydrants from approximately Station 50+55 on S. Midvale Blvd. northbound to the southern end of the work in stage 2 at approximately Station 51+30 on S. Midvale Blvd. northbound.

Construct storm sewer main, structures and inlets, including completing pipe crossings of Mineral Point Rd. from the end of work in Stage 2. Complete crossing of Mineral Point Rd. at approximately Station 15+88 to structure 4.0 and construct storm sewer from structure 4.0 to 4.1 and then to 4.2. Also complete the crossing at approximately Station 18+75 to structure 5.0 and construct storm sewer to structure 5.2.

Construct storm sewer inlets and structures within the S. Midvale Blvd. median south of Mineral Point Rd. (from structure EX. 2 to 7.0) and construct storm sewer pipe along S. Midvale Blvd. median to stage 3 limits at approximately Station 50+65, and make a temporary connection to the existing storm sewer. Also construct storm sewer crossing of S. Midvale Blvd. at approximately Station 50+75 from structure 7.0 to 7.1.

Construct traffic signals and controllers at the intersection of Mineral Point Rd. and S. Midvale Blvd. including concrete bases, conduit and wiring, etc. along the south side of Mineral Point Rd. from approximately Station 15+00 (S. Midvale Blvd. median) to Station 16+50.

Remove existing signal or light bases that are not to remain, and construct electrical conduit, wiring, bases, poles and fixtures for street lighting on Mineral Point Rd. from approximately Station 15+95 to Station 16+00.

Remove existing pavement and base material on the south half of the east leg of Mineral Point Rd. and on northbound S. Midvale Blvd. from the southern project limit to Mineral Point Rd. Leave existing pavement in place near the southerly project limit on S. Midvale Blvd. (approximately Station 49+56 to Station 50+05) that is needed to maintain traffic on S. Midvale Blvd. through the median cross-over.

Place and grade crushed aggregate base course and construct curb and gutter, sidewalk and drive aprons on the south half of the east leg of Mineral Point Rd. and on the east side of northbound S. Midvale Blvd. south of Mineral Point Rd.

Place 31 ft. wide lower HMA layer pavement within the project limits on northbound S. Midvale Blvd. from the southern project limits to Mineral Point Rd. Place remaining

lower HMA layer pavement on the south half of Mineral Point Rd. from S. Midvale Blvd. to the eastern limits.

Place temporary pavement where needed around manholes, sidewalk ramps, etc., and to maintain traffic through the Midvale Blvd. cross-over.

Place temporary pavement markings for stage 4 operations.

Stage 3B Construction:

Remove existing sanitary sewer structure SAS 3756-002 and construction SAS#3 at approximately Station 11+59 on Mineral Point Rd. Place temporary pavement as needed around the work area for the construction of SAS#3.

Stage 4 Construction:

All work to be completed during this stage will be on the south half of the west leg of Mineral Point Rd. and the portion of southbound S. Midvale Blvd. south of Mineral Point Rd. Work to be completed includes street, storm sewer, water main, and street light and traffic signal improvements.

Construct water main including fittings, valves, and hydrants from the western project limit on Mineral Point Rd. (Station 10+75) to where the water main work ended during stage 2 at approximately Station 15+05. Extend and reconnect services including any temporary curb stops at the northern boundary of this stage.

Construct storm sewer main, structures and inlets on S. Midvale Blvd. southbound from inlet 2.0 to the tap on the existing storm sewer on Mineral Point Rd. (approximately Station 70+80 to Station 71+14), and also from structure 7.2 to where the storm sewer work ended in stage 3 at structure 7.0 (approximately Station 70+80). Construct structures on Mineral Point Rd. at approximately Station 11+65.

Construct remaining conduit for City of Madison Traffic Engineering fiber optic line from the western limit on Mineral Point Rd. at Station 10+75 to the S. Midvale Blvd. median where the work ended in stage 1 at approximately Station 50+50 on S. Midvale Blvd.

Construct traffic signals and controllers at the intersection of Mineral Point Rd. and S. Midvale Blvd. including concrete bases, conduit and wiring, etc. on the south side Mineral Point Rd. from approximately Station 11+05 to the S. Midvale Blvd. median (approximately Station 15+00), and on the west side of S. Midvale Blvd. from approximately Station 70+50 to Mineral Point Rd., and along the east side of S. Midvale Blvd. southbound, including within the median, from approximately Station 70+50 to Station 71+30.

Remove existing pavement and base material on the south half of the west leg of Mineral Point Rd. and on southbound S. Midvale Blvd. from the southern project limit to Mineral Point Rd. Leave existing pavement in place that is needed to maintain traffic on S. Midvale Blvd.

Place and grade crushed aggregate base course and construct curb and gutter, sidewalk and drive aprons on the south half of the west leg of Mineral Point Rd. and on the west side of southbound S. Midvale Blvd. south of Mineral Point Rd.

Place 30 ft. wide lower HMA layer pavement within the stage limits on southbound S. Midvale Blvd. from the southern project limits to Mineral Point Rd. Place 22'-26' wide lower HMA layer of pavement on the south half of Mineral Point Rd. from the western project limit to S. Midvale Blvd.

Place temporary pavement where needed around manholes, sidewalk ramps, etc.

Place temporary pavement markings for stage 5 operations.

Stage 5 Construction:

All work to be completed during this stage will be on the north half of the west leg of Mineral Point Rd. and the portion of southbound S. Midvale Blvd. north of Mineral Point Rd. Work to be completed includes street, water services, and street light and traffic signal improvements.

Extend and reconnect water services from where the work ended at the northern boundary of stage 4.

Construct traffic signals and controllers at the intersection of Mineral Point Rd. and S. Midvale Blvd. including concrete bases, conduit and wiring, etc. on the south side Mineral Point Rd. from approximately Station 13+85 to the S. Midvale Blvd. median (approximately Station 15+10), and along S. Midvale Blvd. and within median from the northerly limits of stage 4 (approximately Station 71+30) to Station 72+15.

Remove existing pavement and base material on the north half of the west leg of Mineral Point Rd. and on southbound S. Midvale Blvd. from Mineral Point Rd to the northern project limit.

Place and grade crushed aggregate base course, and construct curb and gutter, sidewalk and drive aprons on the north half of the west leg of Mineral Point Rd. and on southbound S. Midvale Blvd. north of Mineral Point Rd.

Place lower HMA layer pavement on southbound S. Midvale Blvd. from Mineral Point Rd. to the northern project limit. Place remaining lower HMA layer of pavement on the north half of Mineral Point Rd. from the western project limit to S. Midvale Blvd.

Place temporary pavement where needed around manholes, sidewalk ramps, etc.

Stage 6 Construction:

Remove temporary pavement from the median on S. Midvale Blvd. on both the northerly and southerly ends of the project. Remove existing pavement on S. Midvale Blvd. south of Mineral Point Rd. and adjacent to the median that was left in place for maintenance of traffic.

Construct remaining storm sewer pipe and structures along the S. Midvale Blvd. median from approximately Station 49+90 to Station 50+65.

Construct remaining electrical conduit, wiring and bases within the S. Midvale Blvd median from approximately Station 47+00 to Station 47+25 and from Station 49+55 to Station 50+50.

Place and grade crushed aggregate base course.

Construct curb and gutter and sloped median noses on both the northern and southern medians on S. Midvale Blvd.

Place remaining lower HMA layer pavement on northbound and southbound S. Midvale Blvd. adjacent to the median on the south side of Mineral Point Rd.

Stage 7 Construction:

Remove temporary asphalt pavement from around manholes and sidewalk ramps.

Place upper HMA layer of pavement within the project limits. Paving work is to either be completed during off-peak travel hours, which are from 9:00 AM to 3:30 PM, on weekdays or during a weekend with work hours coordinated with the University of Wisconsin Football schedule and game time.

Install permanent signing and pavement markings.

Complete any remaining finishing items, including seeding or any other miscellaneous work.

4. Traffic.

A General

Maintain one lane of traffic in each direction on Mineral Point Road and Midvale Boulevard at all times during construction.

The project includes temporary street lights and traffic signals. Maintain existing traffic signals and functionality of the lighting system during the project. Maintain existing traffic signals until temporary traffic signals are in place and operating at that intersection. The City of Madison Traffic Engineering department will set timing of signals after the contractor has installed the temporary and permanent signals.

Place one portable changeable message sign at each of the four legs of the intersection for two weeks prior to construction and during the first two weeks of construction, until commuters' alternate traffic routes due to construction are established. Place the PCMS's on Midvale Boulevard in the parking lane. Place the PCMS's on Mineral Point Road in the terrace.

Construct Midvale Boulevard and Mineral Point Road in stages in order to maintain one lane of traffic in all directions. Each direction of traffic will have one combined through and right turn lane. Allow traffic on the lower layer of asphalt pavement during construction before placement of the upper layer. The final layer of HMA pavement will be placed after all curb and gutter and lower pavement layers have been placed. The existing pavement will be maintained for as long as possible.

Construction staging descriptions are as follows:

Stage 1:

- Reduce Midvale Boulevard to one southbound lane and close the northbound left turn lane, south of the intersection of Mineral Point Road and just south of the intersection with Hillcrest Drive.

Stage 2:

- Reduce Midvale Boulevard to one lane in each direction with both directions of traffic on the west side of the median.
- Reduce Mineral Point Road to one lane of traffic in both directions with both lanes on the south side of the existing centerline.
- Restrict all left turn movements at all times.
- Split phase signal timing for each direction of traffic.

Stage 3:

- Traffic on Midvale Boulevard remains the same as in Stage 2.
- Reduce Mineral Point Road to one lane of traffic in both directions with both lanes on the north side of the existing centerline.
- Restrict all left turn movements at all times.
- Split phase signal timing for each direction of traffic.
- Stage 3b:
- Shift Mineral Point Road traffic to the outside lanes, west of the Midvale Boulevard intersection.

Stage 4:

- Westbound Mineral Point Road traffic remains the same as Stage 3b.
- Shift eastbound Mineral Point Road traffic to the north side of the centerline prior to Hillcrest Drive.
- Both directions of Midvale Boulevard traffic on east side of median.
- Southbound Midvale Boulevard to use crossovers constructed in Stage 1.
- Restrict all left turn movements at all times.

Stage 5:

- Midvale Boulevard traffic remains the same as Stage 4.
- Shift eastbound Mineral Point Road traffic to the south side of the centerline prior to Hillcrest Drive.
- Both directions of Mineral Point Road traffic on the south half of the street.
- Restrict all left turn movements at all times.

Stage 6:

- Reduce Midvale Boulevard to one southbound lane, and close the northbound left turn lane, south of the intersection of Mineral Point Road.
- Reduce Midvale Boulevard to one southbound lane, and close the northbound left turn lane, just south of the Hillcrest Drive intersection.
- Restrict all left turn movements at all times.

Stage 7:

- Moving lane closures during surface paving operations.

B Residential Property Access

Residential driveways may be closed for a maximum of 10 calendar days while the driveway is reconstructed.

Notify residents in writing at least 2 days (48 hours) prior to restricting access to any driveway. Notify residents in writing at least 3 days (72 hours) prior to closing any access to any driveway.

Provide emergency vehicles with adequate access to all properties along the project at all times.

Provide access for mail delivery to all properties. Mail delivery in this area is at or near the front door of the properties.

Notify Katie Sellner with Madison Metro Transit at (608) 261-9633, ksellner@cityofmadison.com, at least one week prior to any bus stop access change or traffic switch.

Install temporary no parking signs to facilitate the traffic control plan and as necessary to complete the work within the contract. Contact John Villareal with the City of Madison Parking Utility, (608) 267-8756, jvillareal@cityofmadison.com, to arrange for delivery of the temporary no parking signs, at least 3 working days prior to placing the signs. Post

the signs in accordance to the City of Madison Police Department Guidelines for temporary no parking restrictions for construction or special events. The guidelines can be found at the link listed below. Obtaining and installing temporary no parking signings is incidental to the traffic control lump sum bid item.

http://www.cityofmadison.com/business/pw/documents/guidelines_temporarynoparkingrestrictions.pdf

C Pedestrian Access

Maintain sidewalk at all times except under direction of the engineer. In areas of sidewalk construction, provide a temporary surface for pedestrian access at all times. The temporary surface shall meet Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements and shall consist of temporary asphaltic surface, any grade of concrete, skid resistant steel plating, or alternative material as approved by the engineer. Gravel or base course material is not acceptable.

Maintain pedestrian movements crossing the construction zone at all times, unless otherwise directed by the engineer. Pedestrian crossings of intersections shall meet requirements of the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and shall consist of temporary asphaltic surface, any grade of concrete, skid resistant steel plating, or alternative material as approved by the engineer. Gravel or base course material is not acceptable. Maintain ADA accessible pedestrian walkways that are free from mud, sand, and construction debris. The Temporary Crosswalk/Sidewalk bid item is payment for maintaining crosswalks through the construction zone where existing crosswalks exist. Any closures of sidewalk shall be approved by the engineer and shall conform to the traffic control plan. Crosswalks outside of the construction zone staging shall remain completely open.

5. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220. 107-065 (20080501)

There are underground and overhead utility facilities located within the project limits. There are known utility adjustments required for the construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of underground facilities and maintain code clearance from overhead facilities at all times. Adjustments in the location of certain described items may be necessary, as directed by the engineer, when it becomes evident that a utility conflict could occur. In the event of a conflict, each utility will require a minimum of 72 hours notice to investigate the conflict and determine a solution. The length of time to relocate any facilities will be dependent on the facility and the nature of the conflict.

Abandoned facilities may exist within the project limits. Removal by the contractor of any abandoned facilities necessary to complete the proposed work, including plugging the remaining ends of the facility, is considered incidental to the contract. Contact each utility company individually to verify if any can be expected and to possibly obtain facility maps for approximate locations.

AT&T Wisconsin (Telecommunications and Fiber)

AT&T Wisconsin maintains underground cable along the north side of Mineral Point Road from the western project limit to approximately Station 12+30. Estimated depth of AT&T Wisconsin buried facilities is 36-inches. AT&T also maintains an underground fiber optic line along the north side of Mineral Point Road from the western project limit to the eastern project limit. The package is (8) 2-inch HDPE conduits arranged in 2 rows with 4 columns. Approximate dimensions of the entire package is 2 feet by 2 feet.

AT&T Wisconsin also maintains overhead facilities crossing Mineral Point Road at Station 11+50, and along the north side of Mineral Point Road approximately from Station 13+25 to Station 13+85.

AT&T will be relocating pedestal 4414 M back 2' from the face of curb during construction at approximately Station 11+60. Provide AT&T a minimum of 5 working days notice prior to when they will be able to complete this work. The work will be isolated to the area around the pedestal and will take a maximum of 5 days to complete.

AT&T's overhead cables that are currently on MG&E poles will relocate to new MG&E poles once they are placed. AT&T will work with MG&E in placing poles around AT&T's 8 duct package. Transfer of overhead utilities will require 5 days, but this work will take place prior to construction.

Charter Communications (Telecommunications)

Charter Communications maintains an overhead cable line along the north side and aerial service crossings along the entire length of Mineral Point Road. Overhead lines also run along the eastern side of northbound South Midvale Boulevard. Charter Communications facilities are located on MG&E utility poles.

These MG&E utility poles will be relocated along the north side of Mineral Point Road. This work will be completed prior to construction and Charter Communications utilities will be relocated to these new pole locations.

City of Madison Water Utility

The city of Madison has underground water facilities running throughout the project limits. Replace water main and lateral facilities, and abandon old water main within the project limits under this contract as shown in the plans.

City of Madison Engineering (Sanitary Sewer)

The city of Madison has underground sewer facilities running the entire length of the project limits. The existing sewer main will remain in place. Replace sewer main, structures and lateral facilities, including abandonment of existing sewer facilities, within the project limits under this contract as shown in the plans.

City of Madison Traffic Engineering (Traffic Signals and Street Lights)

The city of Madison has underground signal and lighting facilities the entire length of the project limits. Existing traffic signals will be upgraded at the intersection of South Midvale Boulevard and Mineral Point Road. The city also has street lights on both sides of Mineral Point Road and South Midvale Boulevard the entire length of the project which will be replaced as necessary.

This project includes temporary street lights and traffic signals and a new traffic signal at Mineral Point Road. Maintain signals and functionality of the lighting system during the project. The City of Madison Traffic Engineering department will set timing of signals once the contractor has installed the temporary and permanent signals.

Coordination with City of Madison Traffic Engineering will be required during the project.

Madison Gas & Electric (Gas)

Madison Gas & Electric maintains an underground gas distribution system for a majority of the project length. A 2-inch steel gas main runs on the north side of Mineral Point Road from the western project limit to Station 13+60. A 2-inch plastic gas main runs from the southern project limit of northbound South Midvale Boulevard and follows the eastern street corner to run down the southern side of Mineral Point Road to Station 17+00. A 4-inch steel gas main runs under the terrace on the south side of the western leg of Mineral Point Road from the western project limit to Station 14+25. A 6-inch steel gas main runs beneath the medians of South Midvale Boulevard from the southern project limit to the northern project limit. An 8-inch steel gas main runs along the north side of Mineral Point Road from the western project, then runs north at the intersection with South Midvale Boulevard and diagonally crosses the southbound lanes to run along the median to the northern project limit.

MG&E plans to replace the existing gas main on the south side Mineral Point Road from the west project limit (Station 10+75) up to South Midvale Boulevard (Station 14+50). It is expected that this work will take place prior to construction. The new gas main will be located adjacent to the existing gas main, approximately 3' to the south. The new gas main in this area will be 4" plastic.

There are no apparent conflicts with the existing MG&E gas mains. MG&E Gas will coordinate with the contractor in order to add anodes inside of the project limits to existing steel mains once the pavement has been removed. It is anticipated that MG&E will install approximately 6 anodes within the project limits. The steel gas mains are located on the north side of the west leg of Mineral Point Rd. and on the west side of the

median of S. Midvale Blvd. The contractor will need to coordinate this work with MG&E including providing time and space for them to complete this work. Provide a minimum of 5 working days notice to MG&E prior to when they can perform their work, and each anode will take approximately 2 days to install.

Madison Gas & Electric (Electric)

Madison Gas & Electric maintains an overhead electric distribution system the entire length of the project.

Relocation of existing utility poles in conflict with proposed street plans will be moved prior to construction. The poles at the following stations will be relocated by trenching the pole over or replacing with a new pole located a minimum of 2' from the proposed face of curb:

- Station 11+62, 24' Left
- Station 16+80, 30' Left
- Station 18+13, 27' Left
- Station 19+25, 25' Left

All utility pole relocations will take place prior to construction.

TDS Metrocom (Fiber Optic)

TDS Metrocom has overhead facilities on MG&E owned poles that run along the north side of the western leg of Mineral Point Road and tie into an underground fiber optic line that has a manhole at Station 14+30. The fiber optic line then runs south from the junction and underneath the sidewalk on southbound South Midvale Boulevard to the southern project limit. The fiber optic line also runs east after the manhole and then north to run beneath the median on South Midvale Boulevard to the northern project limit. The package is (2) 1.25-inch HDPE conduits north of the manhole and (1) 1.25-inch HDPE conduit south of the manhole and all are approximately 5 feet deep. Overhead TDS facilities are located on MG&E utility poles.

For the fiber cable along east side of median of South Midvale Blvd from Station 51+75 to 55+00, TDS will plow to expose cable and move 5' to the west at a depth of 5', staying west of the catch basin at 51+85, left 25.7 ft. TDS will then be east of the catch basin at 53+42, left 26.8 ft. and above existing/proposed storm and below the proposed grade of the median on South Midvale Blvd. The fiber cable crossing Mineral Point Road to the west of South Midvale Boulevard at Station 14+54 is to remain in place. Overhead fiber along north side of Mineral Point Road is to be transferred to all new MG&E poles after their relocations are complete. Estimated time for completion is 2 days. All relocation work for TDS facilities will take place prior to construction.

US Signal

U.S Signal maintains an overhead cable line along the north side and overhead service crossings along the entire length of Mineral Point Road. Overhead lines also run along the eastern side of northbound South Midvale Boulevard. U.S Signal facilities are located on MG&E utility poles.

These MG&E utility poles will be relocated along the north side of Mineral Point Road. Transfer of US Signal utilities will occur when relocated MG&E poles are placed prior to construction under this contract.

6. Hauling Restrictions.

Conduct operations in a manner that will cause a minimum of inconvenience to the free flow of traffic on roadways carrying Mineral Point Road and S. Midvale Boulevard traffic at all times.

Use City of Madison designated truck routes for material haul roads as detailed in standard spec 618.

Equip all vehicles traveling on public roads, hauling materials or removals that are subject to spillage, by either wind or vibration, with tailgates and adequate sideboards. Use canvas covers and any other protective devices to prevent spillage as determined necessary by the engineer. Comply with all local ordinances.

7. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 7:00 PM until the following 7:00 AM, Monday through Saturday and from 7:00 PM on Saturdays until the following 10:00 AM on Sundays, unless prior written approval is obtained from the engineer.

107-001 (20060512)

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

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

105-001 (20140630)

9. Referenced Construction Specifications.

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

Conform to the referenced construction specifications for the following:

- Sanitary sewer items, including main, structures, laterals, etc.
- Water main items, including pipe, fittings, valves, hydrants, etc.

105-002 (20130615)

10. Signing, Removing Signs and Removing Small Sign Supports.

The City of Madison Traffic Engineering Division will remove existing City of Madison signs and sign supports. Contact Phil Nehmer, City of Madison Traffic Engineering at (608) 267-1960 at least five days prior to starting construction to arrange to have signs removed. Small sign support bases are to be removed and disposed of by the contractor. Removal of small sign support bases is incidental to the Bid Item – Common Excavation.

After installation of permanent signs has been completed, the City of Madison Traffic Engineering Division will mark curb locations to be painted under Bid Item – Pavement Marking Curb Epoxy.

11. Preservation of Existing Trees.

Take precautions during construction so as not to disfigure, scar, or impair the health of any tree on public or private property that is not marked for removal. Do not place, park, or store on the surface of any unpaved areas within the drip lines of trees any equipment, vehicles, or materials. Do not deposit any chemicals, rinsates, or petroleum products within the drip lines of trees. The drip line is defined as the outermost extent of the tree canopy, extended vertically to the ground surface.

Preconstruction Pruning

Trees larger than 10 inches DBH will be pruned by City Forestry to an approximate height of 14 feet above the road wherever construction equipment is expected to invade the tree crown. Pruning will be done according to ANSI A300 tree pruning specifications. Protect all remaining limbs from damage by construction equipment.

Excavations

Do not rip or pull roots out towards the trunk of a tree while excavating. The use of an excavator, backhoe, or loader to cut roots is not acceptable. Immediately cut damaged roots over 1/2-inch in diameter in back of the damaged section. Make cuts with an ax, lopping shears, chainsaw, stump grinder, or other means that will produce a clean cut. Cover any exposed roots as soon as excavation and installation are complete. Root pruning will be paid under the item Root Pruning Existing Terrace Trees, Item SPV.0060.01.

Underground Utility Excavation and Installation

Do not grade, excavate, or disturb the area within 5 feet of any tree measured from the outside edge of the tree at DBH (Diameter Breast Height) along the length of the terrace, without permission from the City Forestry Representative.

The engineer and the City Forestry Representative will review laterals that are in close proximity to terrace trees on a case by case basis. The engineer may elect to terminate lateral or service installation prior to conflict with tree roots (i.e. at the curb line). For laterals that continue to the property line, use construction methods that minimize tree damage as directed by the engineer. The engineer may allow boring under or within the 5 feet protection zone.

Curb and Gutter Removal and Replacement

Provide extra care to root masses that grow very close to, up to or over the curb during excavation. The City Forestry marks "NRC" (No Root Cutting) next to trees with roots that could be damaged in curb removal.

Sidewalk Removal and Replacement

Provide extra care to root masses that grow very close to the sidewalk during excavation. The City Forestry marks "NRC" (No Root Cutting) next to trees with roots that could be damaged in sidewalk removal.

Terrace Restoration

Do not mechanically grade within 5 feet of any tree. If in the root protection zone, grade with hand implements in a manner that will minimize damage to the root system.

Damages

Failure to follow the proper safeguards of this specification, or the Root Pruning Existing Terrace Trees Bid Item will result in the following cost recovery charges and liquidated damages assessed against the contractor:

Where construction damage occurs causing or resulting in removal of the tree, the following damages will be assessed against the contractor:

- The costs associated with removing the tree including wood disposal.
- The costs associated with removing the stump to a depth of at least 24 inches below the ground.
- The costs associated with replanting a replacement tree that is balled and burlapped and a minimum caliper diameter of 3 inches. The species and replanting location will be determined by the City Forestry.
- The value of the existing tree which will equal \$125.00 per trunk diameter inch, measured at 4.5 feet above ground.

For bark scraping and broken branches the following damages will be assessed against the contractor:

- The costs associated with pruning broken branches, including wood disposal.
- Loss of limb or broken branch larger than 3 inches in diameter: \$150.00 for each occurrence. Breakage of limbs that are less than 14 feet above the roadway shall be reviewed on a case by case basis.
- Damage to trunk or bark larger than one square foot in area: \$400.00 each area.

For root cutting or excavation within the root protection zone the following damages will be assessed against the contractor:

- For mechanical excavation within 5 feet of a tree, along the length of the terrace or sidewalk of the tree, including ripping of roots back towards the trunk, without prior permission from City Forestry Representative: \$150.00 for each occurrence.
- For mechanical excavation beyond 6 inches or 1 foot of the proposed curb installation, as determined by the size of the existing tree and terrace width, including ripping of roots back towards the trunk: \$150.00 for each occurrence.

12. **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, 305, and 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.
- (3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.
- (4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
 1. Production and placement control and inspection.
 2. Material sampling and testing.
- (5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's website at: <http://roadwaystandards.dot.wi.gov/standards/cmm>.

A.2. Contractor Testing for Small Quantities

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.
- (2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
 1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.

2. Divide the aggregate into uniformly sized sublots for testing as follows:

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

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

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

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

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B. Materials

B.1. Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.
- (2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:
1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
 3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
 4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
 5. Descriptions of stockpiling and hauling methods.

6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2. Personnel

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

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

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

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

B.3 Laboratory

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

Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: 608-246-5388
<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

- (1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute

tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

- (1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.
- (2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:
 1. Contractor individual QC tests.
 2. Department QV tests.
 3. Department IA tests.
 4. Four-point running average of the QC tests.
- (3) Except as specified under B.8.2.1 for nonconforming QV tests, include only QC tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 Contractor Testing

- (1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.
- (2) Test gradation once per 3000 tons of material placed. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.
- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.
- (4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.
- (6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

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

Gradation	AASHTO T 27
Material finer than the No. 200 sieve	AASHTO T 11
- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.
- (3) Maintain a separate control chart for each sieve size specified in standard spec 305 or 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 2 consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
 1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
 2. For fracture, increase the QC testing frequency to at least one test per gradation test.
- (3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.
- (4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.
- (5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
 1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
 2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
 3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
 1. One non-random test on the first day of placement.
 2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.
- (3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.
- (4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

- (1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Reviewing required worksheets and control charts.
 6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C. (Vacant)

D. (Vacant)

E. Payment

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the non-performance of QMP administrative item.
- (2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20100709)

13. HMA Pavement.

Perform this work in accordance to standard spec 460 and as hereinafter provided.

Provide to the engineer, the results from the Freeze / Thaw Test (AASHTO T103) for quarried course aggregates used in the work produced from limestone / dolomite sources. The maximum percent loss for aggregates retained on the No. 4 sieve shall be 4 percent.

14. Reheating HMA Pavement Longitudinal Joints, Item 460.4110.S.

A Description

This special provision describes reheating the abutting edge of the previously compacted layer in the adjacent lane while paving mainline asphalt pavements.

B (Vacant)

C Construction

C.1 Equipment

Provide a self-contained heating unit that heats by convection only. Do not use forced air to enhance the flame. Provide a fireproof barrier between the flame and the heater's fuel source. The heater must produce a uniform distribution of heat within the heat box. Provide automatic controls to regulate the heater output and shutoff the heater when the paver stops or the heater control system loses power.

Mount the heater on the paver inside the paver's automatic leveling device.

C.2 Reheating Joints

Evenly reheat at least an 8 inch (200 mm) wide strip of the previously compacted surface layer in the adjacent lane as follows:

- Reheat the joint to within 60 degrees F (15 degrees C) of the mix temperature at the paver auger. Measure joint temperature immediately behind the heater.

The engineer may allow the required joint reheat temperatures to be cooler than specified to adjust for weather, wind, and other field conditions. Coordinate the heater output and paver speed to achieve the required joint reheat temperature without visible smoke emission.

D Measurement

The department will measure Reheating HMA Pavement Longitudinal Joints by the linear foot, acceptably completed, as measured along each joint for each layer placed.

E Payment

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

ITEM	DESCRIPTION	UNIT
460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF

Payment is full compensation for furnishing all the work required under this bid item.
460-015 (20140630)

15. General Provisions for Storm Sewer.

Construct all round and elliptical shape storm sewers in accordance to the pertinent provisions of standard specs 608, 610 and 611 as shown on the plans, and as follows.

Seal the joints for reinforced concrete pipe with either mastic or internal rubber gaskets as described in standard specs 607.2.3 and 607.2.4. The use of mortar as a pipe joint method is prohibited.

Lay all round and elliptical shape storm sewers on a 6-inch minimum thick bed of Base Aggregate Dense Graded 1 1/4-Inch in accordance to standard spec 305.2.1 or when water is encountered, No. 1 coarse concrete aggregate in accordance to standard spec 501.2.5.4. Bedding for round and elliptical pipe shall be incidental to the installation costs of the round or elliptical pipe.

Dewatering trenches shall be incidental to the unit price for all storm sewer pipe installation.

Construct all inlets and manholes rectangular in shape unless otherwise approved by the City of Madison storm sewer design engineer. Construct catch basins, manholes and inlets using only precast or cast in place concrete masonry options. All structures shall be reinforced concrete. Concrete brick and block options are prohibited.

Construct all structures (manholes and inlets) on a 12-inch minimum thick bed of Base Aggregate Dense Graded 1 1/4-Inch in accordance to standard spec 305.2.1 or when water is encountered, No. 1 coarse concrete aggregate in accordance to standard spec 501.3.6.4.5, and as shown on the plans. Bedding for structures shall be incidental to the installation costs of the structure.

Bid all structures (manholes and inlets) as field poured, and construct all structures as field-poured unless the contractor receives approval of the City of Madison design engineer to precast the structures. This approval will not be given until it can be confirmed that the proposed design will fit existing conditions including possible utility conflicts. No precast approval shall be authorized for any structure until such time as all possible conflicts that could affect the structure/structures in question have been reviewed. The City of Madison design engineer will be allowed a minimum of three working days to review all relevant information.

Submit shop drawings for all precast structures to the City of Madison design engineer. The city design engineer shall have three days to approve or reject the shop drawings. Under no circumstance shall a precast structure be brought to or used on the construction site without a written approval of the shop drawing for that structure prior to its use on site.

Do not use station and offset for inlet structures, as given on the storm plans, for final layout of the structure. Determine the curb line in the area of the inlet prior to pouring the inlet structure to assure proper location of the inlet relative to the curb line.

The costs to connect storm sewer to existing structures or pipes and the costs to plug pipes for future use including tapping the hole, placing the pipe and sealing the joint, furnishing and installing a plugging device as specified above, will be included in the unit price bid for the pipe of the type, class and diameter used. The cost for a concrete collar for storm sewer, where shown on the plans or directed by the engineer, will be paid for separately.

Per traffic control specification, a temporary connection between existing and proposed storm sewer is required for stage 3. This work is incidental to storm sewer.

The costs to remove all abandon utility pipes within the storm sewer pipe trench or structure excavation will be included in the unit price bid for the pipe of the type, class and diameter used. The cost includes installing a concrete plug in the portion of the abandon pipe that remains in place after completion of storm sewer trench.

Carefully remove and stockpile all existing inlet, manhole, and catch basin covers that are not being adjusted and reused on the project at a location on the right-of-way outside the construction limits for pickup by City of Madison personnel. Contact Jim Martinson, City of Madison Department of Public Works at (608) 267-1973 to schedule pickup.

Remove from the right-of-way and dispose of all frames or grates and all other material that the city does not want.

Contact Information:

Eric Dundee, P.E.
City Engineering
Phone: (608) 266-4913
E-mail: edundee@cityofmadison.com

16. General Provisions for City of Madison Sanitary Sewer.

Work Sequence

Contact the identified person below 10 working days prior to starting work on the sanitary sewer and provide a schedule of operations. Construct sanitary sewer main and laterals in stages in accordance to the traffic control plan and in proper coordination with construction for activities adjacent to the sanitary sewer main.

Provide bypass pumping of sanitary sewage to maintain sanitary sewer service when new sewer access structures are being constructed over the existing mains.

Shop Drawings and Samples

Submit shop drawings and samples to the engineer and City of Madison Engineering Department as required in these Special Provisions and for the following:

- Sanitary Sewer Pipe Material
- Sanitary Sewer Access Structure Casting and Manhole Covers Type J Special
- Sanitary Sewer Access Structure (4-Foot Diameter, 5-Foot Diameter)
- Sewer Electronic Markers
- Select Fill for Sanitary Sewer

Contractor's responsibilities include:

- Review shop drawings and samples prior to submittal;
- Determine and verify field measurements, field construction criteria, catalog numbers and similar data, and conformance with specifications;
- Coordinate each submittal with requirements of work and of Special Provisions;

Notify city engineer or city engineer's representative, in writing, at time of submittal of deviations in submittals from requirements of special provisions.

NOTE: Do not begin any fabrication or work listed above as requiring shop drawings or samples until return of submittals with city engineer's or city engineer representative's approval.

Provide shop drawings containing the following:

- A. Date of submittal and dates of previous submittals.
- B. Project title and number.
- C. Contract identification.
- D. Names of contractor, supplier, and manufacturer.
- E. Identification of product, with identification numbers, and drawing and specification section numbers.
- F. Field dimensions clearly identified.
- G. Identification of details required on drawings and in specifications.
- H. Manufacturer and model number (give dimensions and provide clearances).
- I. Relation to adjacent or critical features or work or materials.
- J. Applicable standards, such as ASTM, and identification of deviations from contract documents.
- K. Source of samples and material properties.
- L. Identification of revisions on re-submittals.
- M. Eight-inch and three-inch blank space for contractor and city engineer stamps.
- N. Contractor's stamp, signed, certifying to review of submittal, verification of products, field measurement, field construction criteria, and coordination of information with submittal with requirements of work and Special Provisions.

If required by the city engineer or city engineer's representative, resubmit shop drawings that include the following:

- A. Corrections or changes from previous submittals as indicated by city engineer or city engineer's representative. Re-submittals are required until approved.
- B. Shop Drawings and Product Data: Review initial drawings or data and resubmit as specified for initial submittal. Indicate changes, which have been made other than those requested by city engineer.

Testing and Acceptance: Submit materials production and field placement testing results as required by the City of Madison Standard Specifications for Public Works Construction-Latest Edition or as required by the city engineer or city engineer's representative. Final acceptance of sanitary sewer and related materials such as backfill, concrete, slurry, etc. will come from the city engineer or city engineer's representative.

Allow the City of Madison to sample/test materials as requested. Provide complete copies of required submittals as follows:

Shop Drawings:	Six copies
Sampling/Testing Results:	Three copies

Deliver required copies of submittals and testing results to Mark Moder, City of Madison, Department of Public Works, City-County Building, Room 115, 210 Martin Luther King Jr. Boulevard, Madison, Wisconsin 53710. Or e-mail transmittal materials to mmoder@cityofmadison.com. Use of e-mail in lieu of hard copy transmittal is an accepted transmittal method of materials for approval.

The city engineer or city engineer's representative will review and return shop drawings to the contractor within one week of date of receipt.

Protection of Sewers: Take adequate measures to prevent impairment of operation of existing sanitary sewer and storm sewer systems. Prevent construction material, concrete, earth, or other debris from entering sewer or sewer structure.

Divert sewage flow interfering with construction to sanitary sewers leading away from construction area. Prior to commencing excavation and construction of work impacting existing city sewer, submit to city engineer for review, detailed plans, including routing and connections, required to handle and dispose of sanitary wastes. By reviewing the plan, the city engineer neither accepts responsibility for adequacy thereof nor for damages to public or private property resulting there from, such responsibilities remain with the contractor.

Sanitary sewer damaged or removed during construction, which is to remain in service, will be restored or replaced to original material and workmanship used for original construction.

All City of Madison manhole castings removed from sewer access structures (removed, abandoned, or swapped out with a casting elevation adjustment) will be delivered to City Engineering's Service Building, 1600 Emil Street, Madison, WI 53713.

In accordance to the City of Madison Standard Specifications for Public Works Construction – Latest Edition, “Pipe to be removed that is in the same trench as a new pipe will not be compensated as remove pipe and will be considered to be incidental to the new pipe installation.” Same trench will considered to be any pipe located with 3’ horizontally of the pipe being installed. This shall include abandoned utility pipes encountered within the sanitary sewer pipe trench or sewer access structure excavation.

The costs to remove all abandoned utility pipes within the sanitary sewer pipe trench will be included in the unit price bid for the pipe of the type, class and diameter used. This cost includes installing a concrete plug in the portion of the abandon pipe that remains in place after completion of sanitary sewer trench.

City of Madison (sanitary sewer) has underground facilities located within the project area. Relocation of the underground facilities will be accomplished as part of contract 5992-06-74 by the contractor. Existing facilities and anticipated proposed relocations are as follows:

Existing Facilities:

- Midvale Blvd- East Terrace whole project
-West Terrace: North of Felton Place.
- Mineral Pont Road
- Center of Street Station 10+00 to Station 11+59,
- Eastbound Street Terrace (south side of street): Station 11+59 to Station 13+96
- Eastbound Parking lane (Station 15+60 to Station 18+96)

Proposed Relocations

- Midvale Blvd- –Northbound Terrace North of Felton Place: Connect laterals from sewer below sidewalk to sewer main in Terrace.

Sanitary Sewer removals, replacements, and adjustments are included as part of the project as shown on the plans. Coordinate operations with the City of Madison. Contact Mark Moder (608) 261-9250.

17. General Provisions for City of Madison Water Main.

Contact Information:

Madison Water Utility
Adam Wiederhoeft, P.E.
Phone: (608) 261-9121
E-mail: awiederhoeft@madisonwater.org

Work Sequence: Contact the identified person above at least 10 working days prior to starting water main work and provide a schedule of operations.

Construct water main and water service laterals in stages in accordance to the traffic control plans and in proper coordination with construction activities adjacent to the water main. Note that water mains and service laterals crossing traffic control/staging limits may require temporary flushing appurtenances and/or temporary fittings to accommodate the staged construction. Any such installation and/or removal of temporary flushing devices or temporary fittings are considered to be incidental to the water main and service lateral construction.

As construction staging and sequence allows, disinfect the new water mains. Madison Water Utility will flush and test all newly installed water mains. Coordinate as necessary with Madison Water Utility for these operations. After the water main has passed bacteriological and pressure testing, install replacement water services and make connections to the existing water system. Water main installation will consist of strategic abandonment of the existing water main. Abandon existing water main only after the new water main has passed all required testing, new main has been properly brought online into the system and all service laterals, except any called to be abandoned, have been relocated to the new main.

Keep valves at connection points between the new water main and the existing water main closed until the new water main has passed all testing. Where new valves need to be opened to fill the new water main for testing and flushing, arrange sequencing so to preclude backflow of any water from the new water main to the existing water main.

Following the installation of replacement water services and the connection of replacement water main to the existing water main at locations noted on the plans, cut off and drain the existing main. Plug or bulk-head the open ends with concrete and abandon the existing main in place. This work is considered incidental to the new water main installation.

Temporary Flushing Hydrants: Determine the need for and location of temporary flushing hydrants based on the phasing and sequencing of water main installation. The furnishing, installation, use and abandonment of temporary flushing hydrants is incidental to water main installation. Do not permanently install any hydrant used as a temporary flushing hydrant more than one time.

Temporary Air Bleed: Where any installation of proposed watermain does not have an adjacent hydrant or other means of bleeding air from the main, install a temporary 2-inch corporation stop at the high point of the main. Remove the stop and plug the opening after successful completion of water main testing. Installation, use, maintenance, removal and plugging of corporation stops for use as air bleeding devices are considered incidental to the installation of water main.

Mineral Point Rd North Service Laterals: Tap both service laterals that will extend from the new water main across the north Mineral Point Rd lanes during installation of the proposed water main in the south lanes. Stub the laterals at the traffic control/stage limits with a curb stop with the valve in the off position and at the elevation required to clear any north corridor utilities. Make the final service connection from the curb stop, leaving the curb stop underground without a box with the valve in the open position. When making the final connection, ensure the previously installed copper is still securely connected to the curb stop and that the lateral has not been compromised during construction. Repair any damaged laterals or leaking connections at no additional cost to the department or the city. The furnishing and installation of the curb stops and couplings are considered to be incidental to the respective service bid items.

Location of Existing Water Service Laterals: The horizontal location and size of all water laterals indicated on the plans is taken from surveys, approximate measurements, and the city's available records. These records are not guaranteed to be accurate in all cases and do not indicate at what depths these laterals are located. As such, determine the location and size of the existing laterals before making a tap into the new water main. Follow the plans to determine which services are to be abandoned, reconnected, extended, or replaced to the property line.

Location of Existing Water Facilities: The horizontal and vertical location and size of all existing water mains indicated on the plans is taken partially from surveys, approximate measurements, and the city's available records. These records are not guaranteed to be accurate in all cases. Due to the unverified depth and location of existing pipelines, alteration of the lines and grades shown on the plans for new pipelines where connections are to be made to existing pipelines may be necessary. Notify the engineer of locations where alterations of the lines and grades shown are necessary so that an acceptable solution can be determined.

18. **Adjusting Manhole Covers.**

This work shall be according to the pertinent provisions of standard spec 611, as shown on the plans, and as hereinafter provided.

Revise standard spec 611.3.7 by deleting the last paragraph.

Set the manhole frames so that they comply with the surface requirements of standard spec 450.3.2.9. At the completion of the paving, a 6-foot straightedge shall be placed over the centerline of each manhole frame parallel to the direction of traffic. A measurement shall be made at each side of the frame. The two measurements shall be averaged. If this average is greater than 5/8 inches, reset the manhole frame to the correct plane and elevation. If this average is 5/8 inches or less but greater than 3/8 inches, the manhole frame shall be allowed to remain in place but shall be paid for at 50 percent of the contract unit price.

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.

611-005 (20030820)

19. Cover Plates Temporary, Item 611.8120.S.

A Description

This special provision describes furnishing, installing and removing a steel plate to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials

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

C (Vacant)

D Measurement

The department will measure Cover Plates Temporary, acceptably completed in place, as units.

E Payment

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

ITEM	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	Each

Payment is full compensation for furnishing, installing, and removing the cover plates; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

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

611-006 (20030820)

20. Maintaining Street Name Signs.

Maintain all existing street name signs in a location visible to traffic until new street name signs are installed. If the existing signs cannot be maintained or reused, City of Madison Traffic Engineering will provide the contractor with temporary street name signs. The contractor shall then mount the temporary signs in a visible location. Due to the staging of the work under this contract, the contractor may need to relocate these signs so that they are not in the way of construction activities. Payment for this work is incidental to the item Traffic Control (Project).

21. **Fastening Signs to Supports.**

Supplement standard spec 637.3.3.3 as follows:

Fasten type II signs to 2-inch pipe installations using single or double Morris ring sign brackets from Vulcan Signs, TAPCO (#318), or Decker Supply (or approved equivalent).

22. **General Provisions for City Conduit Installation.**

Supplement standard spec 652 as follows:

Use Schedule 80 conduit under all traffic areas.

Install all conduit at a minimum depth of 30 inches, unless otherwise approved by the engineer. Solvent weld all joints. Mark the location of each conduit, where conduit crosses traffic areas, by a permanent chiseled arrow or other appropriate permanent stamp in top of the curb head.

Install and connect all conduit to the concrete bases, manholes, handholes, existing conduit, or conduit elbows so as to provide a continuous network, unless otherwise indicated on the plan. All connections shall be watertight. Do not install drainage holes in conduit. Uncover the ends or mid-sections of all existing conduit that is being extended by or incorporated into this project work.

When connections are to be made to an existing conduit, first verify that the existing conduit is fully clear and useable for its entire cross-section and length. When the existing conduit is found to be defective, notify the engineer and do not proceed until the engineer so directs. If the contractor connects to an existing defective conduit without the express direction from the engineer, make any and all necessary repairs and replacements to all conduits, including conduit that was "existing" prior to the contractor starting work and to the satisfaction of the engineer. All costs of this work shall be at the expense of the contractor.

Turn up conduits terminating in a non-paved location and not in a structure, and end at terrace finish grade with a PVC cap securely attached, per duct termination detail. Where conduit runs parallel to curb and gutter, place the conduit within 12 inches of the back of the curb, except as directed by the engineer. The engineer will determine termination points not within pull boxes or concrete bases.

Unless the contract provides for installation of cable, cap the ends of each run of conduit with standard conduit caps or otherwise appropriately plug the ends to preclude infiltration of water and soil. Install a pull wire in each conduit, except those with only streetlight wire. A pull wire shall be approximately 4 feet longer than the conduit run, and shall be doubled back for at least 2 feet at each terminal. The pull wire shall be #10 AWG copper, stranded, with THHN insulation and green color coding. Install the pull wire within seven days of completing a conduit installation from structure-to-structure.

Use a 6-inch minimum sand padding below the conduit and a 6-inch minimum sand lift above the conduit. Do not backfill trench with any rocks larger than 4 inches in diameter or any foreign debris.

23. General Provisions for City Traffic Signals.

Perform all work on the lighting and conduit/pull box system in accordance to the Wisconsin Electrical Code, the applicable provisions of the standard specifications, and these special provisions and plans.

The City of Madison will remove existing traffic signals and “signal only” poles when the temporary signals are in place at each intersection. Contact Michael Christoph at the City of Madison Traffic Engineering Shop, (608) 266-9031, to coordinate removal of existing signals and installation of new signals.

Remove existing streetlight poles identified for removal, including those that also have traffic signal equipment on them.

Each pedestrian push button installation shall include “Push Button for Walk Signal” signs. Single direction arrow signing shall also be used with all buttons except two direction arrow signing is needed for single buttons on median poles.

If existing conduits, handholes and bases designated as “save” cannot be saved, contact Brian Smith, (608) 261-9625, for further direction.

All new electric services shall be metered power, 100 amperes, 120 volt, CG-5 rate.

A minimum of 6 feet separation shall be maintained between any adjacent loop detectors.

24. General Provisions for City Electrical Systems.

A General Requirements

Perform this work in accordance to the Wisconsin Electrical Code, National Electrical Contractor's Association (NECA) electrical construction practices, OSHA and the standard specifications.

Perform all work on the lighting and conduit/pull box system in accordance to the Wisconsin Electrical Code, and applicable provisions of standard spec 659, and these special provisions and plans.

Carefully remove and salvage the steel frames and covers from all pull boxes and manholes to be removed or abandoned, and all street light poles, arms, transformer bases, fixtures, concrete handholes, and associated equipment. Material designated by the city to be saved shall be returned to City Traffic Engineering, 1120 Sayle St., Madison.

Complete electrical work by a journey-worker electrician or be completed by an electrical apprentice under the supervision of a journey-worker electrician. Legal status or standing as a journey-worker and apprentice electricians shall be certified or otherwise documented to the engineer before beginning any electrical work. Electrical work is hereby defined as electrical and related construction required to be performed under the contract by the contractor, in accordance to the standard specifications, contract provisions, standard detail drawings and plan details applicable to electrical construction.

At the pre-construction conference, supply the engineer with a list of names and qualifications of journey-workers and/or electrical apprentices who will or may be working on this contract.

Proof of qualification to do electrical journey-worker level work shall be the "Completion of Apprenticeship" certification card issued by an approved state agency, or a resume showing sufficient electrical education and a minimum of 14,000 hours of varied electrical work experience. All apprentices shall be indentured by an approved state agency.

The contractor is hereby advised that electrical apprentices must work under the terms of their indentures, which require an apprentice be under the direct supervision of a journey-worker with the exception of an apprentice in the final year as an apprentice. Any violation, or suspected violation, of these terms will be reported to the Bureau of Apprenticeship Standards.

On completion of the work, test the installation and ensure that it is entirely free of grounds and short circuits. This contract contemplates and intends a complete and operating installation of electrical work. Everything in the form of labor or material necessary for this result is in the intent of the contract.

It must be understood that electrical drawings and details are diagrammatic; they are not intended to be shop drawings. It is expected it may be necessary to move conduit, and/or equipment in some cases, to get a coordinated installation. Such changes are considered part of the contract obligation, without cost to the owner. Do not locate any equipment where its usefulness and/or operation may be affected by the work of other trades, door swing, counter, equipment, etc.

The contractor acknowledges his acquaintance with the plans and specifications and their respective requirements, and shall guarantee the electrical system has been installed strictly in accordance to the electrical plans and specifications, using only the best of materials available and installed in a substantial manner by experienced labor. The contractor agrees to replace and/or repair items failing from causes of faulty workmanship, material or design, without extra cost, at any time within one year from the date of final acceptance.

Furnish the City of Madison with service manuals for all items furnished under this contract. Service manuals shall be complete with drawings, diagrams, operation and installation instructions, and parts lists.

New streetlight wire in conduits shall consist of 3#6 and 1#8 green wire. The color coding for the #6 wire shall be one black, one red, and one white.

Ground wires shall have green insulation or be marked with green tape at all junction or pull boxes and at all terminations. Equipment and enclosures shall be grounded, ground connection surfaces shall be cleaned, and connections shall be made so it is impossible to move them.

All maintenance of existing street light facilities within the project limits shall be the contractor's responsibility. Maintain the new street lights until project work is accepted. This work shall be considered incidental to installation of street light units, temporary lighting, structures and ducts, and no separate compensation will be paid.

Extend existing lighting circuits to feed the new and relocated lights as part of this project. Verify the existing loads of each lighting circuit before adding additional load to a lighting circuit. Loading on any circuit shall not exceed NEC requirements.

Submit one copy of as-built plans, including cable and conduit routing diagrams, wiring of fixtures and other pertinent details, to the engineer and the City of Madison.

Furnish equipment and appliances necessary to test the complete installation of electrical conductors. Test and demonstrate to the satisfaction of the engineer that the circuits are properly connected, continuous and free from short circuits and unspecified grounds, that the circuits are connected in accordance to the manufacturer's wiring layout, and that each circuit is operational. The lighting system shall not be deemed complete until the electrical work has been completed and the electrical systems are found to be in proper working order, including operation for ten consecutive nights without failure.

B Materials

All materials furnished by the contractor for lighting installation under this contract are subject to approval by the engineer.

Manufacturers shall be responsible for providing materials listed by UL or other approved agencies and all governing codes and ordinances. Materials must bear a UL and/or other approved labels, where possible. Items specified by catalog number of brand name and shop drawing approval will not relieve the manufacturer of this responsibility. All electrical material for which a standard has been established by the Underwriters Laboratories, Inc. shall be furnished and installed under this contract. Material shall have the UL label firmly attached and be listed by UL Listing signifies that the material has passed the established standard testing. All electrical materials shall conform to the latest requirements of the Wisconsin Electrical Code.

All materials, not specified herein, used in the work shall conform to the requirements specified on the plan or the contract special provisions.

Furnish and install incidental items, such as wire nuts, grommets, tape, connectors, and electrical varnish that are obviously necessary to make the proposed system complete from the source of supply to the most remote unit.

Touch up mars and scratches on painted equipment with two coats of synthetic resin enamel or as directed by the engineer.

Furnish a complete list and cut sheets/shop drawings of materials to be furnished and used for lighting. Include the names and addresses of manufacturers, together with catalog numbers, certificates of compliance, specifications, and other product information requested by the engineer. Submit the list and cut sheets/shop drawings within 20 calendar days of the award of the contract. Do not incorporate any materials into the lighting system prior to obtaining the written approval of the engineer. Approval does not change the intent of the specifications. Do not substitute any materials. The contractor is allowed up to two submittals of material for approval. If more than two submittals are required, the contractor will be charged on a time-and-material basis for additional review time with payment made before submittals will be reviewed.

C Splices

Splices shall comply with standard spec 659.3.2. All splices within a junction box, handhole, etc. shall be of the same type. No splices are allowed in underground pull boxes, except for grounding conductors.

D Circuit Identification

Accomplish color coding by using cable jackets of the proper color. Code all tails of all splices. Color-code secondary distribution circuits as shown on the plans; the ground conductor shall be green. Each accessible location of underground cable in junction boxes, pull boxes and pole bases shall have a permanent white nylon tag with black lettering, attached in a "flag" manner using a nylon tie, identifying the cabinet and conductor circuit number.

E Branch Circuit Tagouts

The contractor may at his option work on live circuits or he may disconnect and tag out circuits. Any branch circuit not disconnected and tagged out shall be considered live; restrict work force to those qualified to work on live circuits. Disconnection may be made by disconnecting branches at the overcurrent device. Make tagouts with contractor furnished manufactured electrical warning tags and endorse with the name of the contractor, the date, and the project. Clear all tagouts by the end of the workday.

F Threaded Fasteners

Liberally coat all threaded fasteners, i.e., screws, and bolts with an approved anti-seize compound. Excepting fasteners inside control cabinets, fasteners up to 1/2-inch in diameter shall be stainless steel.

Provide rust, corrosion and anti-seize protection at threaded assemblies by coating the mating surfaces with Markal (Hightemp E-Z Break), Never-Seez (marine grade), LPS 100, Lubriplate or approved equal.

G Bonding Wire

Install bonding wire in conduits for equipment grounding. Ground all equipment as required.

H Initial Failures

The contractor and the engineer shall agree on a time for test burning of completed installations, which is generally toward the end of the contract period. Replace failed lamps, along with any other non-functioning component, for no additional compensation. Only one test burn for the purpose of identifying initial failures will be required. Coordinate supply of replacement lamps with the city.

I Project Construction Staging

The construction of the new lighting system shall maintain the integrity of the existing lighting systems within and beyond the project limits at all times. Exceptions to this shall only be granted for just cause by the inspector.

J Items of the Same Classification

All items of the same classification shall be of the same manufacturer and series.

L Underground Installation

Ensure that the engineer has inspected all underground conduit and concrete base forms before backfilling any trench or pouring concrete. Any work completed without such inspection is subject to rejection as unacceptable work and shall be immediately removed and acceptably replaced or otherwise satisfactorily corrected by and at the expense of the contractor. It is the contractor's responsibility to arrange for inspections. There will not be any additional compensation to the contractor for delays and inconvenience associated with arranging and waiting for inspections.

25. Root Pruning Existing Terrace Trees, Item SPV.0060.01.

A Description

This special provision describes pruning roots of existing terrace trees by hand or using a mechanical root cutting machine to allow for excavation; storm sewer, sanitary sewer or water main installation; and paving and curb and gutter operations.

B (Vacant)

C Construction

Preserve existing terrace trees not shown as being removed on the plans. Prune roots of existing terrace trees by hand or using a mechanical root cutting machine to allow for adjacent construction operations. Prune roots along the roadway side of the tree from drip

edge to drip edge of the tree. Prune roots in the terrace from the back of curb and gutter to the face of sidewalk in areas of proposed sanitary and water utility lateral installations a minimum of 6 feet from the centerline the proposed utility trench. Roots shall not be pruned closer than 15 inches to any existing tree.

Cleanly cut roots by hand or by using a sharp clean carbide tipped rotary saw blade. If using a saw, disinfect the blade between cuts to avoid spreading disease. All root cuts shall be made smooth and clean to facilitate root regeneration. Tearing or ripping of roots is not acceptable. Removal of roots using a backhoe or endloader without proper root pruning is not acceptable.

Cover exposed tree roots with mulch and keep moist until backfilling is completed.

Backfilling of the area after removal of the roots shall be performed by the contractor as part of this item in accordance to the pertinent provisions of standard spec 207. Backfilling shall be done by use of hand implements within the dripline of terrace trees.

Dispose of tree roots in accordance to standard spec 201. Burning or burying of roots will not be permitted.

Do not conduct root pruning during bud break, shoot growth, or environmentally stressful times such as extreme drought or heat conditions.

D Measurement

The department will measure Root Pruning Existing Terrace Trees as each individual root pruned tree, 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.0060.01	Root Pruning Existing Terrace Trees	Each

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

26. Precast Sign Post Base, Item SPV.0060.02.

A Description

This special provision describes constructing and installing precast sign post bases at locations shown on the plans and as hereinafter provided.

B Materials

All materials furnished for the work shall meet the requirements for the class of materials named.

Specific reference is made to the following sections of the standard specifications:

Concrete Masonry	standard spec 501
Steel Reinforcement	standard spec 505

Concrete Masonry shall be of a 3,200-psi minimum strength in 28 days. The 2-inch x 24-inch +1/3-inch insert shall be an ASTM Designation 120 A53 Fed Spec P404, Schedule 40 untreated black pipe 2-inch diameter, with a galvanized rigid conduit coupling installed.

C Construction

Form the 24-inch x 11-inch precast base in accordance to the details in the plan. Weld the coupling and pipe over 50 percent of the circumference. Center the insert in the base and plumb with the vertical axis of the base, and place so that the coupling is flush 1/8 inch with the top of the troweled surface of the base. The bottom of the insert extends a minimum of 1/8-inch below the base and shall remain open to permit drainage. Weld 3/8-inch by 8-inch reinforcing bar to the insert 8 inches from the top of the base and 8 inches from the bottom of the base to prevent the insert from rotating within the concrete base.

Set the signpost bases at the locations shown on the plans. The center of the finished installation shall be 2'6" + inches from the face of the adjacent curb.

Upon request and reasonable notice from the contractor, the engineer will establish and stake the location for the sign post bases. The City of Madison Traffic Engineering Division Staff will verify all signpost base locations.

Coat the threads of the pipe and coupling in the base with graphite grease prior to assembly. Install the base and pipe as a unit, level with the finished grade of the surrounding surface with the pipe plumb. Tamp the material used for backfilling around the base in 6-inch layers to ensure the installation will remain plumb. Provide a one-year warranty that the signpost base installation shall remain plumb.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and satisfactorily repair and restore other work damaged by operations.

D Measurement

The department will measure Precast Sign Post Base by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Precast Sign Post Base	Each

Payment is full compensation for furnishing all materials; for the manufacture of the sign post base; for hauling, handling and installing the sign post base, including backfill.

27. Erecting City-Owned Signs Type II, Item SPV.0060.03.

Erect city-owned signs in accordance to the requirements of standard spec 638, except that the City of Madison will furnish the signs.

28. Storm Sewer Tap, Item SPV.0060.04.

A Description

This special provision describes tapping various sized storm sewer pipes or culverts into existing structures, including manholes and inlets, or other pipes as detailed on the plans, using Grade A concrete. However, water levels fluctuate in the existing pipes or box culvert and contractor may encounter water levels above flow line of the proposed storm sewer pipe. If this is the case, the contractor shall also comply with standard spec 502.3.5.3. The tapped pipe shall be left flush with the interior wall of the existing pipe. Tuck-point and seal the tap inside and outside using approved mortar as described in the Special Provisions, "General Provisions for Storm Sewer".

B (Vacant)

C Construction

The work under these items shall be in accordance to the provisions of standard spec 611, as shown on the plans and as provided herein.

D Measurement

The department will measure Storm Sewer Tap by each individual unit, acceptably completed, regardless of size and regardless of whether or not a box out exists.

E. Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Storm Sewer Tap	Each

Payment is full compensation for tapping the hole; connection of the pipe (pipe paid separately); and for furnishing and placing concrete.

29. Sewer Electronic Markers, Item SPV.0060.05.

A Description

Work under this item includes installing Sewer Electronic Markers in accordance to Article 503.2 of the City of Madison Standard Specification for Public Works Construction- Latest Edition. These sewer electronic markers will be installed where called for on the plan set above sanitary sewer and storm sewer facilities.

B Materials

All materials are described in Article 503.2(f) of the City of Madison Standard Specification for Public Works Construction- Latest Edition. Markers will be provided by the City of Madison.

C Construction

Install Sewer Electronic Markers in accordance to Article 503.2(f) of the City of Madison Standard Specifications for Public Works Construction– Latest Edition.

For storm sewer, place a marker ball for each storm tap located above the connection on the storm sewer main, as shown on plans. Place the marker ball so the marker ball will be no deeper than 4.5-feet below finished grade and directly above the storm lateral. If the location of the lateral is below 4.5 feet from finished grade, partially backfill trenches prior to placement of the marker ball at the desired locations.

Notify the engineer when marker balls are installed. Each marker ball will be tested by the city after completion of final pavement surface to confirm that it is installed and functioning properly. If it is not installed or functioning, excavate to expose the existing marker ball or lateral and place a new marker ball. No additional compensation will be provided for this work.

D Measurement

The department will measure Sewer Electronic Markers as each individual sewer electronic marker, 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.0060.05	Sewer Electronic Markers	Each

Payment for Sewer Electronic Markers is full compensation for furnishing all work, materials, labor and incidentals required to complete the installation and all associated work to provide a complete functioning system. The department will not pay for replacing those marker balls that are non-functional. Balls will be provided by the City of Madison.

30. Manhole 3x3-Ft Special, Item SPV.0060.06.

Perform the work under this item in accordance to the applicable provisions of standard spec 611 and as detailed.

31. Inlet 2x3-Ft Special, Item SPV.0060.07.

Perform the work under this item in accordance to the applicable provisions of standard spec 611 and as detailed.

32. Manhole Cover Type J Special, Item SPV.0060.08.

A Description

Furnish and install metal frames, grates and lids in accordance to standard spec 611, as shown on the plans, and as hereinafter provided.

B Materials

Furnish castings in accordance to standard spec 611 and Article 507 of the City of Madison Standard Specifications for Public Works Construction-Latest Edition and the details shown in the plans. Lids furnished with logo per Madison Standard Specifications for Public Works Construction-Latest Edition Standard Detail Drawing 5.7.16.

C Construction

Install castings in accordance to standard spec 611.

D Measurement

The department will measure Manhole Cover Type J Special as each manhole cover, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Manhole Cover Type J Special	Each

Payment is full compensation for providing new covers, including frames, lids, and all other required materials; and for installing and adjusting each cover. Old covers removed remain the property of the municipality.

33. Inlet Cover Type H Special, Item SPV.0060.09.

Perform the work under this item in accordance to the applicable provisions of standard spec 611 and as detailed.

34. Inlet Cover Type H-S Special, Item SPV.0060.10.

Perform the work under this item in accordance to the applicable provisions of standard spec 611 and as detailed.

35. Remove Sanitary Sewer Structure, Item SPV.0060.11.

A Description

This special provision describes removing sanitary sewer access structures as shown on the plans. The work includes salvaging and disposing of the resulting materials and backfilling the trenches with select fill.

B Materials

Provide select fill meeting the requirements of Article 202.2 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition; furnishing and placing select fill in void created by the structure removal is included with this bid item.

C Construction

Remove sanitary sewer access structures in accordance to Article 203.2(a) of the City of Madison Standard Specifications for Public Works Construction - Latest Edition. Sewer mains and laterals that are connected to a removed Sanitary Sewer Access Structure will be plugged with a concrete plug incidental to the removal of the structure.

D Measurement

The department will measure Remove Sanitary Sewer Structure as 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.0060.11	Remove Sewer Access Structure	Each

Payment is full compensation for furnishing all materials, including fill material; for disposal of surplus materials; excavation and compaction of select fill material; restoring the site; and for furnishing all labor, tools equipment, and incidentals necessary to complete the contract work.

36. Abandon Sanitary Sewer - Pipe Plug, Item SPV.0060.12.

A Description

This special provision describes plugging pipes as shown in the plans and hereinafter provided. In accordance to Article 203.2c City of Madison Standard Specifications for Public Works Construction Latest Edition Article 203.2(c), any pipe found in a trench that is less than 10" in diameter while installing a sewer facility will be considered incidental to the pipe being installed.

B Material

Provide concrete conforming to Article 301 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition

C Construction

Abandon sanitary sewer pipe with a plug in accordance to Article 203 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition.

Provide replacement sanitary sewers and laterals or appropriate bypass pumping prior to abandoning sanitary sewer pipe.

Saw cut end of existing pipe and clean interior of pipe to create a good bonding surface. Form and pour a minimum 1-FT deep concrete plug completely filling the opening of the pipe.

Any pipe plugs required to abandon or remove a sewer access structure (pipes directly connected to the structure) will be considered incidental to abandoning or removing the structure regardless of the size of the pipe being abandoned

Any plugs required to abandon the existing sanitary main where laterals are being extended will be considered incidental to sanitary sewer lateral (Sanitary Sewer Lateral, Item SPV.0090.10).

D Measurement

The department will measure Abandon Sanitary Sewer - Pipe Plug 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.0060.12	Abandon Sanitary Sewer – Pipe Plug	Each

Payment is full compensation for furnishing all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

37. Install Compression Coupling, Item SPV.0060.13.

A Description

This special provision describes a permanent sanitary sewer connection of the proposed sewer main to existing sanitary sewer main.

B Materials

Provide select fill meeting the requirements of Article 503.3(f) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition for select fill for sanitary sewer mains and laterals.

C Construction

Install Compression Couplings in accordance to all applicable provisions of Article 503.3(f) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition. If the compression coupling is a proposed sewer main to an existing sewer

main, the pipe slope of the proposed sewer main will match the slope of the existing sewer pipe.

D Measurement

The department will measure Install Compression Coupling 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.0060.13	Install Compression Coupling	Each

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

38. Sanitary Lateral Reconnect, Item SPV.0060.14.

A Description

This special provision describes sanitary sewer lateral connections encountered during the course of this project that connect to the sanitary sewer main.

B Material

Furnish sanitary sewer pipe and fittings that are solid-wall Poly Vinyl Chloride (PVC) and that conform to the requirements of the Specification for PVC Sewer Pipe and Fittings, ASTM D 3034.

For lateral wye connections to 8” diameter sewer main, provide sanitary sewer pipe and fittings having a standard dimension ratio of 26 or 35 depending on the depth of the pipe.

Sewer lateral pipe and fittings deeper than 12’ will have ASTM D3034 SDR 26 pipe.

Assemble joints using or elastomeric or solvent cement as recommended by the pipe manufacturer. The assembled joints will be required to pass the performance tests as required in ASTM D3212 elastomeric or ASTM D2564 solvent cement.

C Construction

The pipe for the connection of laterals is not to exceed a length of 5 feet.

Install risers, where necessary, in accordance to Standard Detail Drawing 5.3.1 of the City of Madison Standard Specifications for Public Works Construction- Latest Edition. Risers five feet in length are included in the bid item Sanitary Lateral Reconnect. Backfill and compaction in accordance to Article 202.3(b) of the City of Madison Standard Specifications for Public Works Construction-Latest Edition utilizing select fill.

D Measurement

The department will measure Sanitary Sewer Reconnect as each individual sanitary sewer reconnect, acceptably completed.

Sanitary sewer lateral pipe exceeding five feet in length will be paid under bid item. Sanitary Sewer Lateral, Item SPV.0090.10.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.14	Sanitary Lateral Reconnect	Each

Payment is full compensation for furnishing all materials, including fill material; plugging the ends of all sewer mains and sewer laterals; excavation; trimming and chipping; cutting, protecting or removing reinforcing steel; disposal of surplus materials from the structure or excavation; excavation and compaction of the backfill material; and for restoring the site.

39. Sanitary Sewer Access Structure, 5-Foot Diameter, Item SPV.0060.15; 4-Foot Diameter, Item SPV.0060.16.

A Description

This special provision describes installing Sewer Access Structures at the depths and locations shown on the plan.

B Materials

Provide precast concrete Sanitary Sewer Access Structure (4-Foot Diameter, 5-Foot Diameter) meeting the requirements of Standard Detail Drawing 5.7.2, 5.7.15, and Article 507.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Furnish and install Sewer Access Structure Frames and Covers, in accordance to Standard Detail Drawing 5.7.16 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition, will be paid for separately under the Manhole Covers Type J Special, Bid Item SPV.0060.08.

C Construction

Install Sanitary Sewer Access Structure (5-Foot Diameter, 4-Foot Diameter) in accordance to Article 507.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition. Maintain the normal flow of wastewater at all times during installation of the new sanitary sewer access structure and when connecting pipes to the new structure. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, is incidental to this bid item.

Construct concrete benches and flow lines as directed by the City of Madison or as directed by the engineer.

D Measurement

The department will measure Sanitary Sewer Access Structure (Diameter) by each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.15	Sanitary Sewer Access Structure (5-Foot Diameter)	Each
SPV.0060.16	Sanitary Sewer Access Structure (4-Foot Diameter)	Each

Payment is full compensation for furnishing and installing sewer access structures; for excavation and disposal of excess material; for constructing benches and flow lines; for furnishing and installing all bypass or temporary piping and connections; and for backfilling.

40. Adjust Sewer Access Structure Special, Item SPV.0060.17.

A Description

This special provision describes adjusting sanitary sewer access structure castings as called for on the plan set to the final proposed grades. This bid item is required because the casting adjustment is greater than 9” of vertical adjustment to set the casting to the final grade or the chimney was determined to be in poor condition. Manhole adjustments less than 9” shall be paid for separately under standard bid item 611.811 Adjusting Manhole Covers.

B Materials

Furnish precast concrete barrel sections and manhole adjustment rings meeting the requirements of Article 507.3, as well as SDD 5.7.2 and 5.7.15 of the *city standard specifications*.

C Construction

Adjust sanitary sewer access structures in accordance to Article 507.3 of the *city standard specifications*. Remove adjustment rings and install concrete barrel sections. The maximum allowed adjustment on the Sewer Access Structure shall not exceed 9 inches and the final configuration of the structure shall be in accordance of SDD 5.7.2 and 5.7.15 of the *city standard specifications*. If castings are to be swapped with a city non-rocking did with the special logo casting, work shall be completed under bid item SPV.0060.08 Manhole Cover Type J Special.

D Measurement

The department will measure Adjust Sewer Access Structure Special 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.0060.17	Adjust Sewer Access Structure Special	Each

Payment is full compensation removing existing covers, frames, adjustment rings, cone sections, and barrel sections; for installing barrel sections; for re-installing and rotating existing offset cone sections; and for installing adjustment rings, frames, and covers all in accordance to Article 507 of the *city standard specifications*, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

41. Sanitary Sewer Tap, Item SPV.0060.18.

A Description

This special provision describes connecting new laterals or main to an existing structure and connecting an existing lateral or main to a new structure.

B Materials

Provide Kor-n-Seal flexible connector, or approved equal, in the tapped hole, in accordance to Standard Detail Drawing 5.7.31 of the City of Madison Standard Specifications for Public Works Construction- Latest Edition.

C Construction

C.1 New Pipe to Existing Structure

Use a portable coring drill to produce a pipe opening that is round, clean and free of any pitting of the concrete.

Make a watertight connection of the pipe to the sewer access structure with a Kor-n-Seal flexible connector, or approved equal, in accordance to Standard Detail Drawing 5.7.31 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition.

C.2 Existing Pipe to New Structure

Provide a flexible connector to connect the existing pipe to any new pipe which is required to make the connection to the structure.

Provide PVC (SDR-26 or SDR-35) that matches the existing pipe's diameter, or the next larger diameter, to reconnect the existing sewer main or lateral. The PVC (SDR-26 or SDR-35) sanitary sewer pipe is considered incidental to this bid item.

The pouring and construction of concrete benches and flowlines in new sewer access structures for the inlet or outlet pipes is not included in this bid item and is considered incidental to the bid item Sanitary Sewer Access Structure (4-Foot Diameter or 5- Foot Diameter).

The downstream pipe connection to a Sewer Access Structure (4-Foot Diameter or 5-Foot Diameter) is considered incidental to the Sewer Access Structure (4-Foot Diameter or 5-Foot Diameter).

D Measurement

The department will measure Sanitary Sewer Tap 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.0060.18	Sanitary Sewer Tap	Each

Payment is full compensation for providing all connectors; for coring; and for furnishing all work, materials, labor and incidentals required to complete the work.

42. Utility Line Opening (ULO), Item SPV.0060.19.

A Description

Excavate and uncover utilities for the purposes of determining elevation and potential conflicts, as shown on the plans or as approved by the engineer. Work for this item also includes, but is not limited to:

1. Excavation to expose the utility line.
2. Backfilling with existing material removed from the excavation.
3. Compacting the backfill material.
4. Restoring the site, including cleanup.
5. All labor, tools, equipment, transportation, and incidentals to perform the work.

B (Vacant)

C Construction

Excavate in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Perform utility line openings as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening shall be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. A trench of up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility is included under the bid item of utility line openings.

Approve and coordinate all utility line openings with the engineer. Notify the utility engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed. The need for performing ULO's as shown on the

plans shall be verified since some of the utilities may have been relocated prior to the start of construction.

Replace pavement open to traffic within 24 hours of beginning the excavation.

D Measurement

The department will measure Utility Line Opening (ULO) by each unit, acceptably completed. Where utilities are within 6' of each other at a potential conflict location, only one utility line opening shall be measured.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.19	Utility Line Opening (ULO)	Each

Payment is full compensation for all work, materials, labor, tools, equipment, restoration and incidentals necessary to complete this item of work.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings shall not be considered part of or paid for under Utility Line Openings, but shall be considered separate and measured and paid for separately as removal items. Replacement pavement, concrete curb, gutter, and sidewalk items shall also be considered separate from Utility Line Openings and will be measured and paid for separately.

43. Furnish and Install 6-Inch Valve, Item SPV.0060.20; 8-Inch, Item SPV.0060.21; 10-Inch, Item SPV.0060.22; 12-Inch, Item SPV.0060.23.

A Description

Furnish and install water main valves and associated accessories. Work for this item also includes, but is not limited to:

1. Mechanical joint restraint.
2. Valve boxes and box extensions.
3. Valve box adjustments.

B Materials

Refer to Articles 702 and 704 the *City Standard Specifications* and this section.

Valves 12-inches and smaller - Requirements:

1. Resilient Wedge Gate Valves.
2. Meets the requirements of AWWA C509- latest revision.
3. Supplied with mechanical joints.
4. Supplied with conductive mechanical joint (no lead) gaskets.

5. Open to the left.
6. Non-rising stem.
7. O-ring packing.
8. 2-inch square operating nut.

C. Construction

Install valves in accordance to standard specs 703 and 704 of the *City Standard Specifications*.

Furnish and install valve box extensions where needed. All valve box extensions are incidental to the installation of the valve.

D Measurement

The department will measure Furnish and Install (Inch) Valve as each individual unit, acceptably completed.

E Payment

Paid at the contract unit prices under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.20	Furnish and Install 6 Inch Valve	Each
SPV.0060.21	Furnish and Install 8 Inch Valve	Each
SPV.0060.22	Furnish and Install 10 Inch Valve	Each
SPV.0060.23	Furnish and Install 12 Inch Valve	Each

Payment is full compensation for furnishing and installing water system valves and valve boxes, including all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

44. Furnish and Install Hydrant, Item SPV.0060.24.

A Description

Furnish and install fire hydrants and associated thrust restraints. Adjust hydrant as necessary.

Prepare a proper drain field for the hydrant. Restore all disturbed terrace or turf areas.

B Materials

Refer to Article 702 of the *City Standard Specifications* and this section.

C Construction

Install all hydrants in accordance to Hydrant Detail Drawing and Sections 703 and 704 of the City of Madison *City Standard Specifications*.

D Measurement

The department will measure Furnish and Install Hydrant as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.24	Furnish and Install Hydrant	Each

Payment is full compensation for furnishing and installing hydrants, including all materials, labor, tools, equipment, restoration and incidentals necessary to complete this item of work.

45. Disconnect and Reconnect 1-Inch Service Lateral, Item SPV.0060.25.**A Description**

Cut off, and typically shorten, existing copper water service laterals and connect the lateral to the new water main. Restore any disturbed terrace areas, as necessary.

B Materials

Refer to Article 702 of the *City Standard Specifications*.

C Construction

Refer to Article 703 of the *City Standard Specifications* and this section.

Excavate and expose the existing service lateral at the location of the new water main crossing.

Cut-off the service tubing at the exposed crossing location.

Couple the disconnected end of the service tubing with a new service of the designated size.

Reconnect the modified service length to the corporation stop on the new water main.

D Measurement

The department will measure Disconnect and Reconnect Service Lateral – 1-Inch as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.25	Disconnect and Reconnect Service Lateral – 1-Inch	Each

Payment is full compensation for disconnecting existing water service laterals and reconnecting the existing laterals to new water mains, including all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

46. **Cut-In or Connect-To Existing Water System, Item SPV.0060.26.**

A Description

Cut-In Connection consists of all means and methods, equipment, tools, labor, and incidentals necessary for making a plug-removal connection or a cut-in connection to existing water mains, including any necessary water-tight capping of existing water mains associated with the work.

B Materials

Refer to Article 702 of the *City Standard Specifications*.

C Construction

Refer to Article 703 of the *City Standard Specifications* and this section.

Excavate and expose the existing water main to a point 18-inches below the bottom of the pipe at the proposed location of the plug-removal connection or cut-in connection.

Shut off all valves required to isolate the exposed pipe segment. Be responsible and properly equipped for valve-turning at all times while doing such work.

Place a water pump at the bottom of the excavation for dewatering, as needed. When cutting out sections of pipe proceed slowly and ensure dewatering efforts prevent the water level within the excavation from rising above the invert elevation of the exposed pipe.

Before placing new pipe and fittings on the exposed end of the existing fitting or the cut-off end of the existing pipe, disinfect the new fitting or valve by swabbing or soaking thoroughly with a 10:1 (water:bleach) solution.

Fasten new fittings to existing fittings or ductile iron pipes as described in Article 703 of the *City Standard Specifications*. For connections to existing cast iron or other existing pipe materials, secure the new pipe or fitting with threaded rods in accordance to the Standard Detail Drawings.

For cut-in connections or as otherwise necessary, secure the disconnected end of the existing pipe with either a pipe plug or a cap fitting, as approved by the engineer. Place standard thrust blocking between the end of the existing pipe and the new fitting, unless specified otherwise in the Contract Documents or as directed by the engineer.

D Measurement

The department will measure Cut-In or Connect-To-Existing Water System as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.26	Cut-In or Connect-To Existing Water System	Each

Payment is full compensation for performing a cut-in or fitting connection to existing water mains, including all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

47. Furnish Excavation and Ditch for Live Tap, SPV.0060.27.

A Description

Excavate and prepare the ditch for the city to perform a live-tap connection on an existing water main. Upon completion of tap, cut-off and cap the existing water main.

B Materials

Refer to Article 702 of the *City Standard Specifications*.

C Construction

Refer to Article 703 of the *City Standard Specifications* and this section.

Prepare a suitable work area in the ditch for the engineer to perform the live-tap:

Expose the water main across the full width of the ditch.

Provide at least 1-foot of clear space around the circumference of the exposed water main.

Locate and identify the proposed tap location in the ditch and adjust as necessary to maintain a distance of at least 18-inches from the nearest joint.

Provide at least a 4-foot-wide clear working area, extending at least 6-feet perpendicular from the main at the location of the live-tap.

Upon completion of the live-tap by the city, cut-off and cap the existing water main in accordance to Article 704 of the *City Standard Specifications* – ‘Cut Off Existing Water Main’. The cut-off and cap work associated with the live-tap is incidental to the work and will not be paid separately.

D Measurement

The department will measure Furnish Excavation and Ditch for Live Tap as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.27	Furnish Excavation and Ditch for Live Tap	Each

Payment is full compensation for furnishing excavation and ditches to perform live-tap water main connections, including all labor, tools, equipment, backfill material and incidentals necessary to complete this item of work

48. Cut Off Existing Water Main, Item SPV.0060.28.

A Description

Abandon and plug a segment of existing water main by “cutting it off” from the active water system. The work also includes securely capping or plugging the cut end of the active main.

B Materials

Refer to Article 702 of the *City Standard Specifications*.

C Construction

Refer to Article 703 of the *City Standard Specifications* and this section.

Prior to proceeding with the cut-off, perform the required water main shut-off notifications.

When authorized to proceed, isolate and shut-off the existing water main.

Cut of the water main at the location designated for abandonment.

Install a concrete pipe plug in the end of the existing main which is to be abandoned.

On the end of the water main which is to remain in-service:

1. Install a restrained mechanical joint cap over the cut end of the existing water main, or within 2-feet of a fitting or live-tap.
2. Otherwise, install a restrained mechanical joint plug fitting into a new or existing fitting located at the end of the main.

If the water main cut off work is intended to remove and replace an existing fitting, valve, or segment of pipe, cut off as designated, remove the existing material and replace it with the new fittings and/or the lengths of pipe and solid sleeves necessary to reconnect to the existing main.

Disinfect any associated materials by swabbing methods in accordance to Article 703 of the *City Standard Specifications*.

D Measurement

The department will measure Cut Off Existing Water Main as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.28	Cut Off Existing Water Main	Each

Payment is full compensation for cutting-off and installing mechanical joint caps on existing water mains, including furnishing all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

49. **Abandon Water Valve Box, Item SPV.0060.29.**

A Description

Abandon valve boxes within the project limits that are set upon valves no longer in service. Place the abandoned valve in the closed position prior to abandoning the box. Completely remove the valve box whenever possible.

B Materials

Refer to Article 702 of the *City Standard Specifications*.

C Construction

Refer to Article 703 the *City Standard Specifications* and this section.

Proceed with work only after the existing water main has been abandoned.

Remove the top casting of the valve box to a point at least 3-feet below the final elevation, and then backfill the opening.

Any associated surface restoration work, including concrete or asphalt surface restoration, necessary as a result of the valve box abandonment being located beyond surfaces called to be replaced is considered incidental to this work.

D Measurement

The department will measure Abandon Water Valve Box as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.29	Abandon Water Valve Box	Each

Payment is full compensation for abandoning existing valve boxes, including furnishing all materials, labor, tools, equipment, restoration and incidentals necessary to complete this item of work.

50. **Abandon Hydrant, Item SPV.0060.30.**

A Description

Decommission and salvage designated existing fire hydrants. Restore any disturbed turf areas.

B Materials

Refer to Article 702 of the *City Standard Specifications*.

C Construction

Refer to Article 703 of the *City Standard Specifications* and this section.

Do not proceed with hydrant abandonments until the existing water main has been abandoned.

For screw type hydrants:

1. Unscrew the hydrant with chain tongs (or like), and remove the high stock, and salvage for the engineer.
2. Remove the frost case and salvage for the engineer.

For non-screw type hydrants:

1. Excavate to the bottom of the hydrant and disassemble/disconnect it from the hydrant lead.
2. Remove the hydrant and salvage for the engineer.

Backfill the remaining opening/excavation with existing material and compact.

Use select fill as additional material if there is not enough approved existing backfill material.

Restore all disturbed turf areas associated with the hydrant abandonment.

D Measurement

The department will measure Abandon Hydrant as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.30	Abandon Hydrant	Each

Payment is full compensation for removing and salvaging existing hydrants, including furnishing all backfill, restoration, labor, tools, equipment and incidentals necessary to complete this item of work.

51. Concrete Pipe Support, Item SPV.0060.31.

A Description

Constructed work under this item to conform with the requirements of Article 508 and Standard Detail Drawing 5.8.1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition for Concrete Supports.

B Material

Refer to Article 508 and Standard Detail Drawing 5.8.1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

C Construction

Refer to Article 508 and Standard Detail Drawing 5.8.1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition, and this section.

Whenever shown on the plans, or directed by the engineer, the contractor shall install pipe supports.

Pipe supports shall be installed under a new utility pipe when such pipe crosses over an existing utility line within 12 inches.

D Measurement

The department will measure Concrete Pipe Support by each completed pair installed in accordance to Article 508 and Standard Detail Drawing 5.8.1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.31	CONCRETE PIPE SUPPORT	Each

Payment is full compensation for furnishing and installing concrete pipe supports, including all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

52. Remove Street Light, Item SPV.0060.32.

A Description

Work under this item includes removing and salvaging a base mounted light pole, direct bury light pole, transformer bases, arm and luminaire.

B (Vacant)

C Construction

Contact Brian Smith, (608) 261-9625, at least 7-days prior to removing any street lights on the City of Madison lighting systems. Arrange a meeting to document the existing condition of all street lighting materials that will be affected by construction activities.

The City of Madison will provide the following information:

1. Identify all items to be salvaged or disposed
2. Identify existing feed-point locations and circuit breaks.

When removing existing street lights, carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. Protect luminaires from moisture. Either reinstall lights as the plans show or make available for City of Madison to pick up and salvage. Properly dispose of any equipment that the city does not salvage.

Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged piece.

See the “Temporary Traffic Signals” article for additional information on maintaining lighting operation in areas as noted.

D Measurement

The department will measure Remove Street Light as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.32	Remove Street Light	Each

Payment is full compensation for removals and disposal as required above.

53. LED Luminaire Type 1, Item SPV.0060.33; LED Luminaire Type 2, Item SPV.0060.34.

A Description

This item number includes furnishing and installing Cooper fixture luminaires.

B Materials

B.1 Material Qualifications

Provide an integral LED lighting unit. All parts not specifically mentioned, which are necessary and are regularly furnished in order to provide a complete unit, shall be furnished by the successful bidder at the bid price and shall conform in quality of

material and workmanship to that usually provided by the engineering practice indicated in this specification.

Furnish luminaires of the “cutoff” type conforming to all general aspects for luminaires as specified under standard spec 659 except as modified herein. All equipment to be furnished shall be new, unused, and the latest model being produced. The LED Luminaire Type 1 shall be a Cooper Lighting g r e y LED Talon luminaire (part number “TLM-B04-LED-E1-SL3-AP”). The LED Luminaire Type 2 shall be a Cooper Lighting grey LED Talon luminaire (part number “TLM-B06-LED-E1-SL3-AP”).

B.2 Manufacturer’s Warranty

The manufacturer shall warrant that goods provided for this project will conform to applicable specifications, drawings, designs, samples, descriptions and will be free from defects in material and workmanship and will be fit for the particular purpose intended by the city.

This warranty shall remain in effect for one year. The warranty period commences on the date the luminaires are installed.

Under this warranty, the manufacturer agrees to replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the City of Madison.

New lighting units will not be accepted before luminaires and lamps have operated without failure for a period of at least ten consecutive nights.

C Construction

Install LED Luminaire (Type) in accordance to the pertinent provisions of standard spec 659 and in accordance to the manufacturer recommendations.

D Measurement

The department will measure LED Luminaire (Type) as each individual unit, 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.0060.33	LED Luminaire Type 1	Each
SPV.0060.34	LED Luminaire Type 2	Each

Payment is full compensation for furnishing and installing all materials, including luminaires and side of pole mounting hardware.

54. Pole 30-Foot, 11 Gauge, Item SPV.0060.35.

A Description

Furnish and install poles and arms in accordance to standard spec 657, the details shown on the plans, and these special provisions.

B Materials

All poles shall be round, with a base plate welded to the bottom end of the pole. All poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper

Base plates shall have a slotted opening for anchor bolts.

All 30-foot poles shall be designated to withstand a 90 mile per hour sustained wind velocity and 117 mile per hour gust velocity with the bracket arm and luminaire in place.

A 4" x 6 1/2" galvanized handhole shall be provided with contoured or flat cover plate joined to the reinforced handhole frame with two bolts. The handhole shall be located 90° clockwise from the bracket arm side of poles as viewed when looking down from the top of the pole. The center of the handhole should be 14 inches from the bottom of the pole. A solid metal bracket, with a drilled and tapped hole, shall be provided for securing cover plate bolts. Clips for holding these bolts are not acceptable. The machine bolts shall be a slotted hex-head style.

The pole shaft shall be fabricated from the herein specified manufacturer's best grade, hot rolled basic open hearth, or basic oxygen process steel. The shaft shall have only one longitudinal, electrically welded joint, with the strength rated at not less than 100 percent of the yield strength of the steel and shall have no intermediate horizontal joints or welds. Only one length of steel sheet shall be used, and it shall be formed into a continuously tapered shaft, having a taper of approximately 0.14 inches per foot. The weld shall be smooth, allowing the specified taper to be constant. The pole shall be within 1/4" in 10 feet of being straight and centered on its longitudinal axis.

A grounding nut or nut holder for accommodating a 1/2 inch x 13 UNC threaded bolt or stud shall be provided on the inside of the shaft immediately opposite the center of the handhole. The nut shall be completely free of any metal residue that would prevent a bolt from easily screwing entirely into the nut.

All poles holding LED fixtures shall have mounting and wire raceway holes placed before being hot-dipped galvanized. Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles.

A pole-top cover and four nut covers shall be furnished and installed for each pole.

Each steel pole shall have a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. The label shall state the overall pole height, shaft gauge, and year of manufacture. The label shall conform to the curvature of the pole and not have any sharp edges or corners. All rivets shall be smooth inside and outside of the pole.

After all welding has been completed, the exterior surface of the pole and hardware shall be thoroughly cleaned and shall be free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances. The poles shall be hot-dipped galvanized in accordance to the requirements of ASTM Designation A123. The hardware shall be hot-dipped galvanized in accordance to ASTM designation A153. The galvanized finish shall be bright, shiny, and uniform. Matted or dull pole sections will not be accepted.

Furnish non-shrink commercial grout from approved products list.

C. Construction

Metal poles shall be set and plumbed with the use of leveling nuts furnished with the anchor bolts. Luminaries shall be leveled after erecting and leveling the metal standards with bracket arms. The proper leveling method may be obtained from the manufacturer's instruction manual. Nuts on anchor and transformer bolts shall be torqued to 175-200 foot pounds or as directed by the engineer. Rust, corrosion, and anti-seize protection shall be provided at all threaded assemblies by coating and mating surfaces with Markal (hightemp – E-Z Break), Never-Seez (Marine Grade), LPS 100, Lubriplate, or approved equal.

The stranded copper ground wire that is installed as a part of base construction shall be attached with an approved connector (Fargo GC 202 or approved equal) to a ground nut locate inside the pole opposite the handhole.

When transformer bases are not installed, grout shall be troweled between the pole and concrete base and finished at an angle from the edge of the pole base to the outer edge of the foundation. A ½ inch slot for drainage shall be left through the grouting on the street side at the top of the concrete base.

D Measurement

The department will measure Pole 30-Foot, 11 Gauge 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.0060.35	Pole 30-Foot 11 Gauge	Each

Payment is full compensation for furnishing and installing all materials, including poles, all hardware and fittings necessary to completely install the pole; for corrosion prevention when required; for installing identification plaques when required; and for furnishing and installing fuses, wire and all miscellaneous hardware necessary to integrate the components into a single unit connected to the feeder system.

55. Electrical Pullbox Type 1, Item SPV.0060.36; Type 3, Item SPV.0060.37; Type 5, Item SPV.0060.38; Type 7, Item SPV.0060.39.

A Description

This special provision describes furnishing and installing pull boxes and manholes in accordance to standard spec 653, the plan details, and as herein provided.

B Materials

Electrical Pullbox, Type 1 shall be gray colored polymer concrete construction. Box dimensions for Type I shall be 19" wide x 32" long x 24" deep and come with a cover rated to withstand 15,000 lbs over a 10" square with a minimum test load of 22,568 lbs.

Electrical Pullbox, Type 3 shall be high density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type III shall be 12" wide x 12" long x 12" deep. The Type III box and polymer cover shall be rated to withstand 20,000 lbs.

Electrical Pullbox, Type 5, shall be gray colored polymer concrete construction. Box dimensions shall be 30" wide by 48" long by 36" deep. The box and cover shall be rated at 15,000 lbs over a 10" square with a minimum test load of 22,568 lbs.

Electrical Pullbox, Type 7, shall be gray colored polymer concrete construction. Box dimensions shall be 24" wide by 36" long by 24" deep. The box and cover shall be rated at 15,000 lbs over a 10" square with a minimum test load of 22,568 lbs.

Each cover shall have the logo "TRAFFIC SIGNAL" imprinted from the manufacturer.

C Construction

Install in accordance to the pertinent provisions of standard spec 653.3 and the plan details.

D Measurement

The department will measure Electrical Pullbox (Type) 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.0060.36	Electrical Pullbox Type 1	Each
SPV.0060.37	Electrical Pullbox Type 3	Each
SPV.0060.38	Electrical Pullbox Type 5	Each
SPV.0060.39	Electrical Pullbox Type 7	Each

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

56. Electrical Utility Access Structure, Item SPV.0060.40.

A Description

Perform the work in accordance to the applicable provisions of standard spec 611 and as detailed in the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Electrical Utility Access Structure as each individual unit is 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.0060.40	Electrical Utility Access Structure	Each

Payment for the Electrical Utility Access Structure is full compensation for providing and installing all masonry, reinforcement, conduit connections, steps, and other fittings; frame and casting; for furnishing all excavating, backfilling, disposing of surplus material, and for cleaning out and restoring the work site.

57. Concrete Base Type G, Item SPV.0060.41; Type LB-3, Item SPV.0060.42; Type P, Item SPV.0060.43.

A Description

This special provision describes construction of concrete foundations, including necessary hardware, as shown on the plans, in accordance to the pertinent provisions of standard spec 654 and as hereinafter provided.

B Materials

Concrete masonry shall be Grade A, A-WR, A-FA, or A-IP conforming to the requirements of standard spec 501 of the Standard specifications.

Conduit cast within the bases shall be Schedule 40 polyvinyl chloride (PVC) electrical conduit and shall conform to the requirements of standard spec 652 of the Standard specifications.

Anchor bolts for Type G bases shall be made from high-strength steel 50 KSI minimum yield strength, ASTM A36, and each shall be fitted with a hard washer and heavy hex nut. Each bolt shall have approximately 3 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bolts shall be $\frac{3}{4}$ " x 24".

Anchor bolts for Type LB-3 bases shall be made from high strength steel (50 KSI minimum yield strength), ASTM A36, and each shall be fitted with two hard washers and two heavy hex nuts. Each bolt shall have approximately 6 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bolts for the LB-3 base shall be 1.00 inch by 40 inch including 4 inch L-bend at the bottom.

The Type P base shall include a concrete maintenance platform. The Type P base shall generally be constructed in accordance to the Concrete Control Cabinet Base Standard Detail. The location of the conduits in the base shall be confirmed with the City of Madison. Anchor bolts, nuts, and washers for Concrete Controller Base, Type P, will be provided and installed by the City of Madison when installing signal control cabinets. Bar steel reinforcement shall conform to the requirements of standard spec 505.

C Construction

Place the bases with one side parallel to the centerline of the street.

Provide forms of sufficient depth to provide a minimum of 12 inches of formed base below the finished grade on the low side of the base. Construct the top surface of the base with a $\frac{3}{4}$ inch bevel on the edges with a rubbed finish.

Cast anchor bolts into the base as shown on the plans. Verify bolt circle diameters before constructing the bases.

Furnish and install manufactured elbows in all bases, except as noted on the details. Install elbows that permit conduit to be installed in as nearly straight-line runs as possible, without unnecessary bends. Bases not installed to this standard will not be accepted. Extend existing conduit into the bases. Install an extra elbow as directed by the engineer at each base at the end of a run. Install extra elbows in any new base as directed by the engineer.

Erect poles on the concrete bases until the bases after the concrete has cured for at least seven days.

Provide a rubbed finish down to finished grade for all concrete bases.

D Measurement

The department will measure Concrete Base (Type) 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.0060.41	Concrete Base Type G	Each
SPV.0060.42	Concrete Base Type LB-3	Each
SPV.0060.43	Concrete Base Type P	Each

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire; bar steel reinforcement, and concrete masonry; for providing openings through existing pavement where required; for excavation, including hand-digging as required, backfill, and disposal of surplus materials.

58. Concrete Base Offset, Item SPV.0060.44.**A Description**

This special provision describes construction of concrete street light bases, including necessary hardware, in accordance to the pertinent provisions of standard spec 654 and as hereinafter provided.

B Materials

Concrete masonry shall be Grade A, A-WR, A-FA, or A-IP conforming to the requirements of standard spec 501. Conduit cast within the bases shall be Schedule 40 polyvinyl chloride (PVC) electrical conduit and shall conform to the requirements of standard spec 652. Anchor bolts shall be made from high strength steel (50 KSI minimum yield strength), ASTM A36, and each shall be fitted with two hard washers and two heavy hex nuts. Each bolt shall have approximately 6 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bar steel reinforcement shall conform to the requirements of standard spec 505.

C Construction

Locate proposed bases as shown in the plans in accordance to the Construction Staking Electrical Systems bid item. Where potential underground conflicts exist, locate the existing utility. Hand excavation may be required. MG&E gas requires an inspector to be present when excavating near MG&E gas facilities in accordance to the Utilities Article of these special provisions. The engineer will determine whether to adjust the base location laterally to avoid the conflict or require the use of an Offset Base. Install rock shield between the main and street light base as directed by MG&E personnel. MG&E will supply the rock shield.

Forms shall be of sufficient depth to provide a minimum of 12 inches of formed base below the finished grade on the low side of the base. The top surface of the base shall be level with a 3/4 inch bevel on the edges and shall be given a rubbed finish.

Anchor bolts shall be cast into the base as shown on the plans. Bolt circle diameters shall be verified before constructing the bases.

Manufactured elbows shall be furnished and installed in all bases by the contractor, except as noted on the details. Elbows shall be installed to permit conduit to be installed in as nearly straight-line runs as possible, without unnecessary bends. Bases not installed to this standard will not be accepted.

Existing conduit shall be extended into the bases. Elbows shall conform to the requirements of the type of conduit entering the base. Each base at the end of a run shall have an extra elbow installed as directed by the engineer.

Extra elbows shall also be installed in any base as directed by the engineer. Poles shall not be erected on the concrete bases until the bases have cured for at least seven days. All concrete bases shall require a rubbed finish down to finished grade.

D Measurement

The department will measure Concrete Base Offset 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.0060.44	Concrete Base Offset	Each

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire; bar steel reinforcement, and concrete masonry; for providing openings through existing pavement where required; for excavation, including hand-digging as required, backfill, and disposal of surplus materials.

59. Transformer Base Steel 16-Inch, Item SPV.0060.45.

A Description

This special provision describes furnishing and installing steel transformer bases as shown on the plans and as follows.

B Materials

The steel transformer bases shall be hot-dipped galvanized in accordance to ASTM designation A123. The bases shall have slotted bolt openings. Steel connecting bolts, size 1.00 inches by 4 inches, hold down lugs for 1.00 inch bolts and nuts and washers shall be

furnished. Verify the bolt diameter, projection and bolt circle dimension required for each application. Ensure the concrete bases and pole bases are compatible with the transformer bases and bolts. All such material shall be hot-dipped galvanized and be of sufficient size and strength to exceed the capacity of the bases. The 16 inch base shall conform to the detail in the plan.

Furnish to the engineer at the time of delivery of the bases, a manufacturer's certificate of compliance that the base and hardware as furnished meets the above requirements.

C Construction

Install transformer bases in accordance to the manufacturer's instructions, and as shown on the plans.

D Measurement

The department will measure Transformer Bases Steel (Size), as each individual transformer base 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.0060.45	Transformer Base Steel 16-Inch	Each

Payment is full compensation furnishing and installing transformer bases, streetlight pole wire, mechanical grounding connector and related hardware; for leveling shims when required.

60. **Monotube Pole, Type 9, Item SPV.0060.46; Monotube Pole, Type 12, Item SPV.0060.47; Monotube Arm, 20-Foot, Item SPV.0060.48; Monotube Arm, 30-Foot, Item SPV.0060.49; Monotube Arm, 35-Foot, Item SPV.0060.50.**

A Description

This section describes furnishing and installing poles and monotube arms for traffic signals.

B Materials

Design support structures, consisting of poles and arms, conforming to the completed maximum loading configurations and to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years. Design to withstand a 3 second gust wind speed of 90 mph. Do not use the methods of appendix C of those AASHTO standards.

Design support structures to the AASHTO fatigue category criteria III.

Along with the materials list, submit a certificate of compliance certifying that poles as furnished conform to the above structural performance requirements. Ensure that the certificate of compliance is on the manufacturer's letterhead, signed by an authorized company officer, and notarized. Send a copy of the certificate and a copy of the pole shop drawings to the engineer. Furnish poles from an approved manufacturer.

Furnish shop drawings as specified in standard spec 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient detail to allow satisfactory review and show the outside diameters of the pole at the butt, top, and splice locations the plans show. Show the width, depth, length, and thickness of all material, and list all pertinent ASTM specification designations and metal alloy designations together with the tensile strength of all metallic members.

After completing the manufacturing process, ensure that all shafts a nominal 40 feet or less in length for lighting poles only, are round, of one-piece construction, and of the specified length.

Construct poles of materials having sufficient rigidity that, with all material installed and in place as the plans show, the centerline of the shaft is vertical. Include dampers for poles as needed. If the engineer determines that vibration is a problem after a pole has been installed, install dampeners as the engineer directs.

After all welding has been completed, the exterior surface of the pole, arm, and hardware shall be thoroughly cleaned and shall be free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances. The poles and arms shall be hot-dipped galvanized in accordance to the requirements of ASTM Designation A123. The hardware shall be hot-dipped galvanized in accordance to ASTM Designation A153. The galvanized finish shall be bright, shiny, and uniform. Matted or dull pole sections will not be accepted.

For monotube pole, provide anchor rods, nuts and washers for the contract base (Type 10 and Type 13).

Provide a reinforced hand hole measuring 5 inches by 8 inches. Locate the hand hole approximately 18 inches from the bottom of the pole base plate to the center of the door. For the hand hole, include an access cover mounted to the pole by two 1/4" -20 x 3/4" hex-head stainless steel bolts.

Provide a grounding lug complete with mounting hardware as required, inside the pole, 180-degrees from the handhole side of the pole.

Provide access to the grounding L-clip from the hand hole. Before galvanizing the pole, weld the grounding L-clip directly opposite the hand hole on the inside wall of the pole. Equip the top of the pole shaft with a removable, ventilated cap held securely in place by at least one 1/4" -20 x 3/4" hex-head stainless steel set screw.

Ensure that all castings are clean, smooth, and with all details well defined and true to pattern.

Attach base plates firmly to the pole shaft by welding or other approved method. Each steel pole shall have a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. The label shall state the shaft length, manufacturer's name, and year of manufacture. The label shall conform to the curvature of the pole and not have any sharp edges or corners. All rivets shall be smooth inside and outside of the pole.

Monotube arms shall have:

- A mounting device welded to the pole end of the monotube arm that allows the attachment of the arm to a pole
- Stiffeners or gussets if required between the arm tube and the arm mounting device to provide adequate strength to resist side loads
- A wiring raceway

C Construction

Under each bid item, furnish and install poles, ventilated pole caps, arms, and all necessary miscellaneous hardware needed to complete the installation of the poles and arms.

Install dampeners as the plans show and for poles and arms used in configurations susceptible to vibration. If the engineer determines that vibration is a problem after a pole and arm has been installed, install dampeners as the engineer directs.

After completing erection using normal pole shaft raking techniques, ensure that the centerline of the shaft is vertical.

D Measurement

The department will measure Monotube Pole (Type), and Monotube Arm (Length) by each individual unit, acceptably completed.

E. Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.46	Monotube Pole, Type 9,	Each
SPV.0060.47	Monotube Pole, Type 12,	Each
SPV.0060.48	Monotube Arm, 20-Foot	Each
SPV.0060.49	Monotube Arm, 30-Foot	Each
SPV.0060.50	Monotube Arm, 35-Foot	Each

Payment is full compensation for furnishing and installing all materials. Payment for Monotube Pole, Type 9 (Item SPV.0060.46) also includes anchor rods, nuts and washers for the contract base (Type 10). Payment for Monotube Pole, Type 12

(Item SPV.0060.47) also includes anchor rods, nuts and washers for the contract base (Type 13).

61. Traffic Signal Control Cabinet, Item SPV.0060.51.

A Description

This specification describes furnishing an equipped NEMA TS2 Type 1 traffic signal control cabinet. The traffic signal controller and malfunction management unit (MMU) are to be furnished under separate bid items.

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 and materials not specifically described but required in order to perform the intended functions in the cabinet.

B Materials

B.1 Cabinet

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 under separate bid items.

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 outside. 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.

B.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.

Electrically bond the door to the rest of the cabinet with a braided copper grounding conductor. The length of the grounding conductor shall allow the door to swing fully open, without using the stop bar, without stretching or breaking the grounding conductor. The grounding conductor shall not interfere with normal door operation.

Provide a door switch for the main cabinet door. When the door is opened the switch shall send a signal to the controller sufficient for the controller to log an alarm.

B.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.

B.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 on the rear cover of the police panel 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.

B.5 Terminal Facility

The terminal facility panel shall be 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. Identify 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.

B.6 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.

B.7 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:

1. Control coil
2. L1 in
3. L2 in
4. Neutral in and control coil
5. L1 out
6. 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.

B.8 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.

Opto-isolate 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.

B.9 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)

<u>Position</u>	<u>Switch Label</u>	<u>Function</u>
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

Locate the following switches behind the police access door:

- a. Signal/Off
- b. Flash/Normal
- c. Hand/ auto
- d. Coiled hand control and cable

The above switches shall function as follows:

Off: Signals Dark

Signal: Signals On and operating as follows:

<u>Auto</u>	<u>Hand</u>
Flash: Signals Flash	Signals Flash
Normal: Signals Normal	Signals Advance by use of hand control

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:

<u>Position</u>	<u>Function</u>
Up	Detector Disabled
Center	Detector Enabled
Down	Detector Called

B.10 Power Panel

B.10.1 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.

B.10.2 Bus Bar

Provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

B.10.3 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.

B.10.4 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 mega ohms 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.

B.10.5 Bus Relay

Provide a normally-open, 60 amp, solid state relay.

B.10.6 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.

B.10.7 Power receptacles

Mount a 120 VAC 20 amp, NEMA 5-20R GFCI 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.

B.10.8 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.

B.11 Load Switches

Provide 16 solid state load switches conforming to the requirements of Section 6.2 of the NEMA TS2 Standard.

B.12 Flashers

Provide one solid state flasher conforming to the requirements of section 6.3 of the NEMA TS2 Standard. .

B.13 Flash Transfer Relays

Provide four flash transfer relays conforming to the requirements of section 6.4 of the NEMA TS2 Standard.

B.14 Cabinet Power Supply

Supply one cabinet power supply, 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.

B.15 Bus Interface Units (BIU)

Provide three BIUs conforming to the requirements of section 8 of the NEMA TS2 Standard. Provide two BIUs with the main panel and one BIU with one of the detector racks.

B.16 Shop Drawings

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 the city for review and approval before manufacturing the cabinet. Also provide all drawings as .dgn or dwg files. Revise the files and drawings in accordance to city's comments and resubmit, both printed and .dgn/dwg files. The city will complete its review within five work days from receipt of the cabinet design.

B.17 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

B.18 Cabinet Delivery

Deliver the fully wired and equipped cabinets and manuals to the City of Madison Traffic Engineering Electrical Shop, 1120 Sayle Street, Madison, WI, 53704. Delivery shall be on a business day between 8:00 AM and 2:00 PM. Call the City of Madison Traffic Engineering Electrical Shop (Dennis Rowe, (608) 266-9034) a minimum of one 24-hour business day ahead of the desired delivery time to schedule the delivery and confirm the City of Madison's business days.

B.19 Vendor Warranty

The vendor shall warrant the performance and construction of the fully-wired cabinet to meet the requirements of this specification, and shall warrant all wiring parts, components, and appurtenances against defects in design, material and workmanship for a period of one year from the date of installation. In the event defects and failures become apparent during this time, the vendor shall repair and/or replace all defective parts or appurtenances at no additional expense to the city. This specification is to construe that any part, or parts, that fail to function properly shall be replaced at no charge to the city.

C (Vacant)

D Measurement

The department will measure Traffic Signal Control Cabinet by each unit, acceptably completed and delivered to the City of Madison.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.51	Traffic Signal Control Cabinet	Each

Payment is full compensation for furnishing and delivering all materials to the City of Madison, 1120 Sayle Street.

62. Traffic Signal Controller, Item SPV.0060.52.

A Description

This special provision describes furnishing a traffic signal controller with auxiliary equipment to the City of Madison.

B Materials

Furnish the following:

1. Econolite Cobalt controller with HTR, data key, and ethernet
2. FSK TLM 25 pin for this controller
3. Econolite TIO board with harness
4. D connector interface harness and board

C (Vacant)

D Measurement

The department will measure Traffic Signal Controller by each unit, acceptably completed and delivered to the City of Madison.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.52	Traffic Signal Controller	Each

Payment is full compensation for furnishing and delivering the signal controller, and all auxiliary equipment, to the City of Madison, 1120 Sayle Street.

63. Malfunction Management Unit (MMU), Item SPV.0060.53.

A Description

This special provision describes furnishing a shelf-mountable, 16-Channel, solid-state MMU with Ethernet capability to the City of Madison.

B Materials

Provide one shelf-mountable, 16 channel, solid-state MMU with Ethernet capability. The MMU shall meet the requirements of Section 4 of the NEMA TS2 Standard. The MMU shall be capable of the following:

- Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don't Walk) on the same channel.
- Determining if the field signal input states detected as active or inactive by the MMU correspond with the data provided by the Controller Unit.
- Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.
- Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected/permissive left and right turn movements).
- Event logging for the following; AC Line log, Prior/Previous Faults log, and Monitor Reset Log. All log entries shall include a date and time stamp.
- All monitor functions shall be capable of being programmed through the front panel, without the need for computers or special programs cards.
- A built-in Diagnostic Wizard shall be provided that displays detailed diagnostic information regarding the fault being analyzed. This mode shall provide a concise view of the signal states involved in the fault, pinpoint faulty signal inputs, and provide guidance on how the technician should isolate the cause of the malfunction.

The MMU shall have an LCD display that allows for viewing of log files and field indications, as well as the viewing and setting of date and time and configuration parameters.

C (Vacant)

D Measurement

The department will measure Malfunction Management Unit by each unit, acceptably completed and delivered to the City of Madison

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.53	Malfunction Management Unit	Each

Payment is full compensation for furnishing and delivering the Malfunction Management Unit to the City of Madison, 1120 Sayle Street.

64. Traffic Signal Ethernet Switch, Item SPV.0060.54.

A Description

This special provision describes furnishing and installing an ethernet switch in an existing traffic signal cabinet, as specified in standard specs 651, 655, 670, 674, and 675, as shown on the plans, and as provided hereinafter.

B Materials

Furnish Cisco IE-2000-8TC-G-L Ethernet switches as shown in the plans. Provide all necessary cables between the ethernet switch and device or devices as shown in the plans.

C Construction

Install the traffic signal ethernet switch in an existing traffic signal cabinet. Connect it to devices as shown on the plans, according to the manufacturer's recommendation, and as directed by the engineer.

Contact Mike Christoph at the City of Madison Traffic Engineering shop at (608) 266-9031 a minimum of 7 working days in advance to coordinate installing equipment in existing traffic signal cabinet.

D Measurement

The department will measure Traffic Signal Ethernet Switch as each individual traffic signal ethernet switch, 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.0060.54	Traffic Signal Ethernet Switch	Each

Payment is full compensation for furnishing and installing an ethernet switch, all necessary incidental wiring and hardware, making all necessary connections.

65. Traffic Signal Heads 12-Inch, 3-Section, Item SPV.0060.55; 4-Section, Item SPV.0060.56; Pedestrian, Item SPV.0060.57; Pedestrian Countdown, Item SPV.0060.58.

A Description

This special provision describes furnishing and installing vehicle and pedestrian signals with LED indications in accordance to the standard specifications and these special provisions.

B Materials

Furnish circular and arrow LED modules from the department's approved product list and conforming to ITE VTC SH-LED.

Furnish 12-Inch Pedestrian LED Full Hand/Full Man Overlay Module conforming to the following requirements:

1. Module shall fit in a standard 12" x 12" housing. A foam weather stripping, approximately 1/4" x 1/4", shall be applied to the outside edge of the front face. The housing is not included in this item.
2. Display size shall be 9" minimum.
3. Each symbol shall be fully filled when illuminated. Outlines of the hand or man are not acceptable.
4. Modules shall come with spade adapters at the end of wire of sufficient length to reach the terminal strip in the signal housing.
5. Module shall meet all requirements and recommendations of the current Manual on Uniform Traffic Control Devices (MUTCD) and the current Performance Specifications of the Institute of Transportation Engineers (ITE).
6. The module shall be warranted in full for a minimum of five years.

Furnish 12-Inch Pedestrian Countdown LED signal timer conforming to the following requirements:

1. Timer shall fit in a standard 12" x 12" housing. A standard size gasket shall be supplied. The housing is not included in this item.
2. Numeral size shall be 9" minimum.
3. The timer shall automatically calculate and display the length of the remaining pedestrian change interval (WALK display not included).
4. A control wire shall be provided so that when 120V AC current is applied, the timer will immediately go dark. This control wire will be used by the city when the signal is preempted and the length of the pedestrian change interval is shortened.
5. Modules shall come with spade adapters at the end of wire of sufficient length to reach the terminal strip in the signal housing.
6. Timer shall meet all requirements and recommendations of the current Manual on Uniform Traffic Control Devices (MUTCD).
7. The timer shall be warranted in full for a minimum of five years.

Provide all pedestrian signals with tunnel visors. Provide all vehicle signals with cutaway visors.

Provide snow shedding shield on each signal indication on all signals mounted on monotube arms or trombone arms. The shield shall be impact resistant polycarbonate, designed and installed specifically to reduce snow accumulation, while not allowing water to enter or reside in the signal unit. If there are not any far side signals on monotube arms or trombone arms, then install snow-shedding shields on each signal indication of the far right signal.

Pedestrian countdown timers have a control wire so that when 120V AC current is applied, the timer will immediately go dark. This control wire shall be wired back to the signal control cabinet.

Provide either CH-SIG, Siemens LFE/SG, McCain, or Peek/TCT or a make and model approved by City of Madison Traffic Engineering for all vehicle and pedestrian signal heads. Provide drain channels so that rainwater does not pond on top of the units.

Make all vehicle and pedestrian signal heads with polycarbonate material, UV stabilized, with color impregnated in the material. All features and performance shall meet the requirements outlined in the latest revision of the Institute of Transportation Engineers' publication, "Adjustable Face Vehicular Traffic Control Signal Heads." The front face and all visors (inside and outside) shall be flat or semi-gloss black. All other exterior parts shall be Federal Highway yellow. Use only exterior hardware made of stainless steel.

C Construction

Construct according to standard spec 658.

D Measurement

The department will measure Traffic Signal Heads (Inch) (Section/Type) 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.0060.55	Traffic Signal Heads-12 Inch-3 Section	Each
SPV.0060.56	Traffic Signal Heads-12 Inch-4 Section	Each
SPV.0060.57	Traffic Signal Heads-12 Inch-Pedestrian	Each
SPV.0060.58	Traffic Signal Heads-12 Inch-Pedestrian Countdown	Each

Payment is full compensation for furnishing and installing all materials.

66. Backplates Signal Face 3-Section, 12-Inch, Item SPV.0060.59; Backplates Signal Face, 4-Section 12-Inch, Item SPV.0060.60.

A Description

This special provision describes furnishing and installing backplates for signal faces.

B Materials

Furnish Backplates Signal Face (Size) that are in accordance to the pertinent requirements of standard spec 658 and these special provisions.

Backplates for 12" signal heads shall provide a 5" wide black band around the signal head. The backplates shall be an approved black rigid material, such as vacuum formed ABS plastic. The backplates shall match the signal heads being furnished under this bid, equipped with all necessary holes, mounting devices. All mounting hardware shall be stainless steel.

C Construction

Install the backplates in accordance to standard spec 658.3, the manufacturer's instructions, and as shown on the plans.

D Measurement

The department will measure Backplates Signal Face (Description) 12-Inch 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.0060.59	Backplates Signal Face, 3 Section 12-Inch	Each
SPV.0060.60	Backplates Signal Face, 4 Section 12-Inch	Each

Payment is full compensation for furnishing and installing all materials.

67. Driver Feedback Radar LED Speed Sign, Item SPV.0060.61.

A Description

This special provision describes furnishing and installing a 15 inch character display radar driver feedback sign and associated power module.

B Materials

Furnish a BlinkerRadar 15" Character Display Radar Driver Feedback Sign and associated power module (or equivalent driver feedback sign and power module from WSB & Associates, Inc. Provide all necessary materials required to mount the radar driver feedback sign as shown on the overhead structure as shown in the plans and as recommended by the manufacturer.

C Construction

Install the Radar Driver Feedback Sign and associated power module on the overhead structure as shown in the, according to the manufacturer's recommendation, and as directed by the engineer.

D Measurement

The department will measure Driver Feedback LED Speed Sign 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.0060.61	Driver Feedback LED Speed Sign	Each

Payment is full compensation for furnishing and installing a Driver Feedback LED Speed Sign, all necessary incidental wiring and hardware, making all necessary connections.

68. Reduce Speed LED Sign, 72" x 12", Item SPV.0060.62.

A Description

This special provision describes furnishing and installing a Reduce Speed LED Sign, as shown on the plans, and as provided hereinafter.

B Materials

Furnish an LED Reduce Speed message board sign to the specifications shown on the plan detail. The sign shall be able to accept a 12VDC power input from the Driver Feedback LED Speed Sign Item to be provided (Item SPV.0061.61) and provide a flashing output as directed.

C Construction

Install the Reduce Speed LED Sign on an overhead monotube arm and connect to the Driver Feedback LED Speed as shown on the plans, according to the manufacturer's recommendation, and as directed by the engineer.

Contact Mike Christoph at the City of Madison Traffic Engineering shop at (608) 266-9031 a minimum of 7 working days in advance to coordinate installing equipment and providing power to the equipment.

D Measurement

The department will measure Reduce Speed LED Sign, 72" x 12" 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.0060.62	Reduce Speed LED Sign, 72" x 12"	Each

Payment is full compensation for furnishing and installing all materials.

69. **Concrete Curb and Gutter 24-Inch Type D Special, Item SPV.0090.01; 30-Inch Type D Special, Item SPV.0090.02; 24-Inch Type X Special, Item SPV.0090.03; 30-Inch Type X Special, Item SPV.0090.04; 24-Inch Type E Special, Item SPV.0090.05.**

Construct concrete curb and gutter as shown in the plans, and in accordance to standard spec 601.

70. **Reflective Sign Post, Item SPV.0090.06.**

A Description

This special provision describes furnishing and installing new signposts, reflective signposts, and or powder coated signposts for signs. All signposts shall be round tubular steel and installed as shown in the plans.

B Materials

All materials shall conform to the standard specifications for hot rolled carbon sheet steel, commercial quality, ASTM A-570-GR-33 for zinc coated tubing to resist corrosion. The tube shall be 2-inch, Schedule-40. Reflective signpost shall have two sheets of engineer grade yellow sheeting completely around pipe as shown in the plans

C Construction

Install the signposts at the locations shown on the plans and approved by the engineer. If the finished grade cannot be determined, ask the engineer to identify the final grade. All signs shall be in a true vertical position. Install all signs to conform to the latest edition of the Manual on Uniform Traffic Control Devices. Also, locate all underground utilities prior to placing signposts. Cut off excess length of post in the field to provide the desired sign clearance.

All materials damaged during construction shall be replaced with new items at no cost to the department.

D Measurement

The department will measure Reflective Sign Post in accordance to the length shown in the miscellaneous quantities; signposts will be measured by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.06	Reflective Sign Post	LF

Payment is full compensation for furnishing and installing all necessary posts, reflective sheeting, finials, and hardware and anchors. All materials damaged during construction shall be replaced with new items at no cost to the department.

71. Utility Trench Patch Type III, Item SPV.0090.07.

A Description

Constructed work under this item to conform with the requirements of Article 502 and Standard Detail Drawing 5.2.4 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition for Type III Trench Patch.

B Material

Provide new crushed stone meeting the requirements of standard spec 305, Base Aggregate Dense, 1 ¼-Inch. Provide new asphaltic surface per standard spec 465.

C Construction

Install Utility Trench patch in accordance to all applicable provisions of Article 502 and SDD 5.2.4 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition for Type III Patch.

D Measurement

The department will measure Utility Trench Patch Type by III the linear foot, acceptably completed, measured along the centerline of the patch.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.07	Utility Trench Patch Type III	LF

Payment for Utility Trench Patch is full compensation for furnishing all materials necessary to restore the pavement, but not include the Select Fill material required to backfill the trench; and includes placing, consolidating and compacting the materials used to restore the pavement' and all other work incidental the installation of utility trench patches.

72. Select Fill for Sanitary Sewer, Item SPV.0090.08.

A Description

This special provision describes furnishing and placing select fill over the sanitary sewer main and laterals along the entire length of the pipe.

B Materials

Provide select fill meeting the requirements of Article 202.2(b) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition for select fill for sanitary sewer mains and laterals.

C Construction

Install select fill for sanitary sewer in accordance to all applicable provisions of Article 502.1(e) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

D Measurement

The department will measure Select Fill for Sanitary Sewer in length by the linear foot acceptably completed. Measurement will be completed along the centerline of the installed sanitary sewer pipe and includes the length through Sewer Access Structures.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.08	Select Fill For Sanitary Sewer	LF

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

73. **Sanitary Sewer Pipe PVC, 6-Inch, Item SPV.0090.09.**

A Description

This special provision describes installing Sanitary Sewer Pipe PVC, 6-Inch at the alignment and grades shown on the plan. All sections of the sewer mainline are required to pass a low pressure air test, mandrel test, and a visual inspection via televising as specified in Article 501.3(b) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition. Costs associated with the testing of the gravity main are included in the contract unit price bid for this item.

B Materials

Provide solid-wall Poly (Vinyl Chloride) (PVC) sanitary sewer pipe and fittings meeting the requirements for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, ASTM D 3034.

Provide pipe and fittings having a standard dimension ratio of 26 or 35 as called out on the plan set.

Assemble joints using or elastomeric or solvent cement as recommended by the pipe manufacturer.

The assembled joints will be required to pass the performance tests as required in ASTM D3212 elastomeric or ASTM D2564-solvent cement.

Sewer mains deeper than 12' will be required to meet the standards or ASTM D3034 SDR-26.

The pipe materials (ASTM D3034 SDR 35 or 26) will be the same pipe material type from sewer access structure to sewer access structure.

C Construction

Install the sanitary sewer pipe in accordance to all applicable provisions of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Remove all abandoned or existing material located in the new sanitary sewer alignment. Removal of material (including existing sanitary sewer/water main/etc) is incidental to this bid item.

Use manufactured wye fittings to install new laterals to the new main as called for on the plans; provide and place in accordance to standard spec 503 for Public Works Construction – Latest Edition. Do not install saddle type wyes without prior approval from the city of Madison.

Complete testing and televising of new sewer lines in accordance to Article 501 of the City Standard Specifications for Public Works Construction - Latest Edition.

D Measurement

The department will measure Sanitary Sewer Pipe, 6-Inch in length by the linear foot, acceptably completed.

Sanitary Sewer Pipe PVC, 6” will be measured through sanitary sewer structures, from the center of sanitary sewer casting to center of sanitary sewer casting. Sanitary Sewer Pipe (Size) not terminating at a sanitary sewer structure will be measured to the end of pipe. Deductions from the measure length will not be made for wye installations.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.09	Sanitary Sewer Pipe PVC, 6-Inch	LF

Payment is full compensation for furnishing all materials, necessary to perform the work; excavation of the trench, except tunneling and jacking; installation and removal of sheeting and bracing; removal of water from the trench; disposal of surplus material from the trench; backfilling the trench and compaction of the backfill material; embankment over the sewer using surplus material from the excavation of the trench; bedding the pipe; laying the pipe and installing the fittings and accessories; jointing and sealing of joints in pipe, fittings and accessories; encasement, where specified; connections to existing structures; cleaning out the sewer; restoring the site; and all other work incidental to the installation of sanitary sewers.

74. **Sanitary Sewer Lateral, Item SPV.0090.10.**

A Description

This work consists of excavating required trenches, connecting the lateral to the mainline pipe, placing bedding material, connecting the new lateral to the existing lateral, all required fittings, couplings, and bends, backfilling and compacting the trenches and restoring the work site as provided by the plans, specifications and contract. This work also consists of locating, identifying, and abandoning “inactive” laterals.

B Materials

Furnish sanitary sewer pipe and fittings that are solid-wall Poly Vinyl Chloride (PVC) and that conform to the requirements of the Specification for PVC Sewer Pipe and Fittings, ASTM D 3034.

Provide sanitary sewer pipe and fittings having a standard dimension ratio of 26 and 35.

Furnish elastomeric or solvent cement joints made as recommended by the manufacturer.

Sewer lateral pipe deeper than 12' will be required to be ASTM D3034 SDR-26.

Compression coupling connections to the existing sewer laterals in conformance to Standard Detail Drawing 5.3.3, Coupling detail, from the City of Madison Standard Specifications for Public Works Construction- Latest Edition.

C Construction

Install laterals in accordance to Article 503.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

The use of 45-degree bends is not permitted except with connecting to a wye at the sanitary sewer main. Bends of 22.5 degrees or less may be used, provided they are separated by at least two feet of straight pipe. Provide new lateral pipe having a minimum diameter of four inches that is also greater than or equal to the diameter of the adjoining lateral. Connecting a new lateral pipe to an existing lateral having a smaller diameter than the existing lateral is not permitted.

Per the City of Madison Standard Specifications for sanitary sewer lateral construction on street reconstruction projects, contractors are encouraged to begin installation of sanitary lateral pipe at the proposed sewer main. If contractor starts excavation for the lateral at the property line, it will be at the contractor's risk. No sanitary sewer laterals were located and surveyed prior to design. Laterals locations on the plans are based upon TV data of the sewer mains and city Utility Records. If tree conflicts are encountered during the sanitary lateral replacement process, contractors are instructed to follow the new policy set in the Standard Specifications for Public Works Construction, Latest edition. No Utility Line Openings (ULOs) will be granted for the inability to locate the sanitary lateral at the property line. Any extra sidewalk removal will not be compensated to the contractor looking for an existing sanitary lateral at the property line.

Contractors will be required to have a locator device on-site if they intend to start laying lateral pipe at the property line to minimize the amount of extra sidewalk removal. Each sanitary lateral will have a maximum of 4 sidewalk squares removed and replaced. No additional compensation will be awarded beyond this amount for the replacement of a sewer lateral. If laterals called for reinstatement on the plans are to be plugged under the direction of the engineer on-site, contractors are required to use a sonde device to confirm that the laterals that are called abandonment are not active, Couple the junction of a new lateral pipe to an existing lateral pipe as required in the field by the City of Madison. Saw cut the existing main to accommodate a clean joint for the installation of the compression couplings. Placed the coupling as directed by the City of Madison and per Standard Detail Drawing 5.3.3, Coupling Details, from the City of Madison Standard Specifications for Public Works Construction - Latest Edition

D Measurement

The department will measure Sanitary Sewer Lateral, by the linear foot, acceptably completed.

The quantity to be paid will be measured from the connection of the mainline sewer pipe to the connection of the existing sanitary lateral along the centerline of the 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	Sanitary Sewer Lateral	LF

Payment is full compensation for determining whether laterals are “active”, “inactive”, or abandoned, and the exact location and size of “active” lateral reconnections; all labor, tools, equipment and incidentals necessary to complete the work.

Connection of lateral to the proposed sewer main and the first 5 feet of lateral pipe associated with the connection is paid under bid item Sanitary Lateral Reconnect.

Select fill for sanitary sewer later is paid under bid item Select Fill For Sanitary Sewer. The quantity for this item may be increased or decreased beyond the limits set forth in Article 104 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

75. **Furnish and Install 6-Inch Pipe and Fittings, Item SPV.0090.11; 8-Inch, Item SPV.0090.12; 10-Inch, Item SPV.0090.13; 12-Inch, Item SPV.0090.14.**

A Description

Furnish, install and test new water main and fittings. Work for this item also includes:

1. Thrust restraints.
2. Temporary flushing devices (blow-offs and/or temporary hydrants).
3. Polyethylene encasement.
4. Temporarily raising or lowering existing water services.
5. Exposing existing water main to verify location and depth.
6. Concrete and asphalt pavement removal.
7. Restoring the site.

B Materials

Refer to Article 702 of the *City Standard Specifications* and this section.

All materials necessary to perform the work, including:

1. Pipe and accessories.
2. Fittings and accessories.
3. Sleeves, clamps, tie rods, plugs.
4. Thrust blocking and/or restrained-joint gaskets.
5. Polyethylene encasement.
6. Bedding material to cover the pipe.

C Construction

Refer to Article 703 the *City Standard Specifications* and this section.

Pipe Laying and Bedding:

1. Pipes with a minimum of 6-feet and a maximum of 7-feet of cover from final grade.
2. For line or grade adjustments of 24-inches or less, use offsets in lieu of bend fittings.
3. Inspect all pipe and fittings for damage and cleanliness prior to lowering into the trench. Any costs due to the repair of damaged valves and hydrants caused by sand or silt in the pipe will be assessed.
4. Never roll or push the pipe into the trench from the bank. Always lower the pipe into the trench using mechanical equipment.
5. Do not place chlorine in a pipe during installation that will not be filled and flushed within 45 days of installation.

Slip Joints:

1. A slip joint is made by compressing a rubber gasket between a bell cast in the end of one pipe and the plain end of the pipe to be joined.
2. Assemble in accordance to AWWA C600 - latest revision, including:
3. Thoroughly clean the groove and the bell socket of the pipe or fitting, and the plain end of the mating pipe.
4. Using a clean gasket of the proper design for the joint to be assembled, make a small loop in the gasket and insert it in the socket, making sure the gasket faces the correct direction and that it is properly seated.

5. Apply lubricant to the gasket and plain end of the pipe in accordance to ANSI/AWWA C111/A21.11 - latest revision. Only use lubricant supplied by the pipe manufacturer.
6. Be sure that the plain end of the pipe is beveled, as square or sharp edges may damage or dislodge the gasket and cause a leak.
7. Push the plain end into the bell of the pipe, keeping the joint straight while pushing.
8. Deflect the pipe as required only after the joint is assembled.
9. Connect the bonding straps after the pipe is in place to ensure conductivity across the joint.

D Measurement

The department will measure Furnish and Install (Inch) Pipe and Fittings acceptably completed in length by the linear foot, to the nearest half foot for each size (diameter) of pipe installed. Measured along the centerline of the pipe, from center to center of valves and fittings. No deductions from the measured lengths for fitting installations.

E Payment

Paid at the contract unit prices under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.11	Furnish and Install 6 Inch Pipe and Fittings	LF
SPV.0090.12	Furnish and Install 8 Inch Pipe and Fittings	LF
SPV.0090.13	Furnish and Install 10 Inch Pipe and Fittings	LF
SPV.0090.14	Furnish and Install 12 Inch Pipe and Fittings	LF

Payment for temporary flushing hydrants and/or blow-offs will be considered only if subsequently required as a result of plan revisions issued by the engineer:

1. A payment of \$1,500.00 will be made for any authorized temporary flushing hydrant.
2. Any hydrant used for temporary flushing purposes may not become a permanent fixture anywhere in the system.
3. A payment of \$500.00 will be made for any 2-inch or larger blow-off device.
4. Temporary hydrants or blow-offs resulting from a plan revision must be reviewed by the engineer for payment considerations.

Additional Fittings, where authorized, are to be paid as follows:

DESCRIPTION	UNIT	PRICE
6-Inch Fitting	Each	\$705.00
8-Inch Fitting	Each	\$950.00
10-Inch Fitting	Each	\$1,075.00
12-Inch Fitting	Each	\$1,200.00

Total fitting quantity to be balanced out by any fittings identified on the plan set to be furnished and installed, but that were not furnished and installed.

Additional tee fittings:

1. Paid or credited as 1½ fittings.

Additional offset and cross fittings:

1. Paid or credited as 2 fittings.

76. Extend and Reconnect 1-Inch Service Lateral, Item SPV.0090.15.

A Description

Connect-to and extend existing water service laterals to the new water main. Restore any disturbed terrace areas, as necessary.

B Materials

Refer to Article 702 of *the City Standard Specifications*.

C Construction

Refer to Article 703 of *the City Standard Specifications*, the General Provisions of Water Main herein, and this section.

Excavate to expose the existing water main at the existing service connection.

Cut-off the service pipe at the exposed location.

Couple the disconnected end of the service with a new service of the designated size.

Extend the new copper lateral to the new water main and connect the new service tubing to the corporation stop on the new water main.

D Measurement

The department will measure Extend and Reconnect 1-Inch Service Lateral, acceptably completed by the linear foot along the centerline of the pipe at the surface, from the center of the water main to the point of the connection.

E Payment

Paid at the contract unit prices under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.15	Extend and Reconnect 1-Inch Service Lateral	LF

Payment is full compensation for disconnecting existing water service laterals, extending the existing laterals with new copper tubing and reconnecting the laterals to new water mains, including furnishing all materials, labor, tools, equipment and incidentals necessary to complete this item of work

77. Select Fill for Water Main, Item SPV.0090.16.

A Description

Install select imported fill from outside of the project, to be placed in the trenches as specified in the contract documents.

Excess excavated material resulting from this work is considered surplus material; dispose of at no additional cost to the department or the city.

B Materials

Refer to Article 702 of the *City Standard Specifications* and this section.

Under no circumstances will asphalt material of any size or foreign debris be allowed in the backfill material.

C Construction

Refer to Article 703 of the *City Standard Specifications*.

D Measurement

The department will measure Select Fill for Water Main by length in feet along the centerline of the pipe at the surface for new installations, to the nearest foot, acceptably completed.

When excavating for maintenance or abandonment items:

Measured along the centerline of the trench.

The engineer may require truck delivery tickets to substantiate compensation.

E Payment

Paid at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.16	Select Fill—For Water Main	LF

Payment is full compensation for furnishing and installing select fill in water main and water lateral installation trenches, including all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

78. Furnish and Install 2-Inch Foam Board Insulation, Item SPV.0090.17.

A Description

Install foam board insulation to insulate water mains and/or water service laterals.

Foam board insulation is required when:

1. The top of water main has 5-feet of cover or less.
2. The water main crosses below storm sewer.
3. When otherwise specified on the drawings or as directed by the engineer.

B Materials

Refer to Article 702 of the *City Standard Specifications* and this section.

Foam Board requirements:

1. Thickness: 2-inch (minimum).
2. Minimum strength: 25 psi.
3. High-density polystyrene board.
4. 4-foot by 8-foot sheets.

C Construction

Refer to Article 703 of the *City Standard Specifications* and this section.

After pipe installation, backfill and compact the trench to a level 6-inches above the top of pipe. Place insulation board in the trench centered over the pipe on a level surface in order to provide proper support for the insulation.

Following installation of the foam board, backfill and compact the remainder of the trench.

D Measurement

The department will measure Furnish and Install 2-Inch Foam Board Insulation measured along the centerline of the pipe at the surface, by length in feet of pipe effectively insulated, acceptably completed.

E Payment

Paid at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.17	Furnish and Install Foam Board Insulation	LF

Payment is full compensation for furnishing and installing 2-inch foam insulation boards, including all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

79. Loop Detector Lead-In Cable Special, Item, SPV.0090.18.

A Description

This special provision describes furnishing and installing loop detector lead in cable according to standard spec 655.

B Materials

Furnish 0.25 inch diameter, 4-conductor, #18 AWG, waterproof, shielded, polypropylene insulation cable, with HDPE outer jacket meeting IMSA specifications. Provide loop detector lead in cable to be smooth on the outside without any ripples or ribbing from cable wires.

C Construction

Furnish and install one cable for every two loops from each loop handhole to the intersection control cabinet via the most direct route, without intermediate splicing. Most of the loops will be new and are shown on the plan. Install cable for some existing loops.

Verify cable needs with the City of Madison Traffic Engineering staff before completing intersection wiring.

D Measurement

The department will measure Loop Detector Lead In Cable Special by the linear foot, acceptably completed, measured from the splice with the loop lead in wire along the centerline of the conduit to its connection with terminals in the control cabinet.

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	Loop Detector Lead In Cable Special	LF

Payment is full compensation for furnishing and installing all materials.

80. Wastewater Control, Item SPV.0105.01.

A Description

Work under this item includes controlling or diverting, to the City of Madison's satisfaction, sanitary sewer flows during reconstruction of the sanitary sewer.

B (Vacant)

C Construction

Provide a pump with a capacity of 200 gallons per minute for bid item Wastewater Control 200 gallons per minute and all associated equipment required to maintain a functioning sanitary sewer system during construction. It is not acceptable, at any time, to disrupt normal flow of wastewater in sanitary sewer service laterals without prior approval from the city of Madison. This condition also holds at the time of connection of an existing lateral to the new sewer main.

If the contractor elects to use bypass pumping as a means of wastewater control, the methods, equipment, type of hose, etc. are subject to approval by the City of Madison engineer. Ramp any hoses crossing streets, driveways, parking areas, etc., to prevent damage to hoses. Contain spillage of wastewater to be within the utility trench and dispose of spillage into existing sewer downstream to previously installed sewer piping. Spillage of wastewater to adjacent streets, lawns, etc. not will be tolerated. Should spillage occur, cease all construction operations immediately and begin cleanup operations. Clean site thoroughly to the satisfaction of the engineer prior to the resumption of any construction operations.

D Measurement

The department will measure Wastewater Control as a single complete lump sum unit of work, completed in accordance 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. 0105.01	Wastewater Control	LS

Payment is full compensation for furnishing all labor, tools, equipment and other incidentals to complete the contract work.

81. Construction Staking Sanitary Sewer, Item SPV.0105.02.**A Description**

Perform work in accordance to the applicable provisions of standard spec 650.

B (Vacant)**C Construction**

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Set and maintain a minimum of two construction stakes to establish location and grade of sanitary sewer structures in accordance to the plans and details for sanitary sewer structures. Set and maintain construction stakes to establish location and grade of sanitary sewer main. Provide stakes that establish the horizontal and grade elevation of sanitary main at intervals of 25 feet for a minimum of 100 feet from each structure and at intervals of 50 feet thereafter. Determine offsets in conjunction with contractor requirements. Verify the invert elevations of existing structures which are to remain and be connected into. Locate all stakes included in this bid item to within 0.02 feet horizontally and establish the grade elevation to within 0.01 feet vertically.

Place additional intermittent stakes as necessary to provide staking information at critical areas such as utility, driveway, roadway, and structure crossings.

D Measurement

The department will measure Construction Staking Sanitary Sewer as a single complete lump sum unit of work, completed in accordance 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.0105.02	Construction Staking for Sanitary Sewer	LS

Payment is full compensation for locating and setting all construction stakes; and for relocating and resetting damaged or missing construction stakes.

82. Construction Staking Water Main, Item SPV.0105.03.

A Description

Perform the work in accordance to the applicable provisions of standard specS 650.3.2 and 650.3.6.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Construction Staking Water Main by the lump sum unit of work, acceptably completed.

E Payment

Paid for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.03	Construction Staking Water Main	LS

Payment for Construction Staking Water Main bid item is full compensation for locating and setting all construction stakes; for relocating and resetting damaged or missing construction stakes.

83. Optical Signal Preempt, Item SPV.0105.04.

A Description

This special provision describes furnishing and installing optical signal preempt equipment Midvale-Mineral Point intersection. The acceptability of alternate equipment rests solely with the City of Madison Traffic Engineering Division.

B Materials

Provide the following material:

1. Two channel discriminator
2. Optical detectors, four total.
3. Card rack.
4. Detector cable as necessary.
5. Cables and auxiliary equipment as necessary for a complete operating system.

Provide all equipment from the same manufacturer and fully compatible. The discriminator shall detect and prioritize Tomar and Opticom brand emitters. The discriminator shall be capable of locking out non-coded emitters. The acceptability of equipment rests solely with the City of Madison Traffic Engineering Division.

C Construction

Install detectors on the top horizontal member of monotube arms, between the first and second traffic signal head, and as otherwise shown on the plan or directed by Madison Traffic Engineering.

The detectors will generally be on the far side of the intersection, and aimed at approaching traffic, as further directed by Madison Traffic Engineering staff. Install detector cable from the detector to the control cabinet at each intersection, using the shortest path.

All installation methods to be consistent with the manufacturer's instructions. Card rack and discriminator installation, as well as cabinet connections, will be made by City of Madison Traffic Engineering staff.

D Measurement

The department will measure Optical Signal Preempt as a single lump sum unit of work for optical signal preempt, 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.0105.04	Optical Signal Preempt	LS

Payment is full compensation furnishing and installing detectors and cable; for furnishing and delivering discriminators, card racks, cables and miscellaneous materials to the City Traffic Engineering Field Office, 1120 Sayle Street.

84. Temporary Traffic Signals (Midvale-Mineral Point), Item SPV.0105.05.

A Description

This special provision describes installing temporary traffic signals for intersections, using overhead electrical wiring to temporary traffic signal poles and temporary supports, in accordance to standard spec 661 and as amended herein.

The City of Madison traffic signal personnel will perform the traffic signal inspection.

B Materials

Furnish and use materials that are in accordance to standard spec 661.2 and as amended herein.

Furnish and install Optical signal preempt for the temporary signals. The northbound and southbound approach directions each need to be detected and brought back individually to the signal control cabinet.

B.1 Luminaires

Furnish and install luminaire arms and luminaries conforming to the pertinent requirements of standard specS 657 and 659. The luminaries shall be 250 watt, full cutoff, high-pressure sodium and shall be furnished with photo electric cells to turn the luminaire on and off.

B.2 Signal Poles and Signal Faces

Furnish new or used poles and traffic signal standards for use in temporary signals conforming to the pertinent requirements of standard specS 657 and 661. Furnish signal faces in accordance to standard spec 661.2.2.2.

B.3 Pedestrian Push Buttons

Furnish pedestrian push buttons conforming to standard spec 658.

B.4 Signal Cabinet

Furnish new or equivalent to new materials as specified in standard spec 661.2 and as follows:

B.5 Controller

Furnish a new or equivalent to new Econolite ASC3-2100 controller with Telemetry Module. The controller shall be compatible with the City of Madison closed loop system (CLS).

B.6 Conflict Monitor

Furnish a new or equivalent to new NEMA+ 12-Channel Signal Conflict Monitor, with LCD display, and an Ejector Tab card release on side of card.

Provide keys to the temporary signal control cabinet to the City of Madison in addition to other required keys in accordance to standard spec 661.2.1.

C Construction**C.1 General**

The City of Madison will load the timing programs into the controller.

Do not use new permanent signal conduit for temporary signal wiring. Provide horizontal and vertical clearance between sidewalks and guy wires.

Arrange for all required electrical service modifications with the utility. Pay all utility company installation costs for modifications required to maintain the Temporary Traffic Signal. The City of Madison will pay for energy costs.

Locate and avoid all underground and aboveground utilities and structures. Install temporary supports as required to avoid conflicts with proposed curb and gutter, sidewalk, and traffic signal poles. The engineer will approve the final location of wood poles prior to installation.

Use of self-supporting poles will likely be required due to limited right-of-way limitations and depending on contractor operations.

Maintain temporary signals throughout the construction of the project, until such time that the new signals are operational and have been accepted by, and turned over to the city.

C.2 Existing City Equipment

City forces will remove all existing signal equipment after temporary signals are in place. Contact Michael Christoph at (608) 266- 9031 to coordinate signal removals.

C.3 Signal Heads

Install signal heads for the same vehicle travel direction at a minimum of 11 feet from each other. Provide pedestrian signals for each crosswalk open to pedestrians and locate them so that they are clearly visible to pedestrians prior to and during their crossing. Move signal heads as necessary or as directed by the engineer.

C.4 Pedestrian Push Buttons

Install pedestrian push buttons for pedestrian crossings. Mount push buttons so that they are wheelchair accessible from temporary crosswalks. Install pedestrian push buttons as required by the MUTCD chapter 4.

C.5 Luminaires

Orient luminaires as shown on the plans to illuminate both traffic lanes and sidewalks on both sides of the respective street.

C.6 Cabinet

Provide a representative of the supplier of their cabinet on site at the time of the turn on. Install equipment in the cabinet as follows:

C.6.1 Controller

Install the controller and ensure that it is operational as part of the City of Madison closed loop system.

C.7 Maintenance

When a signal installation is not in operation, hood, turn, or take down the signal head(s) to clearly indicate that the signal is not in operation. (See MUTCD 4D-1).

C.8 Pre-emption Hardware, Cable, and Equipment

Install detector cards, sensors, cables, and all required ancillary equipment, appurtenances and mounting hardware at the temporary signals to provide a fully functioning pre-emption system. Arrange testing of the pre-emption system with Mike Christoph, (608) 266-9031, before turn-on of the temporary signal.

C.9 Contractor Qualifications

Demonstrate the ability to operate all required traffic signal equipment listed in this special provision for the engineer and the City of Madison prior to starting work.

Provide proof of the ability to obtain all required traffic signal equipment listed in this special provision to the engineer and the City of Madison prior to starting work.

D Measurement

The department will measure Temporary Traffic Signals (Location), completed in accordance to the contract and accepted, as a single complete lump sum unit of work, and in accordance to standard spec 661.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.05	Temporary Traffic Signals (Midvale-Mineral Point)	LS

Payment is full compensation in accordance to standard spec 661.5.

85. Temporary Vehicle Detection (Midvale-Mineral Point), Item SPV.0105.06.

A Description

This special provision describes furnishing, installing and maintaining vehicle detection systems at the intersection of Midvale-Mineral Point in conjunction with temporary traffic signals as shown in the plans. The desired vehicle detection zones and their operational parameters are show in the plans.

B Materials

Provide all necessary equipment for the approved method of temporary vehicle detection.

Select, with prior approval of the engineer and City of Madison, the vehicle detection technology best suited for the site conditions and the anticipated construction work zones and activities. The engineer reserves the right to request a demonstration of any or all temporary vehicle detection technologies prior to said approval. Vehicle detection technologies considered shall include; but are not limited to, temporary inductive loops, microwave detection, or video detection. Detection technology shall provide for true presence detection.

C Construction

Damage to new pavement for temporary detection loops will not be allowed. Any pavement damaged during installation shall be replaced at the contractor's expense. Provide immediate response, 24-hour/7-days per week, to maintain any aspect of the temporary vehicle detection that is defective, completing repairs or adjustments the same day as notification. Adjust, relocate, add, or remove temporary vehicle detection

equipment for each traffic control stage or sub stage as shown in the plans, request by the engineer, or as modified by the contractor's operations to maintain the required traffic and complete the proposed work.

D Measurement

The department will measure Temporary Vehicle Detection (Intersection), demonstrated, furnished, installed and completely operational, as a single lump sum unit of work per 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.0105.06	Temporary Vehicle Detection (Midvale-Mineral Pt)	LS

Payment is full compensation for demonstrating and selecting the vehicle detector technology, furnishing, installing and adjusting or moving the equipment, including all required materials, tools and supplies; for furnishing all labor; for clean-up and waste disposal; and for furnishing all incidentals necessary to complete the contract work.

If repairs or adjustments to restore vehicle detection to full function are not made the same day as notification, the associated pay item shall be reduced by the following amounts:

- First instance: No deduct if repaired within 24 hours.
- Each subsequent instance: 5% deduct for each day or partial day of non-compliance.

86. Construct Inside Drop, Item SPV.0200.01.

A Description

This special provision describes constructing inside drop structures on sanitary sewer access structures where shown in the drawings, or as directed by the City of Madison.

Inside Drops are required if the elevation difference between the flow line of the incoming pipe and the springline of the outgoing pipe is greater than two feet.

B Materials

Provide all materials associated with this item in accordance to Standard Detail Drawing 5.7.30 and Article 507.3(d)1 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition. The vertical piping shall match the pipe diameter of the pipe of the pipe connecting to the manhole.

C Construction

Construct Inside Drop in accordance to Article 507.3(d)1 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition.

Maintain the normal flow of wastewater at all times during installation of the sanitary sewer access structure, construction of the inside drop structure, and when connecting new and existing pipes to the structure. Complete any necessary temporary wastewater control in accordance to the City of Madison Standard Specifications for Public Works Construction - Latest Edition, and as described under Wastewater Control Bid Item.

D Measurement

The department will measure Construct Inside Drop by the vertical foot, acceptably completed, measured from the invert of the of the entree Tee to the springline of the outgoing pipe in accordance to the Inside Drop detail included include with the plans.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0200.01	Construction Inside Drop	VF

Payment is full compensation for excavating, backfilling and disposing of surplus materials; and for making connections.

**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 1 (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 1 (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 underrepresentation 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 PROGRAM

1. Description

General

- a. The disadvantaged business enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. The department's DBE goal is shown on the cover of the bidding proposal. The contractor can meet the specified contract DBE goal by procuring services or materials from a DBE or by subcontracting work to 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.
- b. 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.
- c. The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- d. For information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at:

<http://www.dot.wisconsin.gov/business/engrserv/dbe-main.htm>

2. Definitions

- a. Interpret these terms, used throughout this additional special provision, as follows:
 - i. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.
 - ii. **DBE:** A disadvantaged business enterprise (DBE) certified as a DBE by the department and included on the department's list of certified DBE's who are determined to be ready, willing and able.
 - iii. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.
 - iv. **Discretionary Goal:** A contractor assigned DBE goal, typically abbreviated as "Disc" on the cover of the Highway Work Proposal, which is enforced as committed.
 - v. **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.
 - vi. **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.
 - vii. **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, including projects with discretionary goals. 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. 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. Department's DBE Evaluation Process

a. Documentation Submittal

Within 10 business days after the notification of contract award, 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] and all necessary attachment A forms, as well as, Good Faith Waiver Form [DT1202] and supporting documentation as necessary. If the contractor fails to furnish the required forms 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.

i. 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 achieved. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

ii. Bidder Does Not Meet DBE Goal

- (1) 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 Waiver 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 waiver request.
- (2) The department will review the bidder's good faith waiver request and notify the bidder of one of the following:
 - a. If the department grants a good faith waiver, the bid is eligible for contract execution with respect to DBE commitment.
 - b. If the department rejects the good faith waiver request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith waiver request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

5. Department's Criteria for Good Faith Effort

The Code of Federal Regulations {CFR}, 49 CFR Part 26-Appendix A, is the guiding regulation concerning good faith efforts. However, the federal regulations do not 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 process when making a determination of good faith.

- a. The department will only grant a good faith waiver 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 waiver 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.

- b. 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.
- c. Prime Contractors should:
 - i. 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.
 - ii. 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.
 - (1) Solicit quotes through all reasonable and available means from certified DBE firms who match 'possible items to subcontract' and send copies to DBESS office, highlighting areas in which you are seeking quotes. Email is acceptable.
 - (2) 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 {ideally two Fridays before the letting} to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking them if they need help in putting together a quote, or helping to arrange for equipment needs, or solve other problems.
 - (3) Second solicitation should take place within 5 days
 - a. An email solicitation is highly recommended for this second solicitation
 - (4) 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.
 - (5) When potential exists, advise interested DBE firms on how to obtain bonding, line of credit or insurance as may be requested.
 - (6) 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. Copy of the DBE quotes
 - e. Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.
- d. Evaluate DBE quotes as documentation is critical if the prime does not utilize the DBE firm's quote for any reason.
 - i. 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 directly regarding their ability to perform the work indicated in the UCP directory as their work area [NAICS code]; only the work area and/or NAICS code listed in the UCP directory will be counted for DBE credit. Documentation of the conversation is required.
- ii. In striving to meet a DBE conscious 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.
 - iii. **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.
 - (1) Compare bid items common to both quotes, noting the reasonableness in the price comparison.
 - (2) 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.
- e. After notification of contract award, submit '**Commitment to Subcontract**' form within the time period specified in the contract.
 - i. Provide the following information along with department form DT1202:
 - (1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact. A printed copy of SBN solicitation is acceptable.
 - (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.
 - (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.
 - f. The department's DBE Support Services Office is available by phone, email or in writing to request assistance in meeting the DBE goal:

DBE Support Services Office
6150 Fond du Lac Ave.
Milwaukee, WI 53218
Phone: 414-438-4583 / 608-266-6961
Fax: 414-438-5392
E-mail: DOTDBESupportServices@dot.wi.gov

6. Bidder's Appeal Process

- a. A bidder can appeal the department's decision to deny the bidder's good faith waiver request. 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 notice of rejection of a good faith waiver request under constitutes a forfeiture of the bidder's right of appeal. If the bidder does not appeal, the department may declare the bid ineligible for execution.

- 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 7 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.

7. Department's Criteria for DBE Participation

Department's DBE List

- a. The department maintains a DBE list on the department's website at <http://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx>
- b. The DBE office is also available to assist at 414-438-4583 or 608-266-6961.

8. 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 the DBE's ability to perform the work with the use of the UCP directory.

9. Commercially Useful Function

- a. The department counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.
- b. A DBE is performing a commercially useful function if the following conditions are met:
- c. 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.
- d. For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

10. Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at

<http://www.dot.wisconsin.gov/business/engrserv/docs/dbe-trucking-notice.pdf>

11. Manufacturers and Suppliers

The department counts material and supplies a DBE provides under the contract. The department will give full credit toward the DBE goal if the DBE is a manufacturer of those materials or supplies. The department will give 60 percent credit toward the DBE goal if the DBE is merely a supplier of those materials or supplies. 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.

12. DBE Prime

If the prime contractor is a DBE, the department will only count the work the contractor performs with its own forces, the work DBE subcontractors perform, and the work DBE suppliers or manufacturers perform.

13. 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.

14. Mentor Protégé

- a. If a DBE performs as a participant in a mentor protégé agreement, the department will credit the portion of the work performed by the DBE protégé firm
- b. On every other project that the mentor protégé team identifies itself on.
- c. For no more than one half of the total contracted DBE goal on any WisDOT project.

15. DBE Replacement

In the event a Prime Contractor needs to replace a DBE firm originally listed on the approved DBE Commitment Form DT1506, the Prime Contractor must comply with the department's DBE Replacement Policy located on the DBE page on the following web site:

<http://www.dot.wi.gov/business/dbe/docs/policyreplacingdbe.pdf>

16. Changes to the approved DBE Commitment Form DT1506

If there are any changes to the approved Commitment to Subcontract to DBE Form DT1506, the prime contractor must submit a revised DBE Commitment Form DT1506 and relevant attachment A(s) to the DBE Programs Office within 5 business days.

17. 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.

18. 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 alternative's 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 some one contact me at this number

Prime Contractor 's Contact Person

Phone: _____
Fax: _____
Email: _____

DBE Contractor Contact Person

Phone _____
Fax _____
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 alternative's are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B
BEST PRACTICES FOR PRIME CONTRACTOR & DBE
SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Ø Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance
- Ø Participate in speed networking and mosaic exercises as arranged by DBE office
- Ø Host information sessions not directly associated with a bid letting;
- Ø Participate in a formal mentor protégé or joint venture with a DBE firm
- Ø Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings
- Ø Facilitate a small group DBE ‘training session’ Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods
- Ø Encourage subcontractors to solicit and highlight DBE participation in their quotes to you
- Ø Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- Ø DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Ø Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Ø Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list, and bid tabs at a minimum.
- Ø Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Ø Participate in DBE office assessment programs
- Ø Participate on advisory and mega-project committees
- Ø Sign up to receive the DBE Contracting Update
- Ø Consider membership in relevant industry or contractor organizations
- Ø Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C

Types of Efforts considered in determining GFE

This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities;
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively;
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal;
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

- I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.
- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
 - B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- D.
 - (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.
- F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
- G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E

Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
 - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.
2. Create sub-quotes for the subcontracting community:
 - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
 - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
 - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request
 - d. Add attachments to sub-quotes
3. View sub-quote requests & responses:
 - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
 - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing
4. View Record of Subcontractor Outreach Effort:
 - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
 - b. Easily locate pre-qualified and certified small and disadvantaged businesses
 - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively
 - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency)

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
 - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
 - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
 - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes
 - c. Add attachments to a sub-quote
3. Create and send unsolicited sub-quotes to specific contractors:
 - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
 - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on an 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:

450.3.2.1 General

Replace the entire text with the following effective with the January 2015 letting:

- (1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 36 F for upper layers or 32 F for lower layers unless the engineer allows in writing. The contractor should place HMA pavement for projects on or north of STH 29 between May 1 and October 15 inclusive and for projects south of STH 29 between April 15 and November 1 inclusive. Notify the engineer at least one business day before paving.
 - (2) Unless the contract specifies otherwise, conform to the following:
 - Keep the road open to all traffic during construction.
 - Prepare the existing foundation for treatment as specified in 211.
 - Incorporate loose roadbed aggregate as a part of preparing the foundation, in shoulder construction, or dispose of as the engineer approves.
 - (3) Place asphaltic mixture only on a prepared, firm, and compacted base, foundation layer, or existing pavement substantially surface-dry and free of loose and foreign material. Do not place over frozen subgrade or base, or where the roadbed is unstable.
-

450.5 Payment

Replace the entire text with the following effective with the May 2015 letting:

- (1) All costs of furnishing, maintaining, and operating the truck scale or other weighing equipment and furnishing the weigh tickets are incidental to the contract.
 - (2) Nonconforming material allowed to remain in place is subject to price adjustment under 105.3.2.
 - (3) Full-depth sawing to remove integrally placed safety edge where not required is incidental to the contract.
 - (4) The contractor is responsible for the quality of HMA pavement placed in cold weather. If because of an excusable compensable delay under 108.10.3, the engineer directs the contractor to pave when the temperature is less than 36 F for the upper layer or less than 32 F for lower layers, the department:
 - Will relieve the contractor of responsibility for damage and defects the engineer attributes to cold weather paving.
 - Will not assess disincentives for density or ride.
-

455.3.2.1 General

Replace the paragraphs one and two with the following effective with the January 2015 letting:

- (1) Apply tack coat only when the air temperature is 32 F or more unless the engineer approves otherwise in writing. Before applying tack coat ensure that the surface is dry and reasonably free of loose dirt, dust, or other foreign matter. Do not apply if weather or surface conditions are unfavorable or before impending rains.
- (2) Use tack material of the type and grade the contract specifies. The contractor may, with the engineer's approval, dilute tack material as allowed under 455.2.4. Provide calculations using the asphalt content as-received from the supplier and subsequent contractor dilutions to show that as-placed material has 50 percent or more residual asphalt content. Apply at 0.050 to 0.070 gallons per square yard, after dilution, unless the contract designates otherwise. The engineer may adjust the application rate based on surface conditions. Limit application each day to the area the contractor expects to pave during that day.

460.2.2.3 Aggregate Gradation Master Range

Replace paragraph one with the following effective with the December 2014 letting:

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

SIEVE	PERCENTS PASSING DESIGNATED SIEVES						
	NOMINAL SIZE						
	37.5 mm	25.0 mm	19.0 mm	12.5 mm	9.5 mm	SMA 12.5 mm	SMA 9.5 mm
50.0-mm	100						
37.5-mm	90 – 100	100					
25.0-mm	90 max	90 - 100	100				
19.0-mm	—	90 max	90 - 100	100		100	
12.5-mm	—	—	90 max	90 - 100	100	90 - 97	100
9.5-mm	—	—	—	90 max	90 - 100	58 - 72	90 - 100
4.75-mm	—	—	—	—	90 max	25 - 35	35 - 45
2.36-mm	15 – 41	19 - 45	23 - 49	28 - 58	20 - 65	15 - 25	18 - 28
75-µm	0 – 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	8.0 - 12.0	10.0 - 14.0
% MINIMUM VMA	11.0	12.0	13.0	14.0 ^[1]	15.0 ^[2]	16.0	17.0

^[1] 14.5 for E-0.3 and E-3 mixes.

^[2] 15.5 for E-0.3 and E-3 mixes.

460.3.4 Cold Weather Paving

Add a new subsection as follows effective with the May 2015 letting:

460.3.4 Cold Weather Paving**460.3.4.1 Cold Weather Paving Plan**

- (1) Submit a written cold weather paving plan to the engineer at the preconstruction meeting. In that plan outline material, operational, and equipment changes for paving when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F. Include the following:
- Use a department-accepted HMA mix design that incorporates a warm mix additive from the department's approved products list. Do not use a foaming process that introduces water into the mix.
 - Use additional rollers.

- (2) Engineer written acceptance is required for the cold weather paving plan. Engineer acceptance of the plan does not relieve the contractor of responsibility for pavement performance except as specified in 450.5(4).

460.3.4.2 Cold Weather Paving Operations

- (1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F unless a valid engineer-accepted cold weather paving plan is in effect.
- (2) If the national weather service forecast for the construction area predicts ambient air temperature less than 40 F at the projected time of paving within the next 24 hours, confirm or submit revisions to a previously engineer-accepted cold weather paving plan for engineer validation. Upon validation of the plan, the engineer will allow paving for the next day. Once in effect, pave conforming to the engineer-accepted cold weather paving plan for the balance of that work day or shift regardless of the temperature at the time of paving.

460.4 Measurement

Add paragraph two as follows effective with the January 2015 letting:

- (2) The department will measure HMA Cold Weather Paving by the ton of HMA mixture for pavement placed conforming to an engineer-accepted cold weather paving plan.

460.5.1 General

Revise paragraph one as follows effective with the January 2015 letting:

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
460.1100	HMA Pavement Type E-0.3	TON
460.1101	HMA Pavement Type E-1	TON
460.1103	HMA Pavement Type E-3	TON
460.1110	HMA Pavement Type E-10	TON
460.1130	HMA Pavement Type E-30	TON
460.1132	HMA Pavement Type E-30X	TON
460.1700	HMA Pavement Type SMA	TON
460.2000	Incentive Density HMA Pavement	DOL
460.4000	HMA Cold Weather Paving	TON

460.5.2.2 Disincentive for HMA Pavement Density

Revise paragraph two as follows effective with the January 2015 letting:

- (2) The department will not assess density disincentives for pavement placed in cold weather because of a department-caused delay as specified in 450.5(4).

460.5.2.4 Cold Weather Paving

Add a new subsection as follows effective with the May 2015 letting:

460.5.2.4 Cold Weather Paving

- (1) Payment for HMA Cold Weather Paving is full compensation for additional materials and equipment specified for cold weather paving under 460.3.4 including costs for preparing, administering, and following the contractor's cold weather paving plan. The department will not pay for HMA Cold Weather Paving for HMA placed on days when the department is assessing liquidated damages.
- (2) If HMA pavement is placed under 460.3.4 and the HMA Cold Weather Paving bid item is not in the contract, the department will pay for the additional costs specified in 460.5.2.4(1) as extra work. The department will pay separately for HMA pavement under the appropriate HMA Pavement bid items.

465.2 Materials

Replace paragraph two with the following effective with the December 2014 letting:

- (2) Under the other 465 bid items, the contractor need not submit a mix design. Furnish aggregates mixed with a type AC asphaltic material, except under the Asphaltic Curb bid item furnish PG58-28 asphaltic material. Use coarse and fine mineral aggregates uniformly coated and mixed with the asphaltic material in an engineer-approved mixing plant. The contractor may include reclaimed asphaltic pavement materials in the mixture.

506.3.2 Shop Drawings

Replace the entire text with the following effective with the May 2015 letting:

- (1) Ensure that shop drawings conform to the contract plans and provide additional details, dimensions, computations, and other information necessary for completely fabricating and erecting the work. Include project and structure numbers on each shop drawing sheet.
- (2) Check shop drawings and submit electronically to the department for review before beginning fabrication. For primary fabrication items, also certify that shop drawings conform to quality control standards by submitting department form DT2333. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.
- (3) Shop drawings are part of the contract. The department must approve differences between shop drawings and contract plans. The contractor bears the costs of department-approved substitutions. Do not deviate from or revise drawings without notifying the department and resubmitting revised drawings.
- (4) Ensure that the fabricator delivers 3 sets of shop drawings for railroad structures to the railroad company upon contract completion.

Bid Items Added

Add the following new bid item effective with the January 2015 letting:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
460.4000	HMA Cold Weather Paving	TON

Errata

Make the following corrections to the standard specifications:

501.3.2.4.4 Water Reducer

Correct errata by deleting the reference to footnote 6 for grade D concrete.

- (1) Add a water reducing admixture conforming to 501.2.3. Determine the specific type and rate of use based on the atmospheric conditions, the desired properties of the finished concrete and the manufacturer's recommended rate of use. The actual rate of use shall at least equal the manufacturer's recommended rate, and both the type and rate used require the engineer's approval before use.
-

506.5 Payment

Correct errata by changing the reference to 506.3.22.

- (9) The department will limit costs for inspections conducted under 506.3.22 to \$0.05 per pound of material and deduct costs in excess of that amount from payment due the contractor. The department will determine costs for in-house inspections based on hourly rates for department staff plus overhead and use invoiced costs for contracted-out inspections. The department will administer deductions for the contractor's share of the total inspection cost under the Excess Costs For Fabrication Shop Inspection administrative item.

ADDITIONAL SPECIAL PROVISION 7

- A. Reporting 1st Tier and DBE Payments During Construction
1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
 2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
 3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
 4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
 5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
 6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<http://www.dot.wi.gov/business/civilrights/laborwages/index.htm>

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

<http://www.dot.wi.gov/business/civilrights/laborwages/docs/crc-payroll-manual.pdf>

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the 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 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.

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:

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director
Office of Federal Contract Compliance Programs
Ruess Federal Plaza
310 W. Wisconsin Ave., Suite 1115
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

DECEMBER 2013

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://roadwaystandards.dot.wi.gov/standards/cmm/cm-02-28.pdf#cm2-28.5>

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://roadwaystandards.dot.wi.gov/standards/forms/ws4567.doc>

Effective with September 2004 Letting

**WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES**

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

- I. Wage Rates, Hours of labor and payment of Wages
- II. Payroll Requirements
- III. Postings at the Site of the Work
- IV. Affidavits
- V. Wage Rate Redistribution
- VI. Additional Classifications

I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contracts.

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 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

- a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.
- b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)
- c. A copy of the contractor's Equal Employment Opportunity Policy.
- d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.
2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.
3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.
4. The unlisted classification must be commonly employed in the area where the project is located.
5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.
6. The request should be made prior to the actual performance of the work by the unlisted classification.
7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.
8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

**ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
DANE COUNTY**

Compiled by the State of Wisconsin - Department of Workforce Development
for the Department of Transportation
Pursuant to s. 103.50, Stats.
Issued on May 1, 2015

CLASSIFICATION: Contractors are required to call the Department of Workforce Development if there are any questions regarding the proper trade or classification to be used for any worker on a public works project.

OVERTIME: Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

FUTURE INCREASE: If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

PREMIUM PAY: If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

SUBJOURNEY: Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	32.09	18.04	50.13
Carpenter	32.72	16.00	48.72
Future Increase(s): Add \$1.42/hr on 6/1/2015; Add \$1.42/hr on 6/1/2016. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	35.18	16.78	51.96
Future Increase(s): Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	33.93	22.77	56.70
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	18.00	6.09	24.09
Ironworker	31.50	20.01	51.51
Line Constructor (Electrical)	39.50	17.73	57.23
Painter	26.65	13.10	39.75
Pavement Marking Operator	29.22	25.90	55.12
Piledriver	33.24	16.00	49.24
Future Increase(s): Add \$1.44/hr on 6/1/2015; Add \$1.44/hr on 6/1/2016. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Roofer or Waterproofer	29.40	11.31	40.71
Teledata Technician or Installer	22.25	12.24	34.49
Tuckpointer, Caulker or Cleaner	23.60	7.10	30.70

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	15.29	46.89
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	12.83	38.51
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.73	12.17	33.90

TRUCK DRIVERS

Single Axle or Two Axle	25.18	18.31	43.49
Future Increase(s): Add \$1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Three or More Axle	25.28	18.31	43.59
Future Increase(s): Add \$1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	30.27	21.15	51.42
Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .			
Pavement Marking Vehicle	23.16	21.13	44.29
Shadow or Pilot Vehicle	24.37	17.77	42.14
Truck Mechanic	24.52	17.77	42.29

LABORERS

General Laborer	30.41	15.14	45.55
Future Increase(s): Add \$1.05/hr eff. 06/01/2015; Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	18.00	9.58	27.58
Landscaper	30.41	15.14	45.55
Future Increase(s): Add \$1.05/hr eff. 06/01/2015; Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	26.76	15.14	41.90

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Future Increase(s): Add \$1.05/hr eff. 06/01/2015; Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.33	13.65	31.98
Railroad Track Laborer	14.50	5.29	19.79

HEAVY EQUIPMENT OPERATORS

Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	37.72	21.15	58.87
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	37.22	21.15	58.37
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole	36.72	21.15	57.87

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.46	21.15	57.61
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://www.dot.wi.gov/business/civilrights/laborwages/pwc.htm .	36.17	21.15	57.32
Fiber Optic Cable Equipment.	28.89	17.95	46.84

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI150010

DATE: March 20, 2015

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits		Basic Hourly Rates	Fringe Benefits
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, Utility Man); Batch Truck Dumper; or Cement Handler; Bituminous Worker; (Dumper, Ironer, Smoother, Tamper); Concrete Handler	\$30.41	15.04	<u>Truck Drivers:</u>		
				1 & 2 Axles	25.18	18.31
				Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	25.38	18.31
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer	30.51	15.04			
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	30.56	15.04			
Group 4:	Line and Grade Specialist	30.76	15.04			
Group 5:	Blaster and Powderman	30.61	15.04			
Group 6:	Flagperson and Traffic Control Person.....	26.76	15.04			

CLASSES OF LABORER AND MECHANICS

Bricklayer	28.41	12.81
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	31.50	20.03
Cement Mason/Concrete Finisher	32.09	16.13
Electrician		See Page 3
Line Construction		
Lineman.....	40.81	32% + 5.00
Heavy Equipment Operator	38.77	32% + 5.00
Equipment Operator.....	32.65	32% + 5.00
Heavy Groundman Driver.....	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman.....	22.45	32% + 5.00
Painter, Brush	24.50	16.27
Painter, Spray, Structural Steel,Bridges.....	25.50	16.27
Well Drilling:		
Well Driller.....	16.52	3.70

Notes: Welders receive rate prescribed for craft performing operation to which welding is incidental. 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 (29 CFR, 5.5(a)(1)(ii)). Includes Modification #0 dated January 2, 2015; Modification #1 dated January 16, 2015; Modification #2 dated March 20, 2015.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI150010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: March 20, 2015

<u>POWER EQUIPMENT OPERATORS CLASSIFICATION:</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>	<u>POWER EQUIPMENT OPERATORS CLASSIFICATION: (Continued)</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>
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	\$37.72	\$20.93	(scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); end loader 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 and A-frames; post driver; material hoist operator.	\$36.72	\$20.93
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 jib lengths measuring 175 feet or less, and backhoes (excavators) having a manufacturer's rated capacity of 3 cu. yds. and over, caisson rigs, pile driver, dredge operator, dredge engineer.	\$37.22	\$20.93	Group 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self-propelled; tractor (mounted or towed compactors and light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint saw (multiple blade) belting machine; burlap machine; texturing machine; tractor, end loader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$36.46	\$20.93
Group 3: Mechanic or welder - heavy duty equipment, cranes with a lifting capacity of 25 tons or less, concrete breaker (manual or remote); vibrator/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pavement spreader - heavy duty (rubber tired); concrete spreader and distributor, automatic subgrader (concrete); concrete grinder and planing machine; concrete slipform curb and gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi and over); bridge paver; concrete conveyor system; concrete pump; stabilizing mixer (self propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter and grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer and scarifier; backhoes (excavators) having a manufacturers rated capacity of under 3 cu. yds.; grader or motor patrol; tractor			Group 5: Air compressor; power pack; vibratory 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 helper.	\$36.17	\$20.93
			Group 6: Off - road material hauler with or without ejector	\$30.27	\$20.93
			Premium Pay: EPA Level "A" protection - \$3.00 per hour EPA Level "B" protection - \$2.00 per hour EPA Level "C" protection - \$1.00 per hours		

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI150010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: March 20, 2015

LABORERS CLASSIFICATION:

Rates

Benefits

			Area 4 -	BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausauke and area south thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (except area North of Townships of Aniwa and Hutchins) COUNTIES.
Electricians				
Area 1	\$29.00	26.5%+ 9.15		
Area 2:				
Electricians.....	30.59	18.43	Area 5 -	ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausauke), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Area North of the townships of Aniwa and Hutchins), VILAS AND WOOD COUNTIES
Area 3:				
Electrical contracts under \$130,000	26.24	16.85		
Electrical contracts over \$130,000	29.41	16.97		
Area 4:	29.32	28.50% + 9.27		
Area 5	28.96	24.85% + 9.70		
Area 6	35.25	19.30	Area 6 -	KENOSHA COUNTY
Area 8				
Electricians.....	31.30	24.93% + 10.40	Area 8 -	DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES
Area 9:				
Electricians.....	34.82	19.575		
Area 10	29.64	20.54	Area 9 -	COLUMBIA, DANE, DODGE, (area west of Hwy. 26, except Chester & 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
Area 11	32.54	24.07		
Area 12	32.87	19.23	Area 10 -	CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig, and SHEBOYGAN COUNTIES
Area 13	33.93	22.67		
Teledata System Installer				
Area 14			Area 11 -	DOUGLAS COUNTY
Installer/Technician	22.50	12.72		
Sound & Communications			Area 12 -	RACINE (except Burlington township) COUNTY
Area 15				
Installer	16.47	14.84	Area 13 -	MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES
Technician	25.63	17.21	Area 14 -	Statewide.
Area 1 -			Area 15 -	DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES.
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 & Springfield), OUTAGAMIE, WAUPACA, WAUSHARA and WINNEBAGO COUNTIES.				
Area 2 -				
ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Mayville, Colby, Unity, Sherman, Fremont, Lynn and Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST. CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON and WASHBURN COUNTIES				
Area 3 -				
FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)				

FEBRUARY 1999

**NOTICE TO BIDDERS
WAGE RATE DECISION**

The wage rate decision of the Secretary of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Secretary 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. The higher of state or federal rate will apply.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150512013PROJECT(S):
5992-06-64
5992-06-74FEDERAL ID(S):
WISC 2015283
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 Contract Items

0010	201.0120 Clearing	28.000				
	ID		.		.	
0020	201.0220 Grubbing	28.000				
	ID		.		.	
0030	204.0115 Removing Asphaltic Surface Butt Joints	6.000				
	SY		.		.	
0040	204.0150 Removing Curb & Gutter	3,000.000				
	LF		.		.	
0050	204.0155 Removing Concrete Sidewalk	855.000				
	SY		.		.	
0060	204.0195 Removing Concrete Bases	11.000				
	EACH		.		.	
0070	204.0210 Removing Manholes	2.000				
	EACH		.		.	
0080	204.0220 Removing Inlets	9.000				
	EACH		.		.	
0090	204.0245 Removing Storm Sewer (size) 01. 12-Inch Or Less	295.000				
	LF		.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20150512013PROJECT(S):
5992-06-64
5992-06-74FEDERAL ID(S):
WISC 2015283
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	204.0245 Removing Storm Sewer (size) 02. 15-Inch To 30-Inch	187.000 LF	.		.	
0110	205.0100 Excavation Common	7,005.000 CY	.		.	
0120	211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 5992-06-64	LUMP	LUMP		.	
0130	213.0100 Finishing Roadway (project) 01. 5992-06-64	1.000 EACH	.		.	
0140	305.0110 Base Aggregate Dense 3/4-Inch	98.000 TON	.		.	
0150	305.0120 Base Aggregate Dense 1 1/4-Inch	4,125.000 TON	.		.	
0160	305.0130 Base Aggregate Dense 3-Inch	4,038.000 TON	.		.	
0170	416.0170 Concrete Driveway 7-Inch	164.000 SY	.		.	
0180	455.0120 Asphaltic Material PG64-28	170.000 TON	.		.	
0190	455.0605 Tack Coat	374.000 GAL	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	460.1103 HMA Pavement Type E-3	2,715.000 TON	.		.	
0210	460.2000 Incentive Density HMA Pavement	1,740.000 DOL	1.00000		1740.00	
0220	460.4110.S Reheating HMA Pavement Longitudinal Joints	1,234.000 LF	.		.	
0230	465.0120 Asphaltic Surface Driveways and Field Entrances	1.000 TON	.		.	
0240	465.0125 Asphaltic Surface Temporary	128.000 TON	.		.	
0250	602.0410 Concrete Sidewalk 5-Inch	5,475.000 SF	.		.	
0260	602.0420 Concrete Sidewalk 7-Inch	1,555.000 SF	.		.	
0270	602.0515 Curb Ramp Detectable Warning Field Natural Patina	112.000 SF	.		.	
0280	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	228.000 LF	.		.	
0290	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	115.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0300	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	125.000 LF	.		.	
0310	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	16.000 LF	.		.	
0320	611.0410 Reconstructing Catch Basins	1.000 EACH	.		.	
0330	611.2033 Manholes 3x3-FT	2.000 EACH	.		.	
0340	611.2044 Manholes 4x4-FT	2.000 EACH	.		.	
0350	611.3230 Inlets 2x3-FT	12.000 EACH	.		.	
0360	611.8105 Adjusting Catch Basin Covers	1.000 EACH	.		.	
0370	611.8110 Adjusting Manhole Covers	5.000 EACH	.		.	
0380	611.8115 Adjusting Inlet Covers	1.000 EACH	.		.	
0390	611.8120.S Cover Plates Temporary	2.000 EACH	.		.	
0400	619.1000 Mobilization	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0410	620.0300 Concrete Median Sloped Nose	295.000 SF	.		.	
0420	624.0100 Water	116.000 MGAL	.		.	
0430	625.0100 Topsoil	1,756.000 SY	.		.	
0440	628.1905 Mobilizations Erosion Control	1.000 EACH	.		.	
0450	628.1910 Mobilizations Emergency Erosion Control	2.000 EACH	.		.	
0460	628.2006 Erosion Mat Urban Class I Type A	1,756.000 SY	.		.	
0470	628.7015 Inlet Protection Type C	11.000 EACH	.		.	
0480	628.7020 Inlet Protection Type D	27.000 EACH	.		.	
0490	628.7560 Tracking Pads	6.000 EACH	.		.	
0500	629.0210 Fertilizer Type B	1.110 CWT	.		.	
0510	630.0140 Seeding Mixture No. 40	32.000 LB	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0520	637.2210 Signs Type II Reflective H	129.500 SF	.		.	
0530	642.5001 Field Office Type B	1.000 EACH	.		.	
0540	643.0100 Traffic Control (project) 01. 5992-06-64	1.000 EACH	.		.	
0550	643.0300 Traffic Control Drums	15,326.000 DAY	.		.	
0560	643.0420 Traffic Control Barricades Type III	1,063.000 DAY	.		.	
0570	643.0500 Traffic Control Flexible Tubular Marker Posts	128.000 EACH	.		.	
0580	643.0600 Traffic Control Flexible Tubular Marker Bases	128.000 EACH	.		.	
0590	643.0705 Traffic Control Warning Lights Type A	8,040.000 DAY	.		.	
0600	643.0715 Traffic Control Warning Lights Type C	7,286.000 DAY	.		.	
0610	643.0800 Traffic Control Arrow Boards	533.000 DAY	.		.	
0620	643.0900 Traffic Control Signs	2,166.000 DAY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0630	643.1050 Traffic Control Signs PCMS	154.000 DAY	.		.	
0640	646.0106 Pavement Marking Epoxy 4-Inch	732.000 LF	.		.	
0650	646.0116 Pavement Marking Epoxy 6-Inch	1,206.000 LF	.		.	
0660	646.0126 Pavement Marking Epoxy 8-Inch	723.000 LF	.		.	
0670	646.0600 Removing Pavement Markings	471.000 LF	.		.	
0680	647.0166 Pavement Marking Arrows Epoxy Type 2	2.000 EACH	.		.	
0690	647.0356 Pavement Marking Words Epoxy	2.000 EACH	.		.	
0700	647.0456 Pavement Marking Curb Epoxy	30.000 LF	.		.	
0710	647.0576 Pavement Marking Stop Line Epoxy 24-Inch	159.000 LF	.		.	
0720	647.0606 Pavement Marking Island Nose Epoxy	3.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0730	647.0716 Pavement Marking Diagonal Epoxy 8-Inch	40.000 LF	.		.	
0740	647.0766 Pavement Marking Crosswalk Epoxy 6-Inch	55.000 LF	.		.	
0750	647.0776 Pavement Marking Crosswalk Epoxy 12-Inch	552.000 LF	.		.	
0760	649.0100 Temporary Pavement Marking 4-Inch	4,198.000 LF	.		.	
0770	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	11,565.000 LF	.		.	
0780	649.1000 Temporary Pavement Marking Stop Line Removable Tape 12-Inch	159.000 LF	.		.	
0790	650.4000 Construction Staking Storm Sewer	23.000 EACH	.		.	
0800	650.4500 Construction Staking Subgrade	2,815.000 LF	.		.	
0810	650.5000 Construction Staking Base	2,815.000 LF	.		.	
0820	650.5500 Construction Staking Curb Gutter and Curb & Gutter	3,000.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0830	650.8500 Construction Staking Electrical Installations (project) 01. 5992-06-64	LUMP	LUMP			.
0840	650.9910 Construction Staking Supplemental Control (project) 01. 5992-06-64	LUMP	LUMP			.
0850	650.9920 Construction Staking Slope Stakes	2,455.000 LF		.		.
0860	652.0215 Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	217.000 LF		.		.
0870	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	696.000 LF		.		.
0880	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,323.000 LF		.		.
0890	652.0325 Conduit Rigid Nonmetallic Schedule 80 2-Inch	60.000 LF		.		.
0900	652.0335 Conduit Rigid Nonmetallic Schedule 80 3-Inch	1,228.000 LF		.		.
0910	652.0800 Conduit Loop Detector	962.500 LF		.		.
0920	653.0905 Removing Pull Boxes	9.000 EACH		.		.

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			DOLLARS	CTS	DOLLARS	CTS
0930	654.0110 Concrete Bases Type 10	4.000 EACH	.		.	
0940	654.0113 Concrete Bases Type 13	1.000 EACH	.		.	
0950	655.0210 Cable Traffic Signal 3-14 AWG	43.000 LF	.		.	
0960	655.0230 Cable Traffic Signal 5-14 AWG	685.000 LF	.		.	
0970	655.0240 Cable Traffic Signal 7-14 AWG	120.000 LF	.		.	
0980	655.0250 Cable Traffic Signal 9-14 AWG	1,003.000 LF	.		.	
0990	655.0260 Cable Traffic Signal 12-14 AWG	569.000 LF	.		.	
1000	655.0615 Electrical Wire Lighting 10 AWG	1,488.000 LF	.		.	
1010	655.0620 Electrical Wire Lighting 8 AWG	446.000 LF	.		.	
1020	655.0625 Electrical Wire Lighting 6 AWG	1,338.000 LF	.		.	
1030	655.0800 Loop Detector Wire	2,957.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1040	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. Midvale-Mineral Point	LUMP	LUMP			.
1050	657.0100 Pedestal Bases	4.000 EACH	.		.	
1060	657.0405 Traffic Signal Standards Aluminum 3. 5-FT	1.000 EACH	.		.	
1070	657.0420 Traffic Signal Standards Aluminum 13-FT	3.000 EACH	.		.	
1080	658.0500 Pedestrian Push Buttons	10.000 EACH	.		.	
1090	658.5069 Signal Mounting Hardware (location) 01. Midvale-Mineral Point	LUMP	LUMP			.
1100	690.0150 Sawing Asphalt	2,463.000 LF	.		.	
1110	690.0250 Sawing Concrete	20.000 LF	.		.	
1120	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	400.000 HRS	5.00000		2000.00	
1130	ASP.1T0G On-the-Job Training Graduate at \$5. 00/HR	280.000 HRS	5.00000		1400.00	

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			DOLLARS	CTS	DOLLARS	CTS
1140	SPV.0060 Special 01. Root Pruning Existing Terrace Trees	1.000 EACH	.		.	
1150	SPV.0060 Special 02. Precast Sign Post Base	21.000 EACH	.		.	
1160	SPV.0060 Special 03. Erecting City-Owned Signs Type II	14.000 EACH	.		.	
1170	SPV.0060 Special 04. Storm Sewer Tap	1.000 EACH	.		.	
1180	SPV.0060 Special 05. Sewer Electronic Markers	7.000 EACH	.		.	
1190	SPV.0060 Special 06. Manhole 3X3-Ft Special	1.000 EACH	.		.	
1200	SPV.0060 Special 07. Inlet 2X3-Ft Special	1.000 EACH	.		.	
1210	SPV.0060 Special 08. Manhole Cover Type J Special	11.000 EACH	.		.	
1220	SPV.0060 Special 09. Inlet Cover Type H Special	12.000 EACH	.		.	
1230	SPV.0060 Special 10. Inlet Cover Type H-S Special	4.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1240	SPV.0060 Special 11. Remove Sanitary Sewer Structure	3.000 EACH	.		.	
1250	SPV.0060 Special 12. Abandon Sanitary Sewer - Pipe Plug	1.000 EACH	.		.	
1260	SPV.0060 Special 13. Install Compression Coupling	1.000 EACH	.		.	
1270	SPV.0060 Special 14. Sanitary Lateral Reconnect	3.000 EACH	.		.	
1280	SPV.0060 Special 15. Sanitary Sewer Access Structure (5-Foot Diameter)	1.000 EACH	.		.	
1290	SPV.0060 Special 16. Sanitary Sewer Access Structure (4-Foot Diameter)	2.000 EACH	.		.	
1300	SPV.0060 Special 17. Adjust Sewer Access Structure Special	1.000 EACH	.		.	
1310	SPV.0060 Special 18. Sanitary Sewer Tap	6.000 EACH	.		.	
1320	SPV.0060 Special 19. Utility Line Opening (ULO)	4.000 EACH	.		.	
1330	SPV.0060 Special 20. Furnish and Install 6-Inch Valve	4.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1340	SPV.0060 Special 21. Furnish and Install 8-Inch Valve	1.000 EACH	.		.	
1350	SPV.0060 Special 22. Furnish and Install 10-Inch Valve	3.000 EACH	.		.	
1360	SPV.0060 Special 23. Furnish and Install 12-Inch Valve	4.000 EACH	.		.	
1370	SPV.0060 Special 24. Furnish and Install Hydrant	2.000 EACH	.		.	
1380	SPV.0060 Special 25. Disconnect/Reconnect 1-Inch Service Lateral	4.000 EACH	.		.	
1390	SPV.0060 Special 26. Cut-In or Connect-To Existing Water System	6.000 EACH	.		.	
1400	SPV.0060 Special 27. Furnish Excavation and Ditch for Live Tap	1.000 EACH	.		.	
1410	SPV.0060 Special 28. Cut Off Existing Water Main	2.000 EACH	.		.	
1420	SPV.0060 Special 29. Abandon Water Valve Box	8.000 EACH	.		.	
1430	SPV.0060 Special 30. Abandon Hydrant	2.000 EACH	.		.	
1440	SPV.0060 Special 31. Concrete Pipe Support	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1450	SPV.0060 Special 32. Remove Street Light	3.000 EACH	.		.	
1460	SPV.0060 Special 33. LED Luminaire Type 1	2.000 EACH	.		.	
1470	SPV.0060 Special 34. LED Luminaire Type 2	2.000 EACH	.		.	
1480	SPV.0060 Special 35. Pole 30-Foot, 11 Gauge	4.000 EACH	.		.	
1490	SPV.0060 Special 36. Electrical Pullbox Type 1	5.000 EACH	.		.	
1500	SPV.0060 Special 37. Electrical Pullbox Type 3	7.000 EACH	.		.	
1510	SPV.0060 Special 38. Electrical Pullbox Type 5	7.000 EACH	.		.	
1520	SPV.0060 Special 39. Electrical Pullbox Type 7	1.000 EACH	.		.	
1530	SPV.0060 Special 40. Electrical Utility Access Structure	3.000 EACH	.		.	
1540	SPV.0060 Special 41. Concrete Base Type G	4.000 EACH	.		.	
1550	SPV.0060 Special 42. Concrete Base Type LB-3	4.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1560	SPV.0060 Special 43. Concrete Base Type P	1.000 EACH	.		.	
1570	SPV.0060 Special 44. Concrete Base Offset	1.000 EACH	.		.	
1580	SPV.0060 Special 45. Transformer Base Steel, 16-Inch	3.000 EACH	.		.	
1590	SPV.0060 Special 46. Monotube Pole, Type 9	4.000 EACH	.		.	
1600	SPV.0060 Special 47. Monotube Pole, Type 12	1.000 EACH	.		.	
1610	SPV.0060 Special 48. Monotube Arm, 20-Foot	1.000 EACH	.		.	
1620	SPV.0060 Special 49. Monotube Arm, 30-Foot	1.000 EACH	.		.	
1630	SPV.0060 Special 50. Monotube Arm, 35-Foot	3.000 EACH	.		.	
1640	SPV.0060 Special 51. Traffic Signal Control Cabinet	1.000 EACH	.		.	
1650	SPV.0060 Special 52. Traffic Signal Controller	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1660	SPV.0060 Special 53. Malfunction Management Unit (MMU)	1.000 EACH	.		.	
1670	SPV.0060 Special 54. Traffic Signal Ethernet Switch	1.000 EACH	.		.	
1680	SPV.0060 Special 55. Traffic Signal Heads 12-Inch, 3-Section	12.000 EACH	.		.	
1690	SPV.0060 Special 56. Traffic Signal Heads 12-Inch, 4-Section	10.000 EACH	.		.	
1700	SPV.0060 Special 57. Traffic Signal Heads 12-Inch, Pedestrian	12.000 EACH	.		.	
1710	SPV.0060 Special 58. Traffic Signal Heads 12-Inch, Pedestrian Countdown	12.000 EACH	.		.	
1720	SPV.0060 Special 59. Backplates Signal Face 3-Section, 12-Inch	12.000 EACH	.		.	
1730	SPV.0060 Special 60. Backplates Signal Face 4-Section, 12-Inch	10.000 EACH	.		.	
1740	SPV.0060 Special 61. Driver Feedback Radar LED Speed Sign	1.000 EACH	.		.	
1750	SPV.0060 Special 62. Reduce Speed LED Sign, 72" X 12"	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1760	SPV.0090 Special 01. Concrete Curb and Gutter 24-Inch Type D Special	1,604.000 LF	.		.	
1770	SPV.0090 Special 02. Concrete Curb and Gutter 30-Inch Type D Special	1,125.000 LF	.		.	
1780	SPV.0090 Special 03. Concrete Curb and Gutter 24-Inch Type X Special	29.000 LF	.		.	
1790	SPV.0090 Special 04. Concrete Curb and Gutter 30-Inch Type X Special	40.000 LF	.		.	
1800	SPV.0090 Special 05. Concrete Curb and Gutter 24-Inch Type E Special	202.000 LF	.		.	
1810	SPV.0090 Special 06. Reflective Sign Post	198.500 LF	.		.	
1820	SPV.0090 Special 07. Utility Trench Patch Type III	110.000 LF	.		.	
1830	SPV.0090 Special 08. Select Fill for Sanitary Sewer	31.000 LF	.		.	
1840	SPV.0090 Special 09. Sanitary Sewer Pipe PVC, 6-Inch	7.000 LF	.		.	
1850	SPV.0090 Special 10. Sanitary Sewer Lateral	24.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1860	SPV.0090 Special 11. Furnish & Install 6-Inch Pipe & Fittings	62.000 LF	.		.	
1870	SPV.0090 Special 12. Furnish & Install 8-Inch Pipe & Fittings	24.000 LF	.		.	
1880	SPV.0090 Special 13. Furnish & Install 10-Inch Pipe & Fittings	28.000 LF	.		.	
1890	SPV.0090 Special 14. Furnish & Install 12-Inch Pipe & Fittings	843.000 LF	.		.	
1900	SPV.0090 Special 15. Extend and Reconnect 1-Inch Service Lateral	54.000 LF	.		.	
1910	SPV.0090 Special 16. Select Fill for Water Main	957.000 LF	.		.	
1920	SPV.0090 Special 17. Furnish and Install 2-Inch Foam Board Insulation	40.000 LF	.		.	
1930	SPV.0090 Special 18. Loop Detector Lead-In Cable Special	3,550.000 LF	.		.	
1940	SPV.0105 Special 01. Wastewater Control	LUMP	LUMP		.	
1950	SPV.0105 Special 02. Construction Staking Sanitary Sewer	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
1960	SPV.0105 Special 03. Construction Staking Water Main	LUMP	LUMP			.
1970	SPV.0105 Special 04. Optical Signal Preempt	LUMP	LUMP			.
1980	SPV.0105 Special 05. Temporary Traffic Signals (Midvale-Mineral Point)	LUMP	LUMP			.
1990	SPV.0105 Special 06. Temporary Vehicle Detection (Midvale-Mineral Point)	LUMP	LUMP			.
2000	SPV.0200 Special 01. Construct Inside Drop	VF	7.040	.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE