

HIGHWAY WORK PROPOSAL

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

Proposal Number:

Ø 5

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Dane	3070-00-72	WISC 2014 064	IH 39 - Columbus Pierce Road to Fadness Road	STH 73
Dane	3070-00-75	WISC 2014 061	IH 39 - Columbus Virtual Weigh Stations	STH 73

ADDENDUM REQUIRED ATTACHED AT BACK

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, \$ 320,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: March 11, 2014 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time November 1, 2014	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 8%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Bidder Signature)

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

(Print or Type Bidder Name)

(Date Commission Expires)

(Bidder Title)

Notary Seal

For Department Use Only

Type of Work Grading, base aggregate, select crushed material, HMA and concrete pavement, culvert pipe, storm sewer, concrete curb and gutter, permanent signing, pavement marking, ITS installation, box culvert replacement, and weigh in motion facilities.	
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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 Project 3070-00-72, STH 73, IH 39 - Columbus from Pierce Road to Fadness Road in the Towns of Albion and Christiana in 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, 2014 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 (20130615)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate, select crushed material, HMA and concrete pavement, culvert pipe, storm sewer, concrete curb and gutter, permanent signing, pavement marking, Structure C-13-2073, ITS installation, weigh in motion facilities, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

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

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

Prior to beginning operations under this contract, submit in writing the proposed schedule of operations to the engineer for approval. Meet weekly with the engineer to review progress on the project. At these meetings, present a current, updated project schedule and discuss all proposed activities in detail for the upcoming 2-week time period.

At the beginning of excavation operations, close STH 73 from the South Project Limits to STH 106 (Station 93+00) to through traffic for a maximum of 30 calendar days. Do not reopen until completing the following work: excavation, base course placement, storm sewer installation, cross pipe placement, curb and gutter installation, HMA pavement placement of at least the binder layer.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen STH 73 from the South Project Limits to STH 106 (Station 93+00) to traffic within 30 calendar days, the department will assess the contractor \$1,605 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

To minimize the corridor-wide effects of grading operations on adjacent property owners, the contractor shall coordinate their construction operations such that no more than 3 miles of the project site are undergoing roadway excavation or base course placement operations at any given time.

The contractor shall schedule work operations to limit the amount of subgrade exposed to the elements to no more than ½ mile at any one time.

Contact Henry Furseth of 1601 State Highway 73 (Parcel #65 on the 3070-00-21 Plat) before beginning removal of any trees on his property. Henry Furseth's property is located on the west side of STH 73 just north of CTH A. Some of these trees were planted as memorials and the property owner would like to keep the wood to make something as a family keepsake. Obtain instructions from Mr. Furseth about what he wants left, size of logs, where to store the material, etc.

Wells in the construction area shall be identified prior to the start of construction. All wells in the construction area must be properly abandoned before any grading work is started, and wells discovered during grading work must also be properly abandoned in accordance to NR 812.26. If the contractor fails to properly abandon a well, and the well is graded over, the remedy will include excavating the casing, drilling out the well, and properly abandoning the well.

Microwave detectors shall be fully operational with the ability to access data remotely at the following locations prior to October 1, 2014:

- STH 73 @ 0.5 miles north of STH 106 (SDS-13-0120).
- STH 73 @ 0.5 miles north of CTH PQ (SDS-13-0121).

Dynamic message signs shall be fully operational with the ability to receive data remotely at the following locations prior to October 1, 2014:

- STH 73 @ 0.5 miles north of STH 106 (DMS-13-0050).
- USH 12/18 (EB) @ Agriculture Drive (DMS-13-0051).

Migratory Birds

Swallow and other migratory birds' nests have not been observed on or under the existing box culvert, but conditions to support nesting exist. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

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

4. Traffic.

The portion of STH 73 from the South Project Limits to STH 106 (Station 93+00) shall remain open to local traffic prior to, during, and after the 30 calendar day construction period where this segment of roadway is to be closed to through traffic as identified in the Prosecution and Progress section of this document.

Close STH 73 to through traffic between STH 106 and USH 12/18. Detour northbound traffic to westbound/northbound IH-39/90, then eastbound USH 12/18, then back to northbound STH 73 and reverse for southbound traffic. The detour route length is approximately 29 miles.

The contractor is responsible for coordinating with the following school districts to ensure that bus routes are maintained and accessible throughout construction.

Edgerton School District

Riteway Transportation (608) 884-8114

Stoughton School District

Transportation Coordinator, Rob Riley (608) 877-5061

Cambridge and Deerfield School Districts

First Student Busing Company (608) 423-4118

The contractor is also responsible for coordinating with the following post offices to ensure that mail delivery is maintained for residents along the project:

Edgerton

104 Swift Street
Edgerton, WI 53534
(608) 884-6442

Cambridge

107 Park Street
Cambridge, WI 53523
(608) 423-7315

Deerfield

16 W Nelson Street
Deerfield, WI 53531
(608) 764-2602

Private and Commercial Access

Access to businesses, residences and farming operations shall be maintained throughout the project. If an access is to be temporarily closed, notify those affected at least two business days in advance of the closure.

Maintain a clearly delineated, suitable driving surface of at least a 10-foot driving lane for residents, businesses, school busses, and emergency vehicles throughout construction. A suitable driving surface is defined as a material capable of withstanding a fully loaded quad axle truck without yielding as approved by the engineer. The 10-foot lane shall be graded to drain and rolled with a smooth drum vibratory roller or other alternate compaction equipment that produces a smooth driving surface.

Provide the engineer and local law enforcement with a 24-hour, 7 days/week contact person responsible for the maintenance of the 10-foot driving lane for residents.

All intersections of STH 73 and side roads shall have a 20-foot driving lane consisting of Traffic Control Base Course to ensure 2-way cross traffic is maintained. The contractor may reduce the maintained width to 15-feet during daylight hours provided that flaggers are present.

Stage reconstruction of the box culvert replacement such that local traffic is able to continue using STH 73 during construction operations. Utilize temporary shoring as provided in the box culvert plans to accommodate staged construction. Remove existing box culvert C-13-2019 after construction of the new box culvert, C-13-2073, has completed.

Contact farmers and businesses operating along STH 73 to coordinate their specific needs for agricultural equipment usage and deliveries along the corridor with the contractor's work operations.

Employ such flaggers, signs, barricades, and drums as may be necessary to safeguard local traffic at all locations affected by construction operations. Make arrangements and be responsible for the prompt replacement of damaged or dislocated traffic control or guidance devices, day or night.

Do not store vehicles, equipment, or materials on adjacent streets beyond the project limits without specific approval from the engineer.

Notify the engineer if there are any changes in the schedule, early completions, or cancelations of scheduled work.

5. 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 8:00 PM until the following 6:00 AM, unless prior written approval is obtained from the engineer.

107-001 (20060512)

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 39 traffic, STH 106 traffic, or STH 73 traffic south of STH 106, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, May 23, 2014 to 6:00 AM Tuesday, May 27, 2014 for Memorial Day;
- From noon Thursday, July 3, 2014 to 6:00 AM Monday, July 7, 2014 for Independence Day;
- From noon Friday, August 29, 2014 to 6:00 AM Tuesday, September 2, 2014 for Labor Day;
- From noon Friday, November 21, 2014 to 6:00 AM Monday, November 24, 2014 for Opening weekend of deer hunting season;
- From Wednesday, November 26, 2014 to 6:00 AM Monday, December 1, 2014 for Thanksgiving.

107-005 (20050502)

7. Archaeologically Significant Site.

The Albion Prairie Cemetery uncatalogued burial site is located approximately between Stations 200 and 203 on the east side of STH 73 within the limits shown on the plans.

Provide notice to the Bureau of Technical Services – Environmental Policy and Documentation Section (BTS) at least two weeks before commencement of any ground disturbing activities along the east side of STH 73 between Stations 200 and 203. BTS will provide a qualified archaeologist to be on site at all times during construction of this area. A 15-foot buffer from the marked headstones shall be maintained as requested by the Wisconsin Historical Society.

BTS can be contacted through the following representatives:

Jim Becker: (608) 261-0137

Lynn Cloud: (608) 266-0099

If human bone is discovered during construction, work activities in the area shall immediately cease and the qualified archeologist will contact the Wisconsin Historical Society at (800) 342-7834 or (608) 264-6507 for compliance with Wisconsin Statute 157.70 regarding the protection of human burial sites.

The area within the limits of the Albion Prairie Cemetery shall not be used for borrow or waste disposal or for the staging of personnel, equipment, and/or supplies.

8. Historical Site Protection.

Supplement standard spec 107.25 with the following:

The department has identified the Old Christiana Town Hall at the northwest corner of STH 73 and Koshkonong Road and the Smithback School at 772 Koshkonong Road as NRHP eligible historic sites. The historic limits are shown in the plans. No impacts are allowed within the Historical Property boundaries.

Ensure that no fill or waste material is stored within the historic area that is outside the construction limits. In addition, do not park vehicles or store equipment within this area.

9. Environmental.

The box culvert at approximately Station 403+00 shall be set in such a manner that it does not cause fragmentation and allows fish and other aquatic organisms to migrate up- and downstream during low-flow conditions. This requires that the invert be at least one foot below the final stream bed. In addition, the structure shall be rocked on both the upstream and downstream margins, as well as the downstream face in the water. The desired end-result is that during high-flow conditions, the currents don't cause a large pool to develop downstream of the edge of the structure, which creates an impassable barrier to aquatic organisms during low flows in the fall.

It is intended that the box culvert work will be completed in a known drier time of the year, but if a temporary channel is needed for culvert construction, the channel shall be lined with plastic or other non-erodible material and weighted down with washed stone. It must be capable of carrying anticipated stream flows during the construction period. The coffer dams used to divert the flow through the temporary channel shall be nylon bags filled with stone. Fish that become stranded in dewatered channels shall be captured and returned to the active channel immediately.

Spoil material should be stockpiled on uplands an adequate distance from the stream and any open water created by excavation. Filter fabric silt fence should be installed between spoil material and the stream and between the entire disturbed area and the waterway.

If dewatering is required for any reason, the water must be pumped into a properly sized and constructed settling basin before the clean/filtered water is allowed to enter any waterway or wetland. The “clean/filtered” water must be free of suspended solids and contaminants. A properly designed and constructed settling basin will take into consideration the amount of space for construction, desired pumping speed, number/size of pumps likely to be used, and the sedimentation rate of soils to be encountered. See DNR Technical Standard 1061 for method selection by soil type.

If an asphalt plant is to be utilized, it must be able to meet the air quality standards of the State of Wisconsin. If a portable facility is to be installed, the contractor must first submit a “Notice of Intent” to relocate the portable source. The site that is utilized for the asphalt plant must be properly treated to prevent erosion. Appropriately sized stilling basins should be provided that will intercept runoff and allow ample time for the suspended materials to settle out before any water is discharged. If any gravel washing is to be completed on-site, coordinate erosion control plans for this site with the DNR before the project is started.

If the portable plant is located in an area that is currently undisturbed or not part of an existing quarry, an air management permit and a restoration plan for the site may be required. Coordinate attainment of this permit and approval of the restoration plans with the DNR.

Supplement standard spec 107.20 with the following:

Unless otherwise directed by the engineer at the end of each day, drive a tracked vehicle up and down all untracked or newly graded slopes to reduce the erosive potential of the slopes. The tracks shall be roughly perpendicular to the direction of stormwater runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

Supplement standard spec 107.20(7) with the following:

Provide the permanent erosion control measures immediately after performing grading operations unless temporary erosion control measures are specified or authorized by the engineer.

If burning of brush will occur as part of this project, the contractor is reminded that it is illegal to burn materials other than clean wood. In addition, a permit may be required to burn any material during the wildland fire season. The contact for questions about burning during an air quality advisory is:

Tom Roushar
Air Management Section
Wisconsin DNR South Central Region
Fitchburg, WI 53711
(608) 273-5603

Burning permits can be obtained from the local DNR ranger or fire warden.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Jennifer Grimes at (608) 246-3823.
107-054 (20080901)

11. Environmental Protection, Aquatic Exotic Species Control.

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

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

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact

with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf for disinfection:

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

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

12. Construction Over or Adjacent to Navigable Waters.

Supplement standard spec 107.19 with the following:

The Koshkonong Creek is classified as a navigable waterway.
107-060 (20040415)

13. Utilities.

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

There are underground and overhead utility facilities located within the project limits. The contractor shall coordinate construction activities with a call to Diggers Hotline or with a direct call to the utilities that have facilities in the area as required per statutes. The contractor shall use caution to ensure the integrity of underground facilities and maintain OSHA code clearances from overhead facilities at all times. Additional information regarding the location of relocated utility facilities is available in the work plans provided by each utility company or on the permits issued to them. These documents can be

viewed at the department's Southwest Region Madison Office during normal working hours.

Prospective bidders are cautioned that the arrangements set forth in the article represent the utility companies' best estimates of their plans to relocate and/or adjust conflicting facilities. Frequently, the utility companies encounter problems that prevent them from meeting their anticipated schedules. Bidders are advised to contact each utility company listed in the plans prior to preparing their bids to obtain current information of the status of any utility relocation work stated herein.

American Transmission Company

American Transmission has a 345kV transmission line that crosses STH 73 at approximately Station 454+00. No Conflict is anticipated. Note: OSHA Safe working distance to energized transmission lines applies. The contact for American Transmission Company is Mike Olsen, 801 O'Keefe Rd, De Pere, WI 54115, (608) 338-6582 office, (608) 660-2390 mobile, molsen@atcllc.com.

Alliant Energy (WPL) Electric

Alliant Energy will be relocating overhead and underground power transmission lines along the entire project. Work is expected to take 90 working days and will be completed prior to construction. The contact for Alliant Energy is Tim Wagner, 46 S Rolling Meadows Drive, Fond Du Lac, WI 54937, (920) 942-3690 office, (920) 360-8668 mobile, twagner@mi-tech.us; or Jason Hogan, 4902 Biltmore Lane Suite 1000, Madison, WI 53718-2148, (608) 458-4871 office, (608) 395-7395 mobile, JasonHogan@alliantenergy.com.

Alliant Energy (WPL) Gas

Alliant Energy Gas has a gas line at two locations on the project:

1. A 20 inch gas transmission line crosses STH 73 at Station 454+10. A portion of the existing pipe is to be cut out and replaced prior to construction. A new gas system rectifier (anode) bed will also be relocated out of right-of-way between Station 454+20 and Station 458+00 prior to construction. Work is expected to start November 1, 2013 and last 30 working days.

The existing main will need to be protected from heavy equipment after the existing road surface has been removed. Contact Alliant – Kevin Doyle at least two weeks prior to coordinate for adequate matting be placed over the top of pipe. Contact Kevin Doyle, (608) 458-4871 office, (608) 395-7395 mobile, KevinDoyle@alliantenergy.com.

2. A 4 inch gas line runs along the north side of Prairie Queen Road from Station 595+00PR to 598+00PR and will be lowered. The 2 inch line that taps into this line at Station 599+25PR and heads north to approximately Station 540+00 where it crosses STH 73 will be retired. A new 4 inch gas line will be installed starting at Station 521+00 to Station 540+00 where it will tie into the existing service for

Hinchley Family Farms. The proposed work will take place prior to construction and is expected to take 5 working days. Contact – Mark Schoen, 1521 Progress Lane, Stoughton, WI 53589, (608) 877-1648 office, (608) 206-4819 mobile, MarkSchoen@alliantenergy.com

Frontier Communications

Frontier Communications has communication facilities along the entire project. Existing facilities will be abandoned in place. New facilities (telephone and fiber optic) will be placed approximately 3 feet inside of the new right-of-way line. Work is anticipated to begin in October 2013 and take approximately 130 working days. Contact – Brian Van Ooyen, 451 Broadway Drive, Sun Prairie, WI 53590, (608) 837-1151 office, (608) 509-5051 mobile.

Windstream/PAETEC

Windstream/PAETEC has communication facilities within the project limits. Windstream will attach to Alliant Energy poles for the entire length of the project with underground crossings at these approximate locations: 94+00, 173+00, 236+00, 253+00, 282+00, 286+50, 326+00, 360+00, 382+50, 429+00, and 458+75. Underground crossings are expected to be placed 36-48 inches below the new grade. Work for Windstream will be coordinated with Alliant Energy. Work is expected to take 45 working days. Contact – Jim Kostuch, 13935 Bishops Drive, Brookfield, WI 53005, (608) 819-5009 office, (608) 305-0332 mobile, james.kostuch@windstream.com.

14. Erosion Control Structures.

Within seven calendar days after the commencement of work on the structure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. These devices shall be in place in the area adjacent to the structure and on both sides of the roadway, from the waterway to a point 100-feet behind the wing wall edges. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as directed by the engineer. Prior to initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.
107-070 (20030820)

15. Airport Operating Restrictions.

The department obtained a temporary permit from the Federal Aviation Administration (FAA) for the permanent installations that are included in the plans. The department will transfer the temporary permit to the contractor for additional coordination with the FAA. Submit Notice of Proposed Construction or Alteration (FAA Form 7460-1) to the FAA at

least 45 days before beginning construction for any equipment that will exceed 200 feet above ground level. Provide special marking and lighting of this equipment for the duration of the project as required.

If required, the FAA will include a FAA Form 7460-2, Notice of Actual Construction or Alteration, with a determination. Complete and send FAA Form 7460-2 Part 1 to the FAA at least 48 hours prior to starting the actual construction or alteration of a structure. Additionally, submit Part 2 no later than 5 days after the structure has reached its greatest height.

Contact Justin Hetland, Airspace Safety Program Manager, Bureau of Aeronautics at (608) 267-5018 or justin.hetland@dot.wi.gov with any questions. Refer to the following FAA website for instructions to complete the form and the required information: <http://www.faa.gov/forms/index.cfm/go/document.information/documentID/186273>.

16. Clearing and Grubbing, Items 201.0105, 201.0120, 201.0205, and 201.0220.

Supplement standard spec 201.3 with the following:

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

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

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

(Note: blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems.)

Mountain ash (*Sorbus Americana* and *S. decora*) is not a true ash and is not susceptible to EAB infestation.

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with flagging tied around the trunk perimeter (fluorescent lime is suggested as it isn't identified with other project activities).

Follow and obey the following DATCP order:

ATCP 21.17 Emerald ash borer, import controls and quarantine.

1. Importing or moving regulated items from infested areas; prohibition.

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

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

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

2. Regulated items.

The following are regulated items for purposes of sub. (2):

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

Regulatory Considerations

The quarantine means that ash wood products may not be transported out of the quarantined area.

Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for disposal:

Chipped ash trees

- 1) May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.
- 2) May be buried on site within the right-of-way in accordance to standard spec 201.3 (14).
- 3) May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer in accordance to standard spec 201.3 (15).
- 4) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval in accordance to standard spec 201.3 (15).

17. Removing Building Station 250+13, Item 204.0230.01; Station 442+60, Item 204.0230.02; Station 537+80, Item 204.0230.03.; Parcel 70 – Plat 3070-00-21, Item 204.0235.01.

Conform to the requirements of standard spec 204 and as hereinafter specified.

The department will investigate all buildings to be removed for the presence of asbestos. Any friable asbestos found will be removed by others prior to the start of construction. If any additional friable asbestos is found by the contractor during building removal, cease building removal and contact the engineer to arrange for friable asbestos removal by others.

Contact WisDOT SW Region Madison Environmental Coordinator Jenny Grimes at (608) 245-2630 or jennifer.grimes@dot.wi.gov to obtain a copy of the pre-demolition asbestos inspection reports.

Dispose of any and all materials within the buildings, including fuel oil tanks.

The following is a description of the building removals to be conducted under this contract:

Troha Property

**Parcel 49 on 3070-00-21 Plat, Station 250+13 LT
Item 204.0230.01**

Remove 96 SF wooden shed with concrete slab. Finished grade to include full restoration with application of topsoil, fertilizer, seed, and mulch to the areas disturbed by removal.

Stevens Property

Parcel 70 on 3070-00-21 Plat, Station 295+60 RT

Item 204.0235.01

Remove 2-story single family farm house with 1,288 total SF (644 SF 1st floor, 644 2nd floor). Remove 8' x 16' shed (128 SF) with electrical service, concrete slab floor, and unfinished interior walls. Remove 16' x 30' (480 SF) barn with electrical service and lower stone level. Remove 10' x 20' (200 SF) open sided pole shed / horse shed. Remove any other miscellaneous structures remaining on the site. Finished grade to include full restoration with application of topsoil, fertilizer, seed, and mulch to the areas disturbed by removal.

Buonincontro Property

Parcel 22 on 3070-00-22 Plat, Station 442+60 RT

Item 204.0230.02

Remove 1.5-story single family house with 1,250 total SF (280 SF upper floor, 690 SF main floor, 280 SF basement) with enclosed porch and 20' x 15' wooden deck. Note that outbuildings on the site, including a two car detached garage and 2 garden sheds, are NOT included in the removal. Finished grade to include full restoration with application of topsoil, fertilizer, seed, and mulch to the areas disturbed by removal.

Hinchley Property

Parcel 37 on 3070-00-22 Plat, Station 537+80 RT

Item 204.0230.03

Remove L-shaped pole shed, totaling 4,866 SF with one leg measuring 27' x 98' and the second leg measuring 37' by 60'. This building is a wood framed structure with painted heavy-gauge steel. The building also includes a concrete floor and block foundation. Finished grade to include full restoration with application of topsoil, fertilizer, seed, and mulch to the areas disturbed by removal.

18. Temporary Shoring, Item 206.6000.S.

A Description

This special provision describes designing and providing temporary shoring at locations the plans show.

B Materials

B.1 Shoring Design

Provide a shoring design for each location where the plan requires temporary shoring. Have a professional engineer, registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit

one copy of each shoring design, signed and sealed by the same professional engineer verifying the design, to the engineer for incorporation into the permanent project record.

C Construction

Provide temporary shoring at each required location conforming to the design developed for that location.

Remove the shoring when it is no longer needed unless the engineer allows it to remain in place. Backfill the space that is excavated but not occupied by the new permanent construction conforming to standard spec 206.3.13.

D Measurement

The department will measure Temporary Shoring by the square foot, acceptably completed at locations the plans show, measured as the area of exposed face in the plane of the shoring from the ground line in front of the shoring to a maximum of one foot above the retained grade. Shoring used for staged construction in multiple configurations without removal and reinstallation will be measured once based on the configuration with the largest area of exposed face.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
206.6000.S	Temporary Shoring	SF

Payment is full compensation for designing and providing shoring; for providing a signed and sealed copy of the design; and for backfilling and removing the shoring.

The department will not pay for temporary shoring, installed for contractor convenience, that is not required in the plans.

206-005 (20110615)

19. Backfill Coarse Aggregate Size No 2, Item 209.0300.S.01.

A Description

This special provision describes furnishing and placing coarse aggregate backfill as shown on the plans and as hereinafter provided.

B Materials

Provide clean concrete aggregate graded in accordance with the requirements as specified under standard spec 501.2.5.4.4. The soundness and wear requirements are deleted from this material.

C Construction

Construct the coarse aggregates in accordance with standard spec 209.3.

D Measurement

The department will measure Backfill Coarse Aggregate Size No 2 in volume by the cubic yard in the vehicle.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
209.0300.S.01	Backfill Coarse Aggregate Size No. 2	CY

Payment is full compensation for furnishing and installing the aggregate.

209-030 (20030820)

20. QMP Base Aggregate.

A Description

A.1 General

- (1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.
- (2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.
- (3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.
- (4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
 1. Production and placement control and inspection.
 2. Material sampling and testing.
- (5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

<http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>

A.2 Contractor Testing for Small Quantities

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

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

- ^[1] If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.
 - ^[2] For 3-inch material, obtain samples at load-out.
 - ^[3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.
 3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
 4. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a 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 standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
 1. Control limits are at the upper and lower specification limits.
 2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
 3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
 4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

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

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

B.6.3 Liquid Limit and Plasticity

- (1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.
- (2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

- (1) Do not blend additional material on the roadbed to correct gradation problems.
- (2) Notify the engineer whenever the running average exceeds a warning limit. When 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)

21. Base Aggregate Dense ¾-Inch, Item 305.0110.

Revise standard spec 301.2.4.3 as follows:

Furnish aggregate classified as crushed stone for ¾-Inch base when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

22. Base Aggregate Dense 1 ¼-Inch, Item 305.0120.

Revise standard spec 305.2.2.1 as follows:

Use 1 ¼ Inch base aggregate that conforms to the following gradation requirements:

SIEVE	PERCENT PASSING BY WEIGHT
1 1/4 inch	95 – 100
1 inch	---
3/4 inch	70 – 90
3/8 inch	45 – 75
No. 4	30 – 60
No. 10	20 – 40
No. 40	7 – 25
No. 200	2 – 12 ^{[1], [2]}

^[1]Limited to a maximum of 8.0 percent for base placed between old and new pavement.

^[2]3 – 10 percent passing when base is ≥50% crushed gravel

23. QMP Ride; Incentive IRI Ride, Item 440.4410.S.

A Description

- (1) This special provision describes profiling pavements with a non-contact profiler, locating areas of localized roughness, and determining the International Roughness Index (IRI) for each wheel path segment.
- (2) Profile the final riding surface of all mainline pavements. Include auxiliary lanes in Category I and II segments; crossroads with county, state or U.S. highway designations greater than 1500 feet in continuous length; bridges, bridge approaches; and railroad crossings. Exclude roundabouts and pavements within 150 feet of the points of curvature of roundabout intersections.
- (3) The engineer may direct straightedging under standard spec 415.3.10 for pavement excluded from localized roughness under C.5.2 (1); for bridges; and for roundabouts and pavements within 150 feet of the points of curvature of roundabout intersections. Other surfaces being tested under this provision are exempt from straightedging requirements.

B (Vacant)

C Construction

C.1 Quality Control Plan

- (1) Submit a written quality control plan to the engineer at or before the pre-pave meeting. 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 all quality control personnel.
 2. The process by which quality control information and corrective action efforts will be disseminated to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
 3. The methods and timing used for monitoring and/or testing ride quality throughout the paving process. Also indicate the approximate timing of acceptance testing in relation to the paving operations.
 4. The segment locations of each profile run used for acceptance testing.
 5. Traffic Control Plan

C.2 Personnel

- (1) Have a profiler operator, certified under the department's highway technician certification program (HTCP), operate the equipment, collect the required data, and analyze the results using the methods taught in the HTCP profiling course. Ensure that an HTCP-certified profiler operator supervises data entry into the material records system (MRS).

C.3 Equipment

- (1) Furnish a profile-measuring device capable of measuring IRI from the list of department-approved devices published on the department's web site:
<http://roadwaystandards.dot.wi.gov/standards/qmp/index.htm>
- (2) Unless the engineer and contractor mutually agree otherwise, arrange to have a calibrated profiler available when paving the final riding surface.
- (3) Perform daily calibration verification of the profiler using test methods according to the manufacturer's recommendations. Notify the engineer before performing the calibration verification. If the engineer requests, arrange to have the engineer observe the calibration verification and operation. Maintain records of the calibration verification activities, and provide the records to the engineer upon request.

C.4 Testing

C.4.1 Run and Reduction Parameters

- (1) Enter the equipment-specific department-approved filter settings and parameters given in the approved profilers list on the department's QMP ride web site.
<http://roadwaystandards.dot.wi.gov/standards/qmp/profilers.pdf>

C.4.2 Contractor Testing

- (1) Operate profilers within the manufacturer's recommended speed tolerances. Perform all profile runs in the direction of travel. Measure the longitudinal profile of each wheel track of each lane. The wheel tracks are 6.0 feet apart and centered in the traveled way of the lane.
- (2) Coordinate with the engineer to schedule profile runs for acceptance. The department may require testing to accommodate staged construction or if corrective action may be required.
- (3) Measure the profiles of each standard or partial segment. Define primary segments starting at a project terminus and running contiguously along the mainline to the other project terminus. Field-locate the beginning and ending points for each profile run. When applicable, align segment limits with the subplot limits used for testing under the QMP Concrete Pavement specification. Define segments one wheel path wide and distinguished by length as follows:
 1. Standard segments are 500 feet long.
 2. Partial segments are less than 500 feet long.
- (4) Treat partial segments as independent segments.

The department will categorize each standard or partial segment as follows:

Segments with a Posted Speed Limit of 55 MPH or Greater	
Category	Description
HMA I	Asphalt pavement with multiple opportunities to achieve a smooth ride. The following operations performed under this contract are considered as opportunities: a layer of HMA, a leveling or wedging layer of HMA, and diamond grinding or partial depth milling of the underlying pavement surface.
HMA II	Asphalt pavement with a single opportunity to achieve a smooth ride.
HMA III	Asphalt pavement segments containing any portion of a bridge, bridge approach, railroad crossing, or intersection. An intersection is defined as the area within the points of curvature of the intersection radii.
PCC II	Concrete pavement.
PCC III	Concrete pavement segments containing any portion of a bridge, bridge approach, railroad crossing, intersection or gap. An intersection is defined as the area within the points of curvature of the intersection radii.

Segments with Any Portion Having a Posted Speed Limit Less Than 55 MPH	
Category	Description
HMA IV	Asphalt pavement including intersections, bridges, approaches, and railroad crossings.
PCC IV	Concrete pavement including gaps, intersections, bridges, approaches, and railroad crossings.

C.4.3 Verification Testing

- (1) The department may conduct verification testing (QV) to validate the quality of the product. A HTCP certified profiler operator will perform the QV testing. The department will provide the contractor with a listing of the names and telephone numbers of all verification personnel for the project.
- (2) The department will notify the contractor before testing so the contractor can observe the QV testing. Verification testing will be performed independent of the contractor's QC work using separate equipment from the contractor's QC tests. The department will provide test results to the contractor within 1 business day after the department completes the testing.
- (3) The engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's testing procedures and equipment. Both parties will document all investigative work.

- (4) If the contractor does not respond to an engineer request to resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in C.6.

C.4.4 Documenting Profile Runs

- (1) Compute the IRI for each segment and analyze areas of localized roughness using the ProVAL software. Also, the contractor shall prepare the ProVAL Ride Quality Module Reports, showing the IRI for each segment and the areas of localized roughness exceeding an IRI of 200 in/mile. Use ride quality module report as follows:

	<u>Fixed Interval</u>	<u>Continuous (Localized Roughness)</u>
Base-length	500'	25'
Threshold	140"/Mile	200"/Mile

The ProVAL software is available for download at:

<http://www.roadprofile.com>.

- (2) As part of the profiler software outputs and ProVAL reports, document the areas of localized roughness. Field-locate the areas of localized roughness prior to the engineer's assessment for corrective actions. Document the reasons for areas excluded and submit to the engineer.
- (3) Within 5 business days after completing profiling of the pavement covered under this special provision, unless the engineer and contractor mutually agree to a different timeline, submit the electronic ProVAL project file containing the .ppf files for each profiler acceptance run data and Ride Quality Module Reports, in .pdf format using the department's Materials Reporting System (MRS) software available on the department's web site:

<http://www.atwoodsystems.com/mrs>

Notify the engineer when the Profiler Acceptance Run data and the Ride Quality Report have been submitted to the MRS system.

C.5 Corrective Actions

C.5.1 General

- (1) Analyze the data from the PROVAL reports and make corrective action recommendations to the department. The department will independently assess whether a repair will help or hurt the long-term pavement performance before deciding on corrective action. Correct the ride as the engineer directs in writing.

C.5.2 Corrective Actions for Localized Roughness

- (1) Apply localized roughness requirements to all pavements, including HMA III, PCC III, HMA IV, and PCC IV; except localized roughness requirements will not be applied to pavements within 25 feet of the following surfaces if they are not constructed under this contract: bridges, bridge approaches, or railroad crossings. The department may direct the contractor to make corrections to the pavement within the 25-foot exclusionary zones.
- (2) The engineer will review each individual wheel track for areas of localized roughness. The engineer will assess areas of localized roughness within 5 business days of receiving notification that the reports were uploaded. The engineer will analyze the report documenting areas that exceed an IRI of 200 in/mile and do one of the following for each location:
 1. Direct the contractor to correct the area to minimize the effect on the ride.
 2. Leave the area of localized roughness in place with no pay reduction.
 3. Except for HMA IV and PCC IV segments, assess a pay reduction as follows for each location in each wheel path:

Localized Roughness IRI (in/mile)	Pay Reduction^[1] (dollars)
> 200	(Length in Feet) x (IRI – 200)

^[1] A maximum \$250 pay reduction may be assessed for locations of localized roughness that are less than or equal to 25 feet long. Locations longer than 25 feet may be assessed a maximum pay reduction of \$10 per foot.

- (3) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without independent identification of that area as determined by physically riding the pavement. For corrections, use only techniques the engineer approves.
- (4) Re-profile corrected areas to verify that the IRI is less than 140 in/mile after correction. Submit a revised ProVAL ride quality module report to the reference documents section of the MRS for the corrected areas to validate the results.

C.5.3 Corrective Actions for Excessive IRI

- (1) If an individual segment IRI exceeds 140 in/mile for HMA I, HMA II, and PCC II pavements after correction for localized roughness, the engineer may require the contractor to correct that segment. Correct the segment final surface as follows:

HMA I:	Correct to an IRI of 60 in/mile using whichever of the following methods as approved by the engineer: Mill and replace the full lane width of the riding surface excluding the paved shoulder. Continuous diamond grinding or fine-tooth milling the full lane width, if required, of the riding surface including adjustment of the paved shoulders.
HMA II:	Correct to an IRI of 85 in/mile using whichever of the following methods as approved by the engineer: Mill and replace the full lane width of the riding surface excluding the paved shoulder. Continuous diamond grinding or fine-tooth milling of the full lane width, if required, of the riding surface including adjustment of the paved shoulders
PCC II:	Correct to an IRI of 85 in/mile using whichever of the following methods as approved by the engineer: Continuous diamond grinding of the full lane width, if required, of the riding surface including adjustment of the paved shoulders. Conform to sections C.1 through C.4 of Concrete Pavement Continuous Diamond Grinding Special provision contained elsewhere in the contract. Remove and replace the full lane width of the riding surface.

- (2) Re-profile corrected segments to verify that the final IRI meets the above correction limits and there are no areas of localized roughness. Enter a revised ProVAL ride quality module report for the corrected areas to the reference documents section of the MRS. Segments failing these criteria after correction are subject to the engineer's right to adjust pay for non-conforming work under standard spec 105.3.

C.6 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 testing procedures, and perform additional testing.
- (2) If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming pavement, the department will use third party testing to resolve the dispute. The department's Quality Assurance Unit, or a mutually agreed on independent testing company, 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 tester. The department may use third party tests to evaluate the quality of questionable pavement and determine the appropriate payment.

D Measurement

- (1) The department will measure Incentive IRI Ride by the dollar, adjusted as specified in E.2.

E Payment

E.1 Payment for Profiling

- (1) Costs for furnishing and operating the profiler, documenting profile results, and correcting the final pavement surface are incidental to the contract. The department will pay separately for engineer-directed corrective action performed within the 25-foot exclusionary zones under C.5.2 as extra work.

E.2 Pay Adjustment

- (1) The department will pay incentive for ride under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
440.4410.S	Incentive IRI Ride	DOL

- (2) Incentive payment is not limited, either up or down, to the amount the schedule of items shows.
- (3) The department will administer disincentives for ride under the Disincentive IRI Ride administrative item.
- (4) The department will not assess disincentive on HMA III or PCC III segments. Incentive pay for HMA III and PCC III segments will be according to the requirements for the category of the adjoining segments.
- (5) The department will adjust pay for each segment based on the initial IRI for that segment. If corrective action is required, the department will base disincentives on the IRI after correction for pavement meeting the following conditions:
 - All Pavement: The corrective work is performed in a contiguous, full lane width section 500 feet long, or a length as agreed with the engineer.
 - HMA Pavements: The corrective work is a mill and inlay or full depth replacement and the inlay or replacement layer thickness conforms to standard spec 460.3.2.
 - Concrete Pavements: The corrective work is a full depth replacement and conforms to standard spec 415.
- (6) The department will adjust pay for 500-foot long standard segments nominally one wheel path wide using equation “QMP 1.04” as follows:

HMA I	
Initial IRI (inches/mile)	Pay Adjustment^[1] (dollars per standard segment)
< 30	250
≥ 30 to <35	1750 – (50 x IRI)
≥ 35 to < 60	0
≥ 60 to < 75	1000 – (50/3 x IRI)
≥ 75	-250

HMA II and PCC II	
Initial IRI (inches/mile)	Pay Adjustment^{[1][2]} (dollars per standard segment)
< 50	250
≥ 50 to < 55	2750 – (50 x IRI)
≥ 55 to < 85	0
≥ 85 to < 100	(4250/3) – (50/3 x IRI)
≥ 100	-250

HMA IV and PCC IV	
Initial IRI (inches/mile)	Pay Adjustment^{[1][2]} (dollars per standard segment)
< 35	250
≥ 35 to < 45	1125-(25xIRI)
≥ 45	0

^[1] If the engineer directs placing upper layer asphaltic mixtures between October 15 and May 1 for department convenience as specified in standard spec 450.3.2.1(5), the department will not adjust pay for ride on pavement the department orders the contractor to place when the temperature, as defined in standard spec 450.3.2.1(2), is less than 36 F.

^[2] If the engineer directs placing concrete pavement for department convenience, the department will not adjust pay for ride on pavement the department orders the contractor to place when the air temperature falls below 35 F.

(7) The department will prorate the pay adjustment for partial segments based on their length.

440-010 (20130615)

24. QMP HMA Pavement Nuclear Density.

A Description

Replace standard spec 460.3.3.2 (1) and standard spec 460.3.3.2 (4) with the following:

- (1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 as modified in this special provision.

- (2) Provide and maintain a quality control program defined as all activities and documentation of the following:
 1. Selection of test sites.
 2. Testing.
 3. Necessary adjustments in the process.
 4. Process control inspection.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:
<http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>
- (4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:
<http://www.atwoodsystems.com/mrs>

B Materials

B.1 Personnel

- (1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.
- (2) If an ACT is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.2 Testing

- (1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

B.3 Equipment

B.3.1 General

- (1) Furnish nuclear gauges from the department's approved product list at
<http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm>.
- (2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.

- (3) Prior to each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:

Materials Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: (608) 243-5998

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

- (1) Select a representative section of the compacted pavement prior to or on the first day of paving for the correlation process. The section does not have to be the same mix design.
- (2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.
- (3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft³. Measure and record the density on the 5 additional test sites for each gauge.
- (4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft³ and repeat correlation process from B.3.2.1 (2).
- (5) Furnish one of the QC gauges passing the allowable correlation tolerances to perform density testing on the project.

B.3.2.2 Correlation Monitoring

- (1) After performing the gauge correlation specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.
- (2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.
- (3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft³ of its

reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft³ of its reference value established in B.3.2.2(2).

- (4) Maintain the reference site test data for each gauge at an agreed location.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

- (1) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.
- (2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.
- (3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.
- (4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full sublot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate sublot for that partial quantity.
- (5) Randomly select test locations for each sublot as specified in CMM 8.15 prior to paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests prior to opening the roadway to traffic.
- (6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

Lane Width	No. of Tests	Transverse Location
5 ft or less	1	Random
Greater than 5 ft to 9 ft	2	Random within 2 equal widths
Greater than 9 ft	3	Random within 3 equal widths

Table 1

B.4.1.2 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

- (1) A lot represents a combination of the total daily tonnage for each layer and target density.

- (2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one subplot for each layer.
- (3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.
- (4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per subplot and perform the number of random tests as specified in Table 2.

Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage	Minimum Number of Tests Required
25 to 100 tons	1
101 to 250 tons	3
251 to 500 tons	5
501 to 750 tons	7

Table 2

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

- (1) Calculate the average subplot densities using the individual test results in each subplot.
- (2) If all subplot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.
- (3) If any subplot average is more than one percent below the target density, do not include the individual test results from that subplot when computing the lot average density and remove that subplot's tonnage from the daily quantity for incentive. The tonnage from any such subplot is subject to disincentive pay according to standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

- (1) Determine the pavement density as specified in B.4.2.1.

B.4.2.2.2 Width of 5 Feet or Less

- (1) If all subplot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.
- (2) If a subplot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

B.4.2.3 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

- (1) Determine the pavement density as specified in B.4.2.1.

B.4.2.4 Documentation

- (1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.
- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be according to standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If 2 consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active

work zone. The contractor will supply the necessary traffic control for the department's testing activities.

- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft³ of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft³ each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft³, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft³ after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

- (1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge correlation according to B.3.2.1.
- (2) The testers may use correlation monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.
- (3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV subplot density test results or retesting of the subplot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

- (4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

- (1) The department will not accept QMP HMA Pavement Nuclear Density if a non-correlated gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

- (1) The department will administer density disincentives according to standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

- (1) Delete standard spec 460.5.2.3.
- (2) If the lot density is greater than the minimum specified in standard spec table 460-3 and all individual air voids test results for that mixture are within +1.0 percent or -0.5 percent of the design target in standard spec table 460-2, the department will adjust pay for that lot as follows:

Percent Lot Density Above Minimum	Pay Adjustment Per Ton
From -0.4 to 1.0 inclusive	\$0
From 1.1 to 1.8 inclusive	\$0.40
More than 1.8	\$0.80

- (3) The department will adjust pay under the Incentive Density HMA Pavement bid item. Adjustment under this item is not limited, either up or down, to the bid amount shown on the schedule of items.
 - (4) If a traffic lane meets the requirements for disincentive, the department will not pay incentive on the integrally paved shoulder.
 - (5) Submit density results to the department electronically using the MRS software. The department will validate all contractor data before determining pay adjustments.
- 460-020 (20100709)

25. HMA Pavement Intersections STH 106, Item 460.4200.S.

A Description

This special provision describes furnishing and placing special HMA mixture on intersections or roundabouts.

B Materials

Furnish materials conforming to standard spec 460.2. Use intersection mixtures for various mainline mixture types and using PG graded binders as follows:

Mainline Mixture	Intersection Mixture (minimum type required)	Binder ^[1]
E – 0.3	E – 3	PG 64-22 ^[2]
E – 1	E – 3	PG 64-22 ^[2]
E – 3	E – 10	PG 64-28
E – 10	E – 30	PG 70-28
E – 30	E – 30x or SMA	PG 70-28

^[1] The contractor may use other PG binders with the engineer's approval.

^[2] The contractor may, with the engineer's approval, use PG 58-28 if it matches the mainline PG binder.

C Construction

Under the HMA Pavement Intersections bid item, use intersection mixture on plan designated intersections. Use for the upper layer unless the plans show otherwise. Construct conforming to standard spec 460.3.

D Measurement

The department will measure HMA Pavement Intersections by the ton, acceptably completed using the methods specified in standard spec 450.4. The department will not measure asphaltic materials separately.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
460.4200.S	HMA Pavement Intersections STH 106	TON

Payment for HMA Pavement Intersections is full compensation for providing the intersection mixture, including asphaltic material and reclaimed asphaltic pavement materials.

460-030 (20100709)

26. Salvaged Asphaltic Pavement Milling, Item 490.0205.

Supplement standard spec 490.3.1 with the following:

Asphaltic material milled from this project shall become the property of the department. The contractor shall provide Salvaged Asphaltic Pavement Milling material in accordance to the following criteria:

- Provide 5,000 tons of Salvaged Asphaltic Pavement Milling material from the existing STH 73 asphaltic pavement. Limits of milling are at the discretion of the contractor provided that a suitable driving surface meeting the minimum criteria outlined in the Traffic section of the special provisions is satisfied during and after completion of milling operations.
- Deliver and stockpile the salvaged material at an engineer approved location at the department-owned property in the northwest quadrant of the STH 73 and STH 12/18 intersection as shown on the plans. Apply erosion control and traffic control measures at the site as provided in the plans or as directed by the engineer.
- The required quantity of salvaged asphaltic pavement shall be delivered to the designated stockpile location by August 31, 2014.
- Coordinate with the Bureau of Highway Maintenance seven days prior to the beginning of milling operations. The contact for the Bureau of Highway Maintenance is Mike Finknbinder. He can be reached by phone at (608) 266-1620 or by email at michael.finknbinder@dot.wi.gov.

27. Fence Safety, Item 616.0700.S.

A Description

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

B Materials

Furnish notched conventional metal “T” or “U” shaped fence posts.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Service Temperature:	-60° F to 200° (ASTM D648)
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S.	Fence Safety	LF

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

616-030 (20070510)

28. Shrubs (Arborvitae, Balled and Burlap, 5-foot), Item 632.0201.01.

Supplement standard spec 632.3 with the following:

The shrubs are to be planted at the SW Region I-39 Project Field Office at 111 Interstate Blvd, Edgerton WI 53534. The layout of the plantings at the site will be at the discretion of the engineer.

The shrubs will be subject to a one growing season Plant Establishment Period (PEP) as provided in standard spec 632.3.18.1.3. Plant all shrubs during the spring planting season, prior to June 1, 2014.

29. Landscape Planting Surveillance and Care Cycles.

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

632-005 (20070510)

30. Moving Signs Type 2, Item 638.2102.

Supplement standard spec 638.3.2 with the following:

Store signs removed under the Moving Signs bid item until the roadway has been prepared for sign placement.

Supplement standard spec 638.5(2) with the following:

Payment for Moving Signs is also full compensation for storing signs removed under this bid item until the roadway has been prepared for sign placement.

31. Locating No-Passing Zones, Item 648.0100.

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet).

648-005 (20060512)

32. 3D Surface Model Data.

The department will provide 3D surface model data for project 3070-00-72. The data provided is for the bidder's general knowledge only and is not a part of the contract. The department assumes no responsibility for discrepancies between the data provided and the contract documents.

The department will provide 3D surface model data before the project let date within 5 business days of a contractor request submitted by email to Craig Pringle at Craig.Pringle@dot.wi.gov.

The 3D surface model data consists of the following:

1. LandXML v1.2 files containing reference line and proposed profile information.
2. AutoCAD 2010 DWG files containing 3D face objects representing surface TIN triangles of 3D surface models as follows:
 - a. Existing ground surface
 - b. Ultimate top surface
 - Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
 - Top of shoulder and top of pavement within the roadway subgrade shoulder points.
 - c. Ultimate datum surface
 - Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
 - Subgrade surface within the roadway subgrade shoulder points.

- d. Ultimate top of subbase surface
 - Top of select borrow or select crushed material layers within the roadway edges of traveled way.
 - e. Ultimate base course surface
 - Top of base course within the roadway edges of traveled way.
3. AutoCAD 2010 DWG files containing 3D surface model longitudinal breaklines for proposed surfaces.
 4. AutoCAD 2010 DWG files containing surface outer boundaries.
 5. Superelevation transition information in a comma separated value (csv) text file.

33. Construction Staking Base, Item 650.5000.

Conform to standard spec 650 as modified in this special provision.

Replace standard spec 650.3.4 with the following:

650.3.4 Base

650.3.4.1 General

- (1) Under the Construction Staking Base bid item the contractor may substitute global positioning system (GPS) machine guidance for conventional base staking on all or part of the base for hot mix asphalt (HMA) pavement. The engineer may require the contractor to revert to conventional base staking methods for all or part of the base for hot mix asphalt (HMA) pavement at any point during construction if, in the engineer's opinion, the GPS machine guidance is producing unacceptable results.
- (2) Use GPS machine guidance for base in all areas where GPS machine guidance was used on subgrade under HMA pavement. GPS machine guidance is not required for base on short side road, driveway, or field entrance tie-ins of 200 feet or less.

650.3.4.2 Base Staking

- (1) Set construction stakes or marks at 100-foot intervals for rural sections and 50-foot intervals for urban sections. Set and maintain sufficient stakes at each cross section to match plan cross-section, achieve the required accuracy, and to support the method of operations. Set and maintain stakes as necessary to establish horizontal and vertical position along intersecting road radii, auxiliary lanes, vertical and horizontal curves, and curve transitions. Locate stakes within 0.25 feet horizontally and establish the grade elevation to within 0.03 feet vertically.

650.3.4.3 GPS Machine Guidance

650.3.4.3.1 General

- (1) No base stakes are required for work completed using GPS machine guidance.

- (2) Coordinate with the engineer throughout the course of construction to ensure that work performed using GPS machine guidance conforms to the contract tolerances and that the methods employed conform to the contractor's GPS work plan and accepted industry standards. Address GPS machine guidance issues at weekly progress meetings.

650.3.4.3.2 GPS Work Plan

- (1) Submit a comprehensive written GPS work plan for department review at least 5 business days before the preconstruction conference. The engineer will review the plan to determine if it conforms to the requirements of this special provision.
- (2) Construct the base as the contractor's GPS work plan provides. Update the plan as necessary during construction of the subgrade.
- (3) The GPS work plan should discuss how GPS machine guidance technology will be integrated into other technologies employed on the project. Include, but do not limit the contents to, the following:
 - Designate which portions of the contract will be done using GPS machine guidance and which portions will be done using conventional base staking.
 - Describe the manufacturer, model, and software version of the GPS equipment.
 - Provide information on the qualifications of contractor staff. Include formal training and field experience. Designate a single staff person as the primary contact for GPS technology issues.
 - Describe how project control is to be established. Include a list and map showing control points enveloping the site.
 - Describe site calibration procedures. Include a map of the control points used for site calibration and control points used to check the site calibration. Describe the site calibration and checking frequency as well as how the site calibration and checking information are to be documented.
 - Describe the contractor's quality control procedures. Describe procedures for checking, mechanical calibration, and maintenance of equipment. Include the frequency and type of checks performed to ensure that the constructed base conforms to the contract plans.

650.3.4.3.3 Equipment

- (1) Use GPS machine guidance equipment to meet the requirements of the contract.
- (2) Perform periodic sensor calibrations, checks for blade wear, and other routine adjustments as required to ensure that the final base conforms to the contract plans.

650.3.4.3.4 Geometric and Surface Information

650.3.4.3.4.1 Department Responsibilities

- (1) At any time after the contract is awarded the contractor may request the contractor staking packet. The department will provide the packet within 5 business days of receiving the contractor's request.

650.3.4.3.4.2 Contractor Responsibilities

- (1) Develop and maintain the initial design surface DTM for areas of the project employing GPS machine guidance. Confirm that the design surface DTM agrees with the contract plans.
- (2) Provide design surface DTM information to the department in LandXML v1.2, AutoCAD 2010 DWG, or other engineer-approved format.

650.3.4.3.4.3 Managing and Updating Information

- (1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.
- (2) Revise the design surface DTM as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised design surface DTM agrees with the contract plan revisions. Provide a copy of the resultant revised design surface DTM to the engineer in LandXML or other engineer-approved format. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.4.3.5 Site Calibration

- (1) Designate a set of control points, including a total of at least 6 horizontal and vertical points or 2 per mile, whichever is greater, for site calibration for the portion of the project employing GPS machine guidance. Incorporate the department-provided control framework used for the original survey and design.
- (2) Calibrate the site by determining the parameters governing the transformation of GPS information into the project coordinate system. Use the full set of control points designated under 650.3.4.3.5(1) for the initial site calibration. Provide the resulting site calibration file to the engineer before beginning base construction operations.

650.3.4.3.6 Construction Checks

650.3.4.3.6.1 Daily Calibration Checks

- (1) In addition to the site calibration, perform site calibration checks. Perform these checks at individual control points not used in the initial site calibration. At a minimum, check the calibration at the start of each day as described in the contractor's GPS work plan. Report out-of-tolerance checks to the engineer. The measured position must match the established position at each individual control point within the following tolerances:
 - Horizontally to 0.10 feet or less
 - Vertically to 0.05 feet or less

- (2) Discuss the previous week's daily calibration check results at the weekly progress meeting for monitoring the GPS work.

650.3.4.3.6.2 Final Base Elevation Checks

- (1) Check the base against the plan elevation at randomly selected points on cross sections located at stations evenly divisible by 100. Conduct at least 20 random checks per stage, per project, or per roadway mile whichever results in the most tests. Also, check the base at additional points as the engineer directs. Notify the engineer at least 2 business days before making base checks so the engineer can observe the process.
- (2) In lieu of the tolerances specified in 301.3.4.1(2), ensure that no individual check is off by more than 0.10 foot vertically and at least 4 of any 5 consecutively tested random base points are within 0.06 feet vertically of the plan elevation. Notify the engineer if either criterion is exceeded.
- (3) The department may conduct periodic independent base checks. The department will notify the contractor if any individual check differs by more than 0.06 feet from the design.

34. Intelligent Transportation Systems (ITS) – Control of Materials.

Supplement standard spec 106 as follows:

Standard spec 106.2 – Supply Source and Quality

Supplement standard spec 106.2 with the following:

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items	Quantity
Solar Power System For Its Non-Intrusive Wireless Vehicle Detection System	1
Dynamic Message Sign, 5 Feet By 16 Feet Full Matrix, Full Color	2
Detector, Serial Data Interface Microwave Radar	2
Cabinet, Pole-Mounted	2
Controller, Dynamic Message Sign COM 2	2
Cellular Modem 4 FLTE, with 6-In Antenna	3
Combination Ethernet Switch and Terminal Server with Fiber Ports – Single Mode	1

Contact Dean Beekman, Statewide Traffic Operations Center (STOC), at (414) 227-2154, to obtain a copy of the manufacturer list and contact names for department-furnished equipment.

Pick up small department furnished equipment, such as communication devices and controllers, from the department's STOC, 1442 W St. Paul Avenue, Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours.

Large department furnished equipment, such as DMS's will be delivered by the supplier to a contractor controlled site within Dane County. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract's Notice to Proceed.

Standard spec 106.3 – Approval of Materials

Supplement standard spec 106.3 with the following:

Design/Shop Drawings

Prior to the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the material and equipment list specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

- Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
- Mounting detail for dynamic message signs.
- Any contractor-designed structure or foundation.
- Electrical Service Meter Breaker Pedestal

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.

35. Intelligent Transportation Systems – General Requirements.

Supplement standard spec 670 as follows:

A Description

A.1 General

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

Unusual aspects of this project include:

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

A.2 Surge Protection

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

B Materials

B.1 General

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

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) and the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

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

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

B.3 Custom Equipment

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

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

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

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

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

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

B.3 Environmental Conditions

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

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

B.4 Patch Cables and Wiring

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

B.5 Surge Protection

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

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

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

C Construction

C.1 Thread Protection

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

C.2 Cable Installation

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

C.3 Wiring

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

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

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of

the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

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

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

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

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

C.4 System Operations

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

C.5 Surge Protection

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

D Measurement

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

E Payment

No separate payment will be made for the work described in this article. All work described in this article shall be included under the ITS items in the contract.

36. Intelligent Transportation Systems – Conduit.

Supplement standard spec 671.2 with the following:

671.2.4 Locate Wire

Furnish and install a No. 14 AWG stranded copper wire for future locate purposes through each conduit run. For conduit runs containing multiple ducts with common points of termination, place a single locate wire in one of the conduit ducts (an empty duct if available). Connect the locate wire by using a wire nut at each pull box, manhole, or other access point. Alternatively, use a single wire through the access points. All material furnished under this item shall meet the requirements of standard spec 655.

671.2.5 Duct Sealant

Furnish and install a climate appropriate duct sealant in all conduit openings within an environmentally protected enclosure in order to prevent vermin infestation. Environmentally protected enclosures include, but are not limited to, controller cabinets, dynamic message signs and communications huts.

37. Install Pole Mounted Cabinet, Item 673.0225.S.

A Description

This special provision describes installing department-furnished aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

Use stainless steel bolts, nuts, and washers unless otherwise specified.

All conductors, terminals, and parts that could be hazardous to maintenance personnel shall be protected with suitable insulating material.

The cabinet will be equipped with service panels. Two panels shall be provided and mounted on the cabinet sidewalls. The left side panel shall be designated as "Input/Communications," and the right side panel shall be designated as the "Service Panel."

The service panel will be equipped with a four-outlet handi-box. Wire the handi-box to the series portion of the filtering surge protector.

Use metallic conduit, fittings, and adapters required from the underground conduit transition point to the cabinet as part of this item. A typical installation requires on 2-inch conduit. Use metallic conduit according to standard spec 652.

C Construction

Fasten the field cabinet securely onto a pole. Provide bolted stainless steel connections with lock washers, locking nuts, or other engineer-approved means to prevent the connection nuts from backing off. Isolate dissimilar materials from one another using stainless steel fittings. Make all power connections to the cabinet as specified in standard spec 656.

Drill and tap the cabinet, as necessary, to mount the terminal blocks and other attachments to the service panel, to provide an entrance on the back of the cabinet for cable from the pole mounted intelligent transportation systems equipment, and to mount the service panel to the cabinet as shown in the details. Remove all sharp edges or burrs, or both, caused by the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

Install metallic conduit and weather heads on the exterior of the pole as shown in the plans, and according to the applicable requirements of standard spec 656.

D Measurement

The department will measure Install Pole Mounted Cabinet by each individual assembly, 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
673.0225.S	Install Pole Mounted Cabinet	Each

Payment is full compensation for installing the pole mounted cabinet; for making all connections and conduit/wire entrances; and for furnishing all testing. Furnishing and installing grounding components and rigid metallic conduit connected or attached to the pole are incidental to this item.

38. Install Ethernet Switch, Item 675.0400.S.

A Description

This special provision describes installing an Ethernet switch, and providing all necessary associated wiring.

B Materials

The department will furnish the Ethernet switch. Provide all necessary cables between the Ethernet switch and terminal server or other device.

C Construction

Install the Ethernet switch in a new or existing field cabinet. Connect it to devices as shown on the plans, or as directed by the engineer.

D Measurement

The department will measure Install Ethernet Switch by the unit, installed in accordance to the contract, tested, 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
675.0400.S	Install Ethernet Switch	Each

Payment is full compensation for installing an Ethernet switch; furnishing all necessary incidental hardware; and making all necessary connections.

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39. Install Ground Mount Dynamic Message Sign, Item SPV.0060.01.

A Description

This special provision describes installing a department-furnished dynamic message sign and controller on structural steel sign supports (paid for separately), and integrating the sign and making it functional in the existing system.

B Materials

The department will furnish the dynamic message sign, dynamic message sign controller and communications cable between sign and controller.

Cables not furnished by the department, nor associated with another bid item, will be considered incidental to Install Ground Mount Dynamic Message Sign.

C Construction

Install the state-furnished sign as indicated in the plans. Install the state-furnished sign controller in the pole mounted cabinet as indicated in the plans.

Connect the power and control cables in accordance to the manufacturer's recommendations.

Bond the bottom of the sign structure to one or more ground rods. Use exothermic welding at each end of the ground wire (unless the steel structure has a suitable grounding lug). Use an AWG # 6 solid, bare copper wire to bond the sign structure to the ground rod(s). Use a device that measures resistance to ground using the three-point fall-of-potential method to ensure that the resistance from the sign's ground bar to ground does not exceed 4 ohms. Add more ground rods if necessary to achieve this requirement. All grounding components will be considered incidental to Install Ground Mount Dynamic Message Sign.

D Measurement

The department will measure Install Ground Mount Dynamic Message Sign by each sign, acceptably installed and tested.

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	Install Ground Mount Dynamic Message Sign	Each

Payment is full compensation for installation of the sign and controller; fabrication and installation of all mounting hardware; furnishing and installation of control/power cables and grounding components; testing the sign and controller; and making the sign and controller fully operational.

40. Install Solar Power System - Microwave Detector, Item SPV.0060.02.

A Description

This special provision describes installing a department-furnished solar power system on a pole as part of a system detector station at locations as shown on the plans.

B Materials

The department-furnished solar power system consists of 2-85W panels, 2-120 Amp-Hour batteries, a solar power controller, and 1-solar power cabinet to house the batteries and controller.

Contractor furnished materials include outdoor rated power cable between solar power system output and state-furnished microwave detector as well as mounting hardware for the solar power assembly.

C Construction

Install the microwave detector as required in standard specs 675. Additionally, integrate the microwave detector with communications equipment as shown on the plans.

Install the solar panels facing south on the pole with the devices to be powered. If a compass is used, a correction must be made for the difference between magnetic north and true north. Install the solar panels at a tilt angle of approximately 60 degrees. The tilt angle shall be considered the angle from horizontal to the front, or face of the solar panel.

Install the cabling, ensuring that cables enter the cabinet only through the bottom, and that strain relief fittings are used to seal cable entrance points. Connect the panel to the charge controller, connecting the white wire to the positive (+) terminal and the black wire to the negative terminal (-).

D Measurement

The department will measure Install Solar Power System – Microwave Detector as a unit, with each assembly installed, functioning, tested, and accepted in accordance to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Install Solar Power System – Microwave Detector	Each

Payment is full compensation for providing the contractor furnished materials, installing the department furnished solar power assembly, and making the solar power assembly functional with the microwave detector, including testing the solar power assembly and the microwave detector ensuring the system is fully operational.

41. Install Cellular Modem, Item SPV.0060.03.

A Description

This special provision describes installing a department-furnished cellular modem assembly.

B Materials

The department will furnish the cellular modem assembly.

Provide all necessary cables and connectors between the cellular modem and communications device.

C Construction

Install the cellular modem assembly as indicated on the plans. Make connections between the cellular modem and antenna as well as other communication devices. The contractor shall mount the antenna in a way that maximizes signal strength.

D Measurement

The department will measure Install Cellular Modem by each unit, installed in accordance to the contract, tested and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Install Cellular Modem	Each

Payment is full compensation for installation of the cellular modem assembly, furnishing and installing all necessary hardware, making all necessary connections, testing the cellular modem, and making the cellular modem fully operational.

42. 50-Foot Wood Pole, Item SPV.0060.04.

A Description

This special provision describes furnishing and installing a 50-foot wood pole.

B Materials

Furnish a Class II wood pole conforming to the American Standard Specifications and Dimensions for Wood Poles (ANSI 2051), unless otherwise specified by the engineer.

Treat the wood pole in accordance to the requirements and recommendations of AWWA Standard C1 and the applicable AWWA Commodity Standards. Do not use Creosote for treatment.

Install conduit and equipment in accordance to the plans.

C Construction

Install the wood pole with 10 feet of the pole length below ground or deeper as required by soil conditions.

Install all hardware as represented in the plans. Furnish and install ground rods, wiring, and other components per National Electric Code. Furnish and install conduit and equipment in accordance to the plans.

D Measurement

The department will measure 50-Foot Wood Pole by each unit, installed in accordance to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	50-Foot Wood Pole	Each

Payment is full compensation for furnishing and installing the wood pole, furnishing and installing all necessary hardware, and making all necessary connections.

43. Removing and Returning State Owned Signs, Item SPV.0060.05.

A Description

Remove and deliver to the department one state owned Type I sign reading “BUSINESSES OPEN DURING CONSTRUCTION” being used on I-39/90 during STH 73 construction operations.

B (Vacant)

C Construction

Coordinate removal and return of the specified state owned sign with Jeffrey Holloway from the department, who can be reached at:

Telephone: (608) 246-3268

Address: Wisconsin Department of Transportation
Southwest Region Sign Shop
3601 Pierstorff Street
Madison, WI 53704

Remove the specified state owned sign from its supports at the conclusion of construction operations. Then, deliver the sign to the department’s Southwest Region Sign Shop.

The contractor shall be responsible for replacing the sign or its supports if damaged during removal or transportation.

D Measurement

The department will measure Removing and Returning Type I State Owned Signs as each state owned sign, acceptably removed and delivered.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Removing and Returning State Owned Signs	Each

Payment is full compensation for removing the state owned sign; returning the sign to the department; replacing the sign or supports if damaged during removal or transportation.

44. Baseline CPM Progress Schedule, Item SPV.0060.06; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.07.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule**108.4.1 Software**

Use the latest version of Oracle (Primavera) Project Manager (P6) version 7.0 or newer to prepare the Initial Work Plan, Baseline CPM Progress Schedule, and all Monthly CPM Updates.

108.4.1 Personnel

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

108.4.2 Definitions

The department defines terms used in standard spec 108.4 as follows:

Activity

A task, event or other project element on the schedule, during the course of the project that contributes to completing the project. Activities have a description, scheduled (or actual) start and finish dates, duration and one or more logic ties.

Critical Path

The longest continuous path of activities through the project that has the least amount of total float. In general, a delay on the critical path will extend the scheduled completion date.

Critical Path Method (CPM)

A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

Construction Activity

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

CPM Progress Schedule

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

Data Date

The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned."

Department's Preliminary Design Schedule

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

Float

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

Forecast Completion Date

The completion date(s) predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date(s), depending on progress.

Fragnet

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

Initial Work Plan

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

Intermediate Milestone Date

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

Master Program Schedule

The department's schedule for the overall I-39/90 Corridor Management Program, including intermediate milestone dates contract completion dates and codes.

Work Breakdown Structure (WBS)

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

108.4.3 Department's Preliminary Design Schedule

The department's preliminary design schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's preliminary design schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Design Schedule reflects one possible approach to the work, consistent with the phasing requirements. The logic contained in the Preliminary Design Schedule is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's preliminary design schedule is at the sole risk of the contractor

108.4.4 Contractor's Scheduling Responsibilities

The CPM Schedule shall be a tool capable of forward planning and monitoring the project. The schedule will further be used as a communication tool between the contractor and the department. It will be used to illustrate the plan, develop what-if scenarios, and analyze impacts. The accuracy and completeness of the CPM Schedule will benefit both the contractor and the department. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines.

The contractor shall submit to the department initial and monthly update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule. Schedules shall show the order in which the contractor proposes to carry out the work with logical links between activities, and calculations made using the critical path method to determine the controlling operation or operations. The contractor is responsible for assuring that each schedule shows a coordinated plan for complete performance of the work. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Contractor project management personnel shall actively participate in the schedule development, the monthly updating of progress, and all schedule revisions throughout the entire duration of the contract. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate schedule.

108.4.5 Submittals

108.4.5.1 Initial Work Plan

Within ten business days after the Initial Work Plan Workshop, as required in standard specification 103.9, submit an Initial Work Plan consisting of the following:

- Provide a detailed plan of activities to be performed within the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
- Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
- Provide activities as necessary to depict third party work related to the contract.
- Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
- Submit three copies of the Initial Work Plan schedule, including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's.
- The engineer will accept the contractor's Initial Work Plan and/or provide comments within five business days after receipt of the Initial Work Plan. Provide formal responses to the comments and resubmit the Initial Work Plan as necessary. Do not begin work until the engineer accepts the Initial Work Plan. The department will use the initial work plan to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.
- Submit an updated version of the Initial Work Plan on a bi-monthly basis (every other week) until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

108.4.5.2 Baseline CPM Progress Schedule

Within 15 business days after the Baseline CPM scheduling workshop, as required in standard specification 103.10, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM schedule. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:

- 1.1 Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
- 1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
- 1.3 Provide activities as necessary to depict third party work related to the contract. Third party work activities may include but is not limited to Railroads, Utilities, Real Estate and local government agencies.
- 1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and potential or approved weather delays; reflect involvement and reviews by the department; and coordination efforts with adjacent contractors, utility owners, and other third parties.
- 1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish- to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.
- 1.6 Schedule activities shall include the following:
 - a. A clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.
 - b. Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.
 - c. Activities shall carry a single Responsibility assignment.
- 1.7 Schedule all intermediate milestones in the proper sequence and input as either a “Start on or After” or “Finish on or Before” date. Do not use other constraint types, within the software, without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule shall encompass all the time in the contract period between the starting date and the specified completion date.
- 1.8 Using the bid quantities and unit prices, develop an anticipated cash-flow curve for the project, based on the Baseline CPM.

2. Provide three hard copies (11"x17") of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.
3. Provide a written narrative with the Baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:
 - 3.1 The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.
 - 3.2 Use of constraints.
 - 3.3 Use of calendars.
 - 3.4 Estimated number of adverse weather days on a monthly-basis.
 - 3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.
4. Submit three copies of the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's.

Within ten business days of receiving the Baseline CPM, the engineer will review the submittal, provide review comments, and schedule a workshop for the contractor to present the Baseline CPM and answer questions raised during the engineer's review.

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

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

The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer's acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements.

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

108.4.5.3 Monthly CPM Updates

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

1. Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities, through the final acceptance of the project.
2. Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of potential delay, work planned for the next 30 calendar days, and all changes to the CPM schedule. Changes to the CPM schedule include the addition or deletion of activities, changes to activity descriptions, original durations, relationships, overlap (lag/lead), constraints, calendars, or previously recorded actual dates. Justify changes to the CPM schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
4. Submit three copies of each CPM update, including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's.
5. Within five business days of receiving each CPM Update, the engineer will provide formal review comments and schedule a meeting as necessary to address comments raised in the engineer's review. Address the engineer's comments and resubmit a revised CPM Update within five business days after the engineer's request.

108.4.5.4 Three-Week Look-Ahead Schedules

Submit Three-Week Look-Ahead Schedules on a weekly basis after NTP. The schedule shall be prepared by computer. Provide three hard copies (11"x17") to the engineer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Actual as-built dates for completed activities through final acceptance of the project.
3. Planned work for the upcoming three week period.
4. The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.

5. On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look-Ahead schedules for the month when updating the CPM schedule.

108.4.5.5 Weekly Production Data (WisDOT construction PM to provide input)

Provide estimated and actual weekly production curves for items of work on a weekly basis for applicable items of work as requested by the department including but not limited to the following:

1. Provide data on the following items by the units specified:
 - Underground Facilities – LF per week
 - Retaining Walls – SF per week
 - MSE Walls
 - Other Wall Types
 - Bridge Construction
 - Foundation Pile – EACH per week
 - Foundation/Substructure Concrete – CY per week
 - Structural Steel Girders – EACH per week
 - Prestressed Concrete Girders – EACH per week
 - Deck Formwork – SF per week
 - Roadway Excavation – CY per week
 - Roadway Embankment – CY per week
 - Roadway Structural Section
 - Grading/Subgrade Preparation – SY per week
 - Base Material Placement – TON per week
 - Base Material Subgrade Preparation – SY per week
 - Asphaltic Base – TON per week
 - Asphaltic and HMA Pavements – TON per week
 - Concrete Pavement – SY per week
 - Concrete Pavement – CY per week
 - Finishing Items – SY per week

Note: Base material shall include all breaker run, base aggregate, subbase items or other base items included in the contract. Provide production information for each individual base material item.

2. For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week. Also include cumulative production curves showing the production information for each item to date.
3. Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

108.4.6 Progress Review Meetings

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

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

108.4.7 CPM Progress Schedule Revisions

A CPM Progress Schedule Revision may be submitted, prior to the next CPM Monthly Update, if necessary due to changes in the Work or project conditions as authorized by the engineer. Prepare the CPM Revision in the same format as required for CPM Monthly Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

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

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

108.4.8 Documentation Required for Time Extension Requests

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

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

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

108.4.10 Measurement for CPM Progress Schedule

The department will measure CPM Progress Schedule for each required submittal, acceptably completed.

108.4.11 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Baseline CPM Progress Schedule	Each
SPV.0060.07	CPM Progress Schedule Updates and Accepted Revisions	Each

Payment is full compensation for furnishing all work required under these bid items. The department will pay the contract unit price for the Baseline CPM progress schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

Failure to provide satisfactory schedule submittals within the times specified will result in liquidated damages being assessed and may result in the department managing to the contractor's latest accepted schedule until such time as the contractor submits an updated or revised schedule.

If the contractor does not provide satisfactory progress schedule submittals, updates and revisions, within the time specified by these specifications, the department will assess liquidated damages. The department will deduct the amount of \$500 per calendar day due to the contractor for every calendar day that the submission of the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule is delinquent.

If the Initial Work Plan, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule submittals are not received by the department within 14 calendar days after the submittal time specified, the department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the schedule is accepted.

45. Landmark Reference Monuments Special, Item SPV.0060.08.

A Description

This special provision describes preserving the location and constructing new reference monuments for existing Public Land Survey System (PLSS) section corner monuments within the proposed construction limits.

B Materials

The department can furnish aluminum monument caps if necessary. Otherwise, all materials for the monumentation and witness ties will be the responsibility of the contractor to provide. Any monuments that satisfy Wisconsin Administrative Code Chapter AE-7 will be acceptable.

C Construction

Complete the work in accordance to the pertinent requirements of standard spec 621.3 and as follows:

Obtain existing tie sheets from the Dane County Surveyor. Locate and verify existing PLSS monuments and ties. Furnish, and install if necessary, temporary and/or permanent ties. Provide a temporary tie sheet to the department and the Dane County Surveyor, for use by the public during the construction phase of the project and before the final monumentation is complete.

Perpetuate and/or reset all PLSS monuments and witnesses under the direction of a State of Wisconsin Licensed Professional Land Surveyor. Prepare the temporary and final PLSS monument records in accordance to the Wisconsin Administrative Code Chapter AE-7. Prepare and file new monument records with the Dane County Surveyor in accordance to AE-7 and provide a copy of the same to the Wis-DOT SW Region-Madison Survey Coordinator. This work shall be overseen and completed by a State of Wisconsin Licensed Professional Land Surveyor.

The approximate locations of the section corners that will likely be disturbed due to the proposed construction are listed in the table below:

Landmark Reference Monuments

Station	Offset	Township	Range	Section Corner
92+00.30	1.60' RT	05N	12E	SEC 22 EAST ¼ LINE
118+49.28	1.92' RT	05N	12E	SEC 22 NE CORNER
144+88.75	10.44' LT	05N	12E	SEC 15 EAST ¼ LINE
103''C''+98.49	2.96' RT	05N	12E	SEC 15 NE CORNER
255+52.78	78.90' LT	05N	12E	SEC 3 CENTER
362+80.10	43.02' LT	06N	12E	SEC 28 EAST ¼ LINE
389+08.61	5.56' RT	06N	12E	SEC 28 NE CORNER
415+29.12	2.02' RT	06N	12E	SEC 21 EAST ¼ LINE
441+46.67	34.41' LT	06N	12E	SEC 21 NE CORNER
468+14.41	14.10' LT	06N	12E	SEC 16 EAST ¼ LINE
494+77.60	5.63' RT	06N	12E	SEC 16 NE CORNER
521+39.50	3.63' RT	06N	12E	SEC 9 EAST ¼ LINE
548+03.82	0.40' RT	06N	12E	SEC 9 NE CORNER
574+64.01	0.34' LT	06N	12E	SEC 4 EAST ¼ LINE

Notify the Dane County Surveyor and the Wis-DOT/SW Region-Madison Survey Coordinator five working days prior to construction operations that may disturb existing monuments, with pertinent questions or for department provided monument caps.

D Measurement

The department will measure Landmark Reference Monuments 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.0060.08	Landmark Reference Monuments Special	Each

This price shall be payment in full for furnishing a Professional Land Surveyor; obtaining existing PLSS monument record tie sheet(s); preparing, providing and filing temporary/final PLSS monument record tie sheet(s) from a Professional Land Surveyor; all survey work related to the perpetuation process; the furnishing and placing of all PLSS survey monuments; the furnishing and placement of any necessary witness ties; the removal of the existing monument(s) if necessary; excavating for the placement of the new monument(s) if necessary.

46. Temporary Sand Bag Dike, Item SPV.0105.01.

A Description

This work shall consist of the construction of dikes or barriers with sand filled bags as shown on the plans and as hereinafter provided.

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

B Materials

The bags shall be canvas, burlap, nylon or other approved material. The bags shall contain a minimum of one half cubic foot of sand, be of one size and shape and be securely closed.

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

C (Vacant)

D Measurement

The department will measure Temporary Sand Bag Dike by the lump sum unit of work, complete in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Temporary Sand Bag Dike	LS

Temporary Sand Bag Dike, measured as provided above, will be paid for at the contract unit price lump sum, which shall be full compensation for furnishing and installing sand filled bags; for furnishing all excavation; for removal and disposal of the sand bags and all waste or surplus materials, including eroded materials; for shaping and restoring the area.

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

47. Electrical Service, Virtual Weigh Station, SPV.0105.02.

A Description

This work consists of all coordination and work by the contractor and electrical service Utility as required to provide electrical service from an existing source to a meter at the new Virtual Weigh Stations, in accordance to the plans and as hereinafter provided. Electrical service shall include overhead or underground single phase power to the site and to transformers near the virtual weigh station, including furnishing and installation of transformers and transformer pads; underground single phase service to the new virtual weigh station; non-metallic conduit required for crossing under paved areas; wire and terminations at transformers and at meter sockets; and meter.

Electrical work and equipment from the meter socket, conduit, and virtual weigh station electrical system terminations at the main switch; and exterior conduit stub from the meter are included under other bid items.

B (Vacant)

C Construction

Contractor shall make all arrangements and coordinate electric utility service work with Alliant Energy.

Electrical service lines within highway right-of-way may be underground. Utility to provide and install transformers and transformer pads; wire; and all terminations at tie-in to existing, at transformers and at meter socket; and shall provide and install the meter.

An allowance for electric utility company charges shall be incorporated into the lump sum bid price for this bid item. Final price may be adjusted, if necessary, by Contract Change Order if the final utility company charge is more than or less than the stated allowance.

Contractor shall include all other work not incorporated into the utility allowance but necessary for complete installation.

D Measurement

The department will measure Electrical Service, Virtual Weigh Station as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.02	Electrical Service, Virtual Weigh Station	LS

Payment shall be full compensation for providing overhead or underground single phase electric service from existing source to the meter at the virtual weigh station, transformers, transformer pads, meter, non-metallic conduit required for crossing under paved areas; and all associated coordination, labor, material, equipment, tools, and incidentals necessary to complete the work as specified herein, subject to final price adjustments for items covered by contract allowances.

48. Virtual Weigh Station System, Item SPV.0105.03.

A Description

Furnish and install a virtual weigh station system to weigh and classify commercial vehicles and process information. The work is to be coordinated and done in conjunction with project 3070-00-72 on STH 73.

The system will include two weigh-in-motion scales and components, one located on the northbound lane of STH 73, Station 123+00, north of the IH 39/90 interchange. The other

to be located on the southbound lane of STH 73, Station 552+00, south of the USH 12/18 intersection. This proposed virtual weigh station system will provide enforcement coverage of STH 73 remotely from State Patrol squad cars and gather information regarding commercial vehicle traffic on STH 73.

The Virtual Weigh Station System shall include various components that interact together. The components shall include the following:

- Weigh-in-motion (WIM) scales.
- Axle and loop detection.
- Overview image capture.
- WIM computer system.
- On-site communication system.
- Portable static wheel load scales.

The scope of work includes furnishing and installing the following:

- WIM scales, axle sensing, loops, cabinets and platforms.
- Overview image camera installation.
- Communications conduit, cabling and wiring.
- Electrical power wiring and conduit.
- On-site communication system.
- High-speed Internet service and connection.
- Portable static wheel load scales.

The objective of the department is to have a fully operational virtual weigh station system capable of accurately weighing and automatically screening vehicles in motion for enforcement purposes. Based on the weights obtained from the WIM screening, the system shall automatically display commercial vehicle weights, speeds, axle spacings and classification, as shown in the attached plans and these specifications.

The purpose of this project is not for the research and development of a system which might perform the objectives as described above. Therefore the contractor shall be required to furnish documentation which demonstrates to the satisfaction of the department that all equipment proposed for use in the virtual weigh station system is of standard manufacture; that the manufacturer has had similar equipment available for purchase for not less than seven years; and has a proven acceptable performance history while in use under conditions similar to those for the intended use.

As a minimum, the equipment documentations provided by the contractor shall include the following for the virtual weigh station system:

1. Detailed description of how the system requirements will be met.
2. Drawings showing control and display panels with descriptions.

3. Manufacturer's name and model number, supported by descriptive material for (but not limited to) the standard package components with all accessories identified under "Description." Submittals shall be supported by descriptive material, such as catalog cuts, diagrams, a database containing vehicle records showing the WIM and static weights and other data published by the manufacturer, to show conformance to specifications and plan requirements

A.1 Virtual Weigh Station System Operational Overview

The Virtual Weigh Station System shall be located on northbound and southbound locations of STH 73. These locations shall provide coverage of commercial vehicle traffic on STH 73 and shall relay that information to mobile State Patrol inspectors on their laptop computers.

All commercial vehicles approaching the Virtual Weigh Station System in the WIM lane shall produce a vehicle record containing an overview image, various weights, axles, axle spacings and speed, as well as classification information. The Virtual Weigh Station System shall determine whether each vehicle is weight compliant based on its allowable weights by vehicle classification as set by the weigh station administrator.

The Virtual Weigh Station System shall trigger an overview image camera system to capture an image of each commercial vehicle as it passes the WIM scales and will link each image with the appropriate WIM vehicle record. A vehicle bypassing the WIM scales in the opposite lane will have an image taken of it and be displayed as a violator.

Based on the parameters set forth by the user, images of commercial vehicles can be collected and stored by the System Electronics for all commercial vehicles or for only violating commercial vehicles. The user can also identify the selection criteria for a violating commercial vehicle, i.e. overweight, over-length, speeding, etc.

After the system electronics has received the data, any computer with network access will be able to connect to it and view the vehicle records with images of the suspected violating vehicles.

The system shall allow State Patrol officers to select a vehicle and view a detailed view of the record. In this view the system shall show a larger image of the vehicle to better view of the vehicle details.

The system shall also allow State Patrol officers to enter weights for vehicles when they weigh them statically and print a ticket.

The system shall allow historical searching of violating vehicles from its web pages by date range. The results should be sortable by vehicle ID, weight violation, speed, lane, class, travel direction, and date and time.

A.2 WIM Scale Auto-Calibration

To minimize or eliminate costly calibrations and maintenance, the WIM scales shall allow feedback to be provided from certified static scales. On a continuous basis, the static scales shall ensure WIM accuracy and calibration.

Calibration adjustment of the each WIM Scale shall be automatic and performed by electronic recording of WIM and static weights of the vehicle stream which are loaded to within 75% of the legal allowable limit. Auto-calibration shall incorporate speed range and vehicle class to provide more accurate results.

B Materials

Materials used in the construction of this equipment shall be of good commercial quality entirely suitable for the intended purpose. Materials shall be free from all defects and imperfections that might affect serviceability of the finished product.

The equipment shall be constructed of standard material, so that the prompt and continuing service and delivery of spare parts may be assured. The component parts need not be products of the same manufacturer.

C Construction

C.1 Virtual WIM System Functional Requirements

C.1.1 WIM Scales

The accuracy of the Virtual WIM system shall be in conformance with ASTM E1318-09 “Standard Specifications for Highway Weigh-in-Motion (WIM) Systems with User Requirements and Test Method” performance requirements for a Type III system.

The contractor shall place Concrete Pavement 11-Inches. The concrete pavement shall cover the width of the roadway as shown and be doweled and non-reinforced with 14.25-foot joint spacings as shown in the plans. The concrete pavement shall begin 200 feet prior to the proposed weigh-in-motion scale location and shall end 100 feet after, for a minimum total of 300 feet of concrete roadway. Concrete pavement shall be paved through, then an area sawcut and removed to enable WIM scale installation.

The contractor shall blanket grind the concrete roadway beginning at least 200 feet prior to the WIM scale location and ending 100 feet after the scale location, for a total of 300 feet, with a minimum 36-inch blanket grinder to ensure that the roadway meets the requirements of Section 6 of ASTM E1318.

The WIM scales shall be constructed of two independent weighing platforms placed in each lane of the roadway. The WIM scales shall measure approximately 144-inch x 38-inch including frame.

Each scale module shall be a self-contained weighing unit. Each scale module shall measure approximately 72-inch x 38-inch including frame.

There shall be two scale frames into which the two scale modules are mounted. The WIM scales shall be installed flush with the road surface.

The WIM scales shall operate properly in a temperature range of -40°F to +160°F. The WIM scales shall be weather-sealed. Any water, ice, snow, salt, debris, dirt, moisture, or sand shall not degrade scale performance. The WIM scales and their frames shall be rust proofed. All installation hardware shall be either stainless steel or rust proofed. All surface mounting bolt and service holes shall be sealed.

The design of the WIM scales is to be such to provide a fatigue life of 20 years based on weighing 10,000 trucks per day with 40,000 pound dual tandem axles

The WIM scales and frames shall be grounded as per manufacturer's recommendations. The signal processing electronic components/modules shall be protected against lightning.

C.1.2 Axle Sensors

The Virtual WIM system may use axle sensors in each lane for WIM or classification operation. If used, the axle sensors shall be Class I piezoelectric and approximately 12 feet in length.

The axle sensors shall be installed below the road surface. The axle sensors and their electrical wiring connector shall be completely water tight and sealed.

C.1.3 Loop Detectors

Each detector loop shall have a minimum loop area of 6-ft x 6-ft. Loops shall be installed in or beneath the new concrete pavement. Detector loops shall conform to WisDOT standard specifications.

Loop wire shall be 1 conductor, 14 AWG, IMSA 51-5. Loop leads shall be 2 conductor, 14 gauge, IMSA 50-2 cable.

C.1.4 System Electronics

The System Electronics shall be located near the WIM scales at each location in protective roadside cabinets. The System Electronics shall be responsible for creating truck data and formatting the truck data for a web server to enable an enforcement officer to remotely view the vehicle records via wireless Ethernet.

The Virtual WIM System Electronics shall contain the interface and signal conditioning for the inroad sensors and camera, a process computer, and an integral power supply within a single chassis. All material necessary for setup and operation of the system shall be provided including all cords and cabling. The system shall be provided with the required software pre-loaded so that it will automatically execute when the system is powered up.

The electronics shall be modular in design to facilitate easy maintenance, troubleshooting and in-field servicing. The computer, power supply and the interface electronics shall meet the following requirements.

The electronics shall include interfaces to the following components:

1. WIM scales
2. Axle sensing
3. Loops
4. Off-scale detection.
5. Camera system
6. Communications system

The roadside electronics shall provide a facility for viewing vehicle records and sensor diagnostics directly without any ancillary equipment.

All components of the electronic system, including inductive loop detectors, shall contain electrical protection to prevent damage from electrical surges, spikes and lightning.

The system shall be of a durable, industrial design and construction, and enable continuous operation, with automated start-up in the event of a power outage.

The System Electronics shall provide the following functions:

1. Perform WIM operation.
2. Weigh all vehicles traveling over WIM scales.
3. Classify all vehicles traveling on all instrumented lanes of the highway.
4. Perform weight compliance analysis on vehicles in accordance to department or agency regulations.
5. Perform sorter operation in accordance to decisions based on weight compliance analysis, other violations (speeding, improper maneuver, sudden speed change, etc.).
6. Insert sequence numbers for vehicle records for tracking purposes.
7. Capture images for all commercial vehicles.
8. Filter out all non-interesting images and format for Web server.
9. Perform data collection, data storage, file management and report generation functions for collected vehicle information.

The system shall include a data extraction system to allow data to be retrieved in the field.

The virtual weigh station shall be provided with a roadside cabinet to house the System Electronics, the WIM computer and its peripherals and the overview camera equipment.

The roadside cabinet shall be weatherproof aluminum, lined and insulated and installed with a fan. All cutouts and openings shall be vermin proofed.

All electrical work shall meet the requirements of standard spec 651.

All wires from scales, off-scale sensors, axle sensors, loops, cameras, shall be terminated on terminal strips or screw terminal connectors. The terminal strips shall be identified by terminal strip number and screw connection number. These terminal strips shall be readily accessible. All cables shall be long enough to easily reach these terminal strips. Terminal strips, splices, or other type of connections prior to these standard terminal strips shall not be allowed except for splicing of a loop to a shielded twisted loop lead.

All AC power connections shall be shielded to prevent electrical shock.

The components of the system shall provide heartbeat communication so the System's health can be monitored.

C.1.5 Camera System

The Camera System shall consist of the following system components:

1. Color and Black/White camera
2. Illuminator system
3. Video capture system

The system shall monitor commercial traffic flow on the roadway at the virtual weigh station site. It shall capture still images of trucks having violations for identification and enforcement purposes. The images shall be displayed on an operator interface, a secure webpage available from an officer's laptop. Each vehicle record number shall be displayed with the vehicle image.

One camera for each WIM location shall be provided and installed on a pole located near the virtual weigh station location. Each camera shall be capable of taking an image of both lanes. Each camera shall provide overview images of the passing commercial vehicles, detailing their cab and side. Color images shall be provided for daylight use, and black/white images shall be provided for night use. Camera images shall be crisp and clear at all times and in all lighting conditions.

Camera poles and bases shall conform to the requirements of standard spec 672.

C.1.6 Communications

Data from the virtual weigh station system shall be communicated via high-speed Internet connection. The System shall allow the operator to dial in remotely for access to the vehicle data. Each cabinet shall have its own cell modem.

C.1.7 Conduits and Pull Boxes

All cables shall be in conduit unless specifically approved by the engineer. All conduit shall meet the requirements of standard spec 671. All pull boxes shall meet the requirements of standard spec 653.

All materials shall comply with the "National Electrical Code" and the current State Standard Specifications for Highway Construction, "Highway Division Standard Drawings for design and Construction", and special requirements by department weigh-in-motion specifications. Duct seal shall be used to seal all conduits in the cabinets and in all pull boxes. All conduits shall have a polyethylene pull string with at least 210-pound break strength left in place at completion of construction.

Separate conduits shall be used for AC/DC power and low voltage signal cables. Low voltage signal cables shall include video, digital communication, sensor signal cable, and sensor excitation cables where voltage is under +/- 20 volts DC. Conduits for video and RF cables shall be of a large enough size to accommodate the maximum bend radius using factory 90-degree "bends".

C.1.8 Portable Static Wheel Load Scales

The contractor shall furnish two sets of six scale units meeting the following specifications. The units shall be portable hydraulic/analog (mechanical) designed to weigh commercial vehicles. The unit shall be applicable for use in law enforcement as a wheel-load weigher for weighing commercial vehicles which includes large trucks and buses.

Each unit shall have a large active platform measuring a minimum of 26-inches x 15-inches to accommodate the space needs of dual and large tires. The height shall not exceed ¾-inch in order to negate the need of ingress and egress ramp. The total physical weight of the unit shall not exceed 35 pounds. Each unit shall be completely waterproof and dustproof.

Each unit shall be able to accurately weigh up to 20,000 pounds, with:

1. A rate of "+ or -" 50 pounds up to 2,500 pounds.
2. A rate of "+ or -" 100 pounds between 2,500 and 10,000 pounds.
3. A rate of "+ or -" 300 pounds between 10,000 and 20,000 pounds.

The weight gradations shall be easily readable and must be in 50-lb or less increments. The readout system shall be capable of indicating weights from 0 to 20,000 pounds. The unit must have incorporated a simple zero adjust method to facilitate zeroing before each weighing.

Each unit shall remain within the acceptance tolerance when subjected to temperatures of 0 degrees or less to 120 degrees or more. Each unit shall be able to weigh accurately under conditions not absolutely level. Each unit shall be capable of 24 hours of continual use without need for battery recharge of external power source.

Each unit shall meet applicable technical requirements of Handbook 44 as they pertain to Specifications, Tolerances, and other technical requirements for wheel load scales or Class III devices.

Each unit shall be capable of being calibrated with a Portable Manual Test Stand. All weighing and measuring devices are required by State law to have an NTEP Certificate. Any piece of equipment purchased for the purposes of calibrating/testing wheel load scales must have an NTEP Certificate of Conformance

C.2 System Acceptance

The Virtual WIM System shall be accepted subject to fulfilling the following conditions:

1. System review
2. Acceptance tests (meeting WIM accuracy on a weekly basis).
3. Training

C.2.1 System Review

The VWS Vendor shall submit six copies of a system layout for each individual site. These layouts shall be submitted to the engineer for review and approval.

A preliminary on-site meeting shall be held for each site to discuss contractor's plans for the routing of conduits, cables, and placement of equipment.

C.2.2 Acceptance Tests

The virtual weigh station system, all inclusive as contracted, shall be designed, built and tested by the Vendor, and as proof of operation, the systems, overall and singularly, shall be tested at various times according to the test specifications. All field tests shall be performed by the VWS Vendor and observed by the engineer with all reports submitted to the engineer.

C.2.2.1 Factory Acceptance Tests

Prior to shipment of any equipment, Factory Acceptance Tests shall be performed for each system to verify the equipment operating as described in the contract documents and in accordance to the test specifications approved by the engineer. The Factory Acceptance Tests shall include at minimum the following:

1. A physical inspection to verify that the quality of material and workmanship satisfy specified requirements and standards and that the equipment and software under test are complete and ready for delivery.
2. A functional test to verify that the equipment and software operate as described in the contract documents.
3. A performance test to verify that the equipment satisfies performance and operation criteria.

For the purpose of these tests the equipment and software shall be configured as nearly as possible to the final configuration. Any field inputs not available at the factory test site shall be simulated to provide a close approximation to actual site conditions.

C.2.2.2 Site Acceptance Tests

After all the equipment and software have been installed at the site, the Vendor shall run tests to ensure that all equipment shall operate as specified therein contract documents. These tests shall be witnessed or conducted by the engineer within one week of the manufacturer notifying the engineer that the system is ready for testing.

C.2.2.3 Continuous Operating Test

Following successful completion of the Site Acceptance Test, a Continuous Operating Test shall be conducted for a period of 56 calendar days. During this period the virtual weigh station and its Weight Sorter System shall operate under normal conditions and shall be available for 56 consecutive days.

The virtual weigh station system shall be considered unavailable when:

1. A problem is encountered during the COT that cannot be reset by a system reboot.
2. Weekly WIM accuracy is not met.

During the Continuous Operating Test, the entire virtual weigh station system shall be fully operational under normal traffic conditions and operate trouble free for 56 consecutive days. During the continuous operating test the WIM accuracy test/database shall be printed by the engineer and met weekly as previously specified for the virtual weigh station system.

In the event the one of the above mentioned conditions occurs, the WIM Vendor will be informed and problem(s) shall be corrected and the continuous operating test shall start over until 56 continuous days of trouble free operation are experienced, at the discretion of the department. This re-start can only occur three times. In order for this test to be valid, the static scale must be fully operational for the 56 day period. The WIM Vendor must leave the site prior to the start of the continuous test and may only return if a problem is encountered or accompanied by the engineer.

Payment:

- | | |
|---|-----|
| 1. Payment upon safe and secure delivery of all equipment
at a storage location approved by the engineer | 40% |
| 2. Complete installation of the entire system | 25% |
| 3. Completion of calibration and burn-in | 10% |
| 4. Completion of the COT to the satisfaction of the engineer | 25% |

The Continuous Operating Test will be the basis for acceptance or rejection of the virtual weigh station system as a result of demonstrated performance. If the SYSTEM is rejected and there have been more than three strikes and re-starts of the APT, the parties will negotiate, in good faith, an acceptable resolution. Following such negotiations, if the same are unsuccessful, the department may execute the performance bond. Notwithstanding the foregoing, the contractor will retain/be entitled to receive all amounts paid or payable to the contractor in accordance to the above payment schedule, agreed-to by the parties:

The department shall issue a Certificate of Final Acceptance upon successful completion of the Continuous Operating Test and training program.

This calibration/acceptance procedure follows latest version ASTM E1318 Standards. Calibration is to be performed by the running of one calibration truck. The five axle, test vehicle should be of a tractor/trailer combination (3S2), complete with air ride suspension and a non-shifting static load. The truck will be loaded to within 90 to 100% of allowable Gross Vehicle Weight for the road under test. The truck is to be in excellent mechanical condition.

The calibration procedure is as follows:

1. The vehicle will be weighed at a government certified static weigh scale. The weight information on the front (single axle), drive (tandem axle group), and trailer (tandem axle group), should be recorded. The Gross Vehicle Weight (GVW) of the vehicle will be calculated by adding the three weights together
2. The distance between the five individual axles on the truck will be measured and recorded.
3. The test vehicle will make three test passes over the system under test at a selected speed which is indicative of the truck traffic at the site. Adjustments will be made by vendor personnel on site during this time to fine-tune the axle spacing, and weight output of the WIM system.
4. Once all initial adjustments have been made, the test vehicle will make an additional two test passes to confirm the accuracy of the adjustments. If all the readings fall within the latest version ASTM ranges for the WIM Type under test, and vendor personnel do not feel that additional adjustments are required, the tests will continue. If this is not the case, additional adjustments will be performed and two more confirming passes will be made by the test truck.
5. The test truck should then make an additional ten passes at a selected speed that is indicative of the truck traffic at the test site.
6. All of the data should be recorded and placed into a spreadsheet.
7. The mean error and standard deviation for all recorded measurements will be calculated at the end of the ten test passes. The calculations will be as follows:
 - A. For weight measurements, the percent error for each test pass will be calculated using the following formula:
$$[(\text{WIM Weight} - \text{Static Weight}) / \text{Static Weight}] \times 100 = \% \text{ error}$$

- B. The mean error for each weight type (single, group, GVW) will be calculated as follows:

$$\% \text{ errors for single, group or GVW} / \# \text{ of samples} = \text{Mean error}$$
 (Each weight type calculated individually)
 - C. The error for individual axle spacings will be calculated using the following formula:

$$10 \text{ of } [(WIM \text{ Axle Spacings} - \text{Actual Axle Spacing})] / 10 = \text{Mean Axle Spacing Error}$$
 (Each of the four axle spacings calculated individually)
8. All of the calculated errors will also be entered into the spreadsheet.
 9. A check will be made of the calculated result against the acceptable range for the latest version ASTM WIM Type under test. There will be one of two results:
 - A. If 95% of all recorded test results, (single axles, axle groups, GVW, axle spacing) fall within the specified tolerance for the latest version ASTM WIM Type under test then the system will have passed the requirements.
 - B. If less than 95% of the calculated differences fall within the specified tolerance for the latest version ASTM WIM Type under test then the system will be readjusted and an additional ten test passes will be required to retest the system.
 10. The testing will continue until the system passes all criteria according to current version ASTM E1318 Standards.

C.2.3 Training

The Vendor shall set up and conduct formal training programs for State Patrol personnel on the operation, maintenance and installation of the system components of the Virtual Weigh Station System. The training shall include the following:

1. Two half-day operator training sessions providing an introduction to the operation and installation of the Virtual Weigh Station Systems, and to the functions performed by the major system components. A class size of up to eight individuals per session can be expected.
2. Two one-day "hands-on" guidance sessions for operators in the operation of the systems. A class size of up to four individuals per session can be expected. This training will occur during the first two days of the Continuous Operating Test.

Schedule the training program for the week prior to the start of the operations test. The cost for the first training sessions shall be included in the contract price.

Wisconsin DOT will, from time to time, review any future training requirements. The WIM Vendor shall agree to provide future and additional training sessions upon receipt of requests from Wisconsin DOT. Wisconsin DOT will reimburse the WIM Vendor the cost of providing additional training sessions on a per diem basis and at a rate agreed

upon by Wisconsin DOT at the time of the request. Wisconsin DOT will provide classroom space for training session.

C.3 Warranty

The VWS vendor shall warrant all subsystems and system components as supplied and installed. This warranty and associated maintenance work are covered under a separate bid item.

The portable static wheel load scales shall each have a minimum 3-year warranty, to include parts, labor, shipping, updates, modifications and recalls.

D Measurement

The department will measure Virtual Weigh Station System as a single lump sum unit of work, completed and accepted in accordance to the terms of the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.03	Virtual Weigh Station System	LS

Payment shall be full compensation for furnishing and installing all materials, pavement grinding, sawing, for furnishing all labor, supervision, equipment, calibration and testing, training, tools, maintenance and incidentals. Materials and equipment included in the virtual weigh station system: control cabinets and concrete pads, load cells, scale hardware, portable static wheel load scales, piezoelectric sensors, system electronics (including all interface cards), high-speed Internet, cameras, camera poles and bases, WIM cabinets, modems, X-terminal, wiring, cabling, conduit, junction boxes, pullboxes, software and software licenses.

Base Aggregate, Concrete Pavement 11-Inch, HMA Pavement and Electrical Service will be paid for under separate bid items.

49. Virtual Weigh Station System Warranty Maintenance, Item SPV.0105.04.

A Description

Provide warranty and maintenance service for the Virtual Weigh Station System for a period of 5 years. This system, which includes two weigh-in-motion scales, cameras, sensors, system components and ancillary equipment, is situated at two STH 73 locations. Provide routine maintenance on all major systems, system components and ancillary equipment at 6-month intervals. Provide emergency repair services on an as-required basis.

A.1 Warranty Bond

The contractor shall provide a warranty bond for the Virtual Weigh Station System Warranty Maintenance. The bond will be in effect for the entire five-year warranty period

beginning when the Weigh-In-Motion Scale System is completed, operational and accepted. The bonding company must have an AM Best rating of “A-“ or better and the contractor will provide proof of a five-year bond commitment before execution of the contract.

The warranty bond amount will be for \$30,000. The bond will ensure the proper and prompt completion of required warranty work following completion of the contract work, including payments for furnishing all labor, equipment, and materials used according to this specification.

The contract bond, which remains in effect for one year beyond the completion of the project, will also include warranty work as described in this article. For the remaining four-year warranty period, provide documentation that the warranty bond will be provided in a single term four-year warranty bond.

Failure of the contractor or its surety to issue the warranty bond will be considered a default and will result in forfeiture of the face amount of the bond to the department.

All warranty work will be as prescribed in this article. At the end of the warranty period, the contractor will be relieved of the responsibility to perform further warranty work, provided all previous warranty work has been completed.

Maintain insurance, in the course of performing warranty work, as specified in standard spec 107.26 throughout the five-year warranty period.

B (Vacant)

C Methods

The WIM vendor shall warrant all subsystems and system components as supplied for 5 years from the date of issuance of the certificate of final acceptance of the WIM System by the engineer.

The warranty shall cover all WIM system components, hardware and software, included in the contract for any defects in material and workmanship. This shall include:

1. All loops, WIM Scales, off-scale sensors and piezoelectric sensors on site.
2. Interface operations and system electronics.
3. WIM cables, connectors, terminal strips and back-up batteries.
4. Structures.
5. Communication systems.
6. Overview image cameras and equipment.
7. Electrical power wiring and conduit.

The warranty agreement shall include all:

1. Mobilization, parts, labor and shipping.
2. Equipment updates, upgrades, modifications and recalls.
3. System interface and electronics updates, upgrades, modifications and recalls.
4. Traffic control.
5. Training for major system updates or upgrades.
6. Lightning protection.

The weigh-in-motion system shall be warranted by the WIM vendor, in writing, against defects in or from material, workmanship, lightning, and to perform as required by these technical special provisions, giving proper and continuous service under all conditions required and specified, or which may reasonably be inferred, for a period of 5 years from the date of acceptance. The written vendor's warranty shall be furnished to the engineer by the vendor at the time the equipment performance supporting data is submitted. All equipment weighing instruments, load cells, weigh bridge, hardware, and software shall be warranted by the manufacturer, in writing, against defects in or from material, workmanship, lightning, and perform as required by these technical special provisions for the specified period or as described above from the date of final acceptance of the project.

C.1 Maintenance Services

The scheduled maintenance service shall include the following:

1. Visual inspection, equipment checks and testing measures on all loops.
2. Cleaning, repair and testing measures on all WIM Scales (Weigh-in-motion Scale System).
3. Visual inspection and testing measures on all off-scale sensors.
4. Visual inspection, testing measures and signal checks on all piezoelectric sensors. Visual inspection and cleaning of cabinet and system electronics.
5. Maintenance of WIM cables, connectors, terminal strips and back-up batteries.
6. Electrical inspection.
7. Cabinet mechanical condition inspection.
8. Heating, ventilation and air conditioning maintenance.
9. Interface card operation inspection, testing measures and maintenance.
10. Structural integrity check of all poles.
11. Inspection and verification of computer communication systems.
12. Camera and video inspection, testing and maintenance, including cleaning of camera lenses.
13. Parts, labor and shipping.
14. Mobilization and traffic control necessary to perform the maintenance services.
15. WIM scale accuracy and calibration.
 - a. Check and record all load cell readings (raw counts, millivolts, ohms and grounding) and provide in report.
 - b. Perform linearity and repeatability tests then adjust as required. This test must be performed with a minimum 4,000 LBS certified test weights.

- c. Apply certified test weight for calibration and adjust as required. This test must be performed with a minimum 4,000 LBS certified test weights.
 - d. Perform in-motion tests and adjust as required to comply with standards
 - e. Provide printouts of the test.
16. WIM scale maintenance
- a. Lubricate load cell bolts.
 - b. Remove all grease and apply new grease to O-rings and pins.
 - c. Visually check scale platforms for visible damage.
 - d. Remove cover plates, preload bolts, and anti-lift bolts and check platform for level or rocking.
 - e. Remove platform.
 - f. Check shims for damage and replace as needed.
 - g. Remove load pin from load cells and check gasket for wear.
 - h. Check torque on load cell bolts (390 feet-lbs.).
 - i. Check all bolts in frame for tightness.
 - j. Reinstall platform, pre-load bolts torque (300 feet-lbs.), and install anti lift blocks (1/32 gap).
 - k. Replace shims and o-rings.

A report shall accompany the scheduled maintenance service and shall be submitted to the department. The report shall include:

- 1. Pass/Fail grading of all loops, scales, off-scale sensors and piezoelectric sensors.
- 2. A checklist of all components checked as listed above, as well as the location of the components and comments on their general state.
- 3. A checklist and commentary detailing whether each component (as listed above) met standards or required repairs.

C.2 Emergency Repair Services

Emergency repair services shall be completed on an as-required basis. The maximum response time for emergency repair services shall not exceed 72 hours after written receipt of notice by fax. The vendor shall initiate on-site repairs within three (3) business days of notification. Emergency repair services shall include all parts, labor, shipping, mobilization and traffic control necessary to perform the work.

D Measurement

The department will measure Virtual Weigh Station System Warranty Maintenance, as a single lump sum unit of work, completed and accepted in accordance to the terms of the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.04	Virtual Weigh Station System Warranty Maintenance	LS

Payment is full compensation for providing all warranty maintenance service, warranty bond and emergency repair service for a period of 5-years and shall include all labor, tools, parts, shipping, mobilization, traffic control and incidentals necessary to perform the warranty maintenance service.

50. Traffic Control Base Course, Item SPV.0195.01.

A Description

This special provision describes furnishing and placing temporary base course to be used for traffic control.

B Materials

The base course used to construct Traffic Control Base Course shall conform to standard specs 301.2 and 305.2 pertaining to Base Aggregate Dense 1 1/4 -Inch. The testing requirements associated with base aggregate as identified in standard spec 701 are waived for this item.

C Construction

Install Traffic Control Base Course according to standard specs 301.3 and 305.3 that pertain to Base Aggregate Dense 1 1/4-Inch. Material used under this item is to be placed, salvaged, and reused as necessary to maintain local traffic as directed by the engineer. Traffic Control Base Course is not to be incorporated into the permanent base course used in the pavement structure of the final roadway, but may be used as backfill, embankment fill, or as directed by the engineer elsewhere on the project.

D Measurement

The department will measure Traffic Control Base Course by the ton, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Traffic Control Base Course	TON

Payment is full compensation for preparing the foundation; for stockpiling, placing, shaping, compacting, and maintaining the base; and for salvaging and replacing material previously placed under this item.

**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 6 (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 3 (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.wisconsin.gov/business/engrserv/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

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance
- Participate in speed networking and mosaic exercises as arranged by DBE office
- Host information sessions not directly associated with a bid letting;
- Participate in a formal mentor protégé or joint venture with a DBE firm
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings
- Facilitate a small group DBE ‘training session’ Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs
- Participate on advisory and mega-project committees
- Sign up to receive the DBE Contracting Update
- Consider membership in relevant industry or contractor organizations
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C

Types of Efforts considered in determining GFE

This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities;
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively;
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal;
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

- I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.
- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
 - B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- D.
 - (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
 - E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.
 - F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
 - G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E

Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
 - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.
2. Create sub-quotes for the subcontracting community:
 - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
 - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
 - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request
 - d. Add attachments to sub-quotes
3. View sub-quote requests & responses:
 - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
 - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing
4. View Record of Subcontractor Outreach Effort:
 - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
 - b. Easily locate pre-qualified and certified small and disadvantaged businesses
 - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively
 - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency)

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
 - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
 - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
 - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes
 - c. Add attachments to a sub-quote
3. Create and send unsolicited sub-quotes to specific contractors:
 - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
 - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on 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 PROVISIONS 5**Fuel Cost Adjustment****A Description**

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.0100	Backfill Granular	CY	0.23
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is \$2.90 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

- (1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.
- (2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.
- (3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.
- (4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) \times Q \times BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

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

Make the following revisions to the 2014 edition of the standard specifications:

101.3 Definitions

Replace the definition of semi-final estimate with the following effective with the December 2013 letting:

Semi-final estimate An estimate indicating the engineer has measured and reported all contract quantities and materials requirements.

105.11.1 Partial Acceptance

Replace paragraph two with the following effective with the December 2013 letting:

- (2) Partial acceptance will relieve the contractor of maintenance responsibility for the designated portion of the work. By relieving the contractor of maintenance, the department does not relieve the contractor of responsibility for defective work or damages caused by the contractor's operations. Do not construe partial acceptance to be conditional final acceptance or final acceptance of any part of the project, or a waiver of any legal rights specified under 107.16.
-

105.11.2 Final Acceptance

Retitle and replace the entire text with the following effective with the December 2013 letting:

105.11.2 Project Acceptance**105.11.2.1 Inspection****105.11.2.1.1 General**

- (1) Notify the engineer when the project is substantially complete as defined in 105.11.2.1.3. As soon as it is practical, the engineer will inspect the work and categorize it as one of the following:
1. Unacceptable or not complete.
 2. Substantially complete.
 3. Complete.

105.11.2.1.2 Unacceptable or Not Complete

- (1) The engineer will identify, in writing, work that is unacceptable or not complete. Immediately correct or complete that work. The engineer will assess contract time until the work is corrected or completed.
- (2) Proceed as specified in 105.11.2.1.1 until the engineer determines that the work is complete.

105.11.2.1.3 Substantially Complete

- (1) The project is substantially complete and the engineer will no longer assess contract time if the contractor has completed all contract bid items and change order work, except for the punch-list. As applicable, the following must have occurred:
1. All lanes of traffic are open on a finished surface.
 2. All signage and traffic control devices are in place and operating.
 3. All drainage, erosion control, excavation, and embankments are completed.
 4. All safety appurtenances are completed.
- (2) The engineer will provide a written punch-list enumerating work the contractor must perform and documents the contractor must submit before the the engineer will categorize the work as complete.
1. Punch-list work includes uncompleted cleanup work required under 104.9 and minor corrective work. Immediately correct or complete the punch-list work. The engineer may restart contract time if the contractor does not complete the punch-list work within 5 business days after receiving the written punch-list. The engineer and contractor may mutually agree to extend this 5-day requirement.
 2. Punch-list documents include whatever contract required documentation is missing. The engineer may restart contract time if the contractor does not submit the punch-list documents within 15 business days after receiving the written punch-list. The engineer and contractor may mutually agree to extend this 15-day requirement.
- (3) Proceed as specified in 105.11.2.1.1 until the work is complete.

105.11.2.1.4 Complete

- (1) The project is complete when the contractor has completed all contract bid items, change order work, and punch-list work including the submission of all missing documentation.

105.11.2.2 Conditional Final Acceptance

- (1) When the engineer determines that the project is complete, the engineer will give the contractor written notice of conditional final acceptance relieving the contractor of maintenance responsibility for the completed work.

105.11.2.3 Final Acceptance

- (1) The engineer will grant final acceptance of the project after determining that all contract is work complete; all contract, materials, and payroll records are reviewed and approved; and the semi-final estimate quantities are final under 109.7.
- (2) Failure to discover defective work or materials before final acceptance does not prevent the department from rejecting that work or those materials later. The department may revoke final acceptance if the department discovers defective work or materials after it has accepted the work.

105.13.3 Submission of Claim

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Submit the claim to the project engineer as promptly as possible following the submission of the Notice of Claim, but not later than final acceptance of the project as specified in 105.11.2.3. If the contractor does not submit the claim before final acceptance of the project, the department will deny the claim.

107.17.3 Railroad Insurance Requirements

Replace paragraph one with the following effective with the December 2013 letting:

- (1) If required by the special provisions, provide or arrange for a subcontractor to provide railroad protective liability insurance in addition to the types and limits of insurance required in 107.26. Keep railroad protective liability insurance coverage in force until completing all work, under or incidental to the contract, on the railroad right of way or premises of the railroad and until the engineer determines that the work is complete as specified in 105.11.2.1.4.

107.26 Standard Insurance Requirements

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Maintain the following types and limits of commercial insurance in force until the engineer determines that the work is complete as specified in 105.11.2.1.4.

TABLE 107-1 REQUIRED INSURANCE AND MINIMUM COVERAGES

TYPE OF INSURANCE	MINIMUM LIMITS REQUIRED ^[1]
1. Commercial general liability insurance endorsed to include blanket contractual liability coverage. ^[2]	\$2 million combined single limits per occurrence with an annual aggregate limit of not less than \$4 million.
2. Workers' compensation.	Statutory limits
3. Employers' liability insurance.	Bodily injury by accident: \$100,000 each accident Bodily injury by disease: \$500,000 each accident \$100,000 each employee
4. Commercial automobile liability insurance covering all contractor-owned, non-owned, and hired vehicles used in carrying out the contract. ^[2]	\$1 million-combined single limits per occurrence.

^[1] The contractor may satisfy these requirements with primary insurance coverage or with excess/umbrella policies.

^[2] The Wisconsin Department of Transportation, its officers, agents, and employees shall be named as an additional insured under the general liability and automobile liability insurance.

108.14 Terminating the Contractor's Responsibility

Replace paragraph one with the following effective with the December 2013 letting:

- (1) The contractor's responsibilities are terminated, except as set forth in the contract bond and specified in 107.16, when the department grants final acceptance as specified in 105.11.2.3.
-

109.2 Scope of Payment

Replace paragraph two with the following effective with the December 2013 letting:

- (2) The department will pay for the quantity of work acceptably completed and measured for payment as the measurement subsection for each bid item specifies. Within the contract provide means to furnish and install the work complete and in-place. Payment is full compensation for everything required to perform the work under the applicable bid items including, but not limited to, the work elements listed in the payment subsection. Payment also includes all of the following not specifically excluded in that payment subsection:
 1. Furnishing and installing all materials as well as furnishing the labor, tools, supplies, equipment, and incidentals necessary to perform the work.
 2. All losses or damages, except as specified in 107.14, arising from one or more of the following:
 - The nature of the work.
 - The action of the elements.
 - Unforeseen difficulties encountered during prosecution of the work.
 3. All insurance costs, expenses, and risks connected with the prosecution of the work.
 4. All expenses incurred because of an engineer-ordered suspension, except as specified in 104.2.2.3.
 5. All infringements of patents, trademarks, or copyrights.
 6. All other expenses incurred to complete and protect the work under the contract.
-

109.6.1 General

Replace paragraphs three and four with the following effective with the December 2013 letting:

- (3) The department's payment of an estimate before conditional final acceptance of the work does not constitute the department's acceptance of the work, and does not relieve the contractor of responsibility for:
 1. Protecting, repairing, correcting, or renewing the work.
 2. Replacing all defects in the construction or in the materials used in the construction of the work under the contract, or responsibility for damage attributable to these defects.
 - (4) The contractor is responsible for all defects or damage that the engineer may discover on or before the engineer's conditional final acceptance of the work. The engineer is the sole judge of these defects or damage, and the contractor is liable to the department for not correcting all defects or damage.
-

109.7 Acceptance and Final Payment

Replace paragraphs one and two with the following effective with the December 2013 letting:

- (1) After the engineer grants conditional final acceptance of the work as specified in 105.11.2.2 and reviews required document submittals and materials test reports, the engineer will issue the semi-final estimate.
- (2) Within 30 calendar days after receiving the semi-final estimate, submit to the engineer a written statement of agreement or disagreement with the semi-final estimate. For an acceptable statement of disagreement, submit an item-by-item list with reasons for each disagreement. If the contractor does not submit this written statement within those 30 days, the engineer will process the final estimate for payment. The engineer and the contractor can mutually agree to extend this 30-day submission requirement.

450.3.3 Maintaining the Work

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Protect and repair the prepared foundation, tack coat, base, paved traffic lanes, shoulders, and seal coat. Correct all rich or bleeding areas, breaks, raveled spots, or other nonconforming areas in the paved surface.

455.3.2.5 Maintaining Tack Coat

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Protect and repair the existing surface and the tack coat. Correct areas with excess or deficient tack material and any breaks, raveled spots, or other areas where bond might be affected.

460.2.2.3 Aggregate Gradation Master Range

Replace paragraph one with the following effective with the January 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-3 mixes.

^[2] 15.5 for E-3 mixes.

460.2.7 HMA Mixture Design

Replace paragraph one with the following effective with the January 2014 letting:

- (1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to the department's test method number 1559 as described in CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to the department's test method number 1559.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
ESALs x 10 ⁶ (20 yr design life)	< 0.3	0.3 - < 1	1 - < 3	3 - < 10	10 - < 30	>= 30	—
LA Wear (AASHTO T96)							
100 revolutions(max % loss)	13	13	13	13	13	13	13
500 revolutions(max % loss)	50	50	45	45	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18	18	18	18
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	60 / —	65 / —	75 / 60	85 / 80	98 / 90	100/100	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	40	43	45	45	45	45
Sand Equivalency (AASHTO T176, min)	40	40	40	45	45	50	50
Gyratory Compaction							
Gyrations for N _{ini}	6	7	7	8	8	9	8
Gyrations for N _{des}	40	60	75	100	100	125	65
Gyrations for N _{max}	60	75	115	160	160	205	160
Air Voids, %V _a (%G _{mm} N _{des})	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% G _{mm} N _{ini}	<= 91.5 ^[1]	<= 90.5 ^[1]	<= 89.0 ^[1]	<= 89.0	<= 89.0	<= 89.0	—
% G _{mm} N _{max}	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	—
Dust to Binder Ratio ^[2] (% passing 0.075/P _{be})	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 ^{[4] [5]}	65 - 78 ^[4]	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)							
no antistripping additive	0.70	0.70	0.70	0.70	0.70	0.70	0.70
with antistripping additive	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Draindown at Production Temperature (%)	—	—	—	—	—	—	0.30

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

^[2] For a gradation that passes below the boundaries of the caution zone(ref. AASHTO MP3), the dust to binder ratio limits are 0.6 - 1.6.

^[3] For 9.5mm and 12.5 mm nominal maximum size mixtures, the specified VFB range is 70 - 76%.

^[4] For 37.5mm nominal maximum size mixes, the specified VFB lower limit is 67%.

^[5] For 25.0mm nominal maximum size mixes, the specified VFB lower limit is 67%.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the January 2014 letting:

- (1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75-µm	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent	+/- 1.3	+/- 1.0
VMA in percent ^[1]	- 0.5	- 0.2

^[1] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in Table 460-1.

- (2) Warning bands are defined as the area between the JMF limits and the warning limits.

460.2.8.2.1.6 Job Mix Formula Adjustment

Replace the entire text with the following effective with the January 2014 letting:

- (1) The contractor may request adjustment of the JMF according to the department's test method number 1559. Have an HTCP HMA technician certified at a level appropriate for process control and troubleshooting or mix design submit a written JMF adjustment request. Ensure that the resulting JMF is within specified master gradation bands. The department will have an HMA technician certified at level III review the proposed adjustment and, if acceptable, issue a revised JMF.
- (2) The department will not allow adjustments that do the following:
- Exceed specified JMF tolerance limits.
 - Reduce the JMF asphalt content unless the production VMA running average meets or exceeds the minimum VMA design requirement defined in table 460-1 for the mixture produced.
- (3) Have an HMA technician certified at level II make related process adjustments. If mixture redesign is necessary, submit a new JMF, subject to the same specification requirements as the original JMF.

520.3.8 Protection After Laying

Delete the entire subsection.

614.2.1 General

Replace paragraphs five and six with the following effective with the December 2013 letting:

- (5) Furnish zinc coated wire rope and fitting conforming to the plans and galvanized according to ASTM A741.
- (6) Before installation store galvanized components above ground level and away from surface run off. The department may reject material if the zinc coating is physically damaged or oxidized.
- (7) Provide manufacturer's drawings, and installation and maintenance instructions when providing proprietary systems.

614.2.3 Steel Rail and Fittings

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Furnish galvanized steel rail conforming to AASHTO M180 class A, type II beam using the single-spot test coating requirements. Furnish plates, anchor plates, post mounting brackets, and other structural steel components conforming to 506.2.2.1 and hot-dip galvanized according to ASTM A123.

614.2.7 Crash Cushions

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Furnish permanent and temporary crash cushions from the department's approved products list. Use cushions as wide or wider than the plan back-width. Furnish transitions conforming to the crash cushion manufacturer's design and specifications. Submit manufacturer crash cushion and transition design details to engineer before installing.

616.3.1 General

Replace paragraph six with the following effective with the December 2013 letting:

- (6) Remove and dispose of all excess excavation and surplus materials from the fence site.

618.3.3 Restoration

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Upon termination of hauling operations and before conditional final acceptance, restore all haul roads, including drainage facilities and other components, to the equivalent of pre-hauling conditions.

627.3.1 General

Replace paragraph four with the following effective with the December 2013 letting:

- (4) Maintain the mulched areas and repair all areas damaged by wind, erosion, traffic, fire or other causes.

637.3.2.1 General

Delete paragraph three effective with the December 2013 letting.

670.3.4.2 Post-Construction Work

Replace paragraph one with the following effective with the December 2013 letting:

- (1) Submit 5 copies of ITS documentation including but not limited to the following:
 - Operator's manual: for contractor furnished equipment, submit a manual containing detailed operating instructions for each different type or model of equipment and or operation performed.
 - Maintenance procedures manuals: for contractor furnished equipment, submit a manual containing detailed preventive and corrective maintenance procedures for each type or model of equipment furnished.
 - Cabinet fiber optic wiring diagram: submit a cabinet wiring diagram, identified by location for each cabinet. Include both electrical wiring and fiber optic conductor and cable connections. Place one copy of the fiber optic wiring diagram in a weatherproof holder in the cabinet. Deliver the other copies to the engineer.
 - As-built drawings: submit final as-built drawings that detail the final placement of all conduit, cabling, equipment, and geometric modifications within the contract. Provide all documentation in an electronic format adhering to the region's ITS computer aided drafting standards and according to the department's as-built requirements. The department will review the as-built drawings for content and electronic format. Modify both the content and format of as-built drawings until meeting all requirements.
 - Equipment inventory list: submit an inventory list including serial number, make, model, date installed, and location installed of all equipment installed under the contract.

Errata

Make the following corrections to the 2014 edition of the standard specifications:

415.3.14 Protecting Concrete

Correct errata by referencing the opening to service specification.

- (1) Erect and maintain suitable barricades and, if necessary, provide personnel to keep traffic off the newly constructed pavement until it is opened for service as specified in 415.3.15. Conform to 104.6 for methods of handling and facilitating traffic.
-

501.2.9 Concrete Curing Materials

Correct errata by changing AASHTO M171 to ASTM C171.

- (2) Furnish sheeting conforming to ASTM C171 for white opaque polyethylene film, except that the contractor may use clear or black polyethylene for cold weather protection.
-

607.2 Materials

Correct errata by changing AASHTO M198 to ASTM C990.

- (1) Use materials conforming to the requirements for the class of material named and specified below.

Composite pipe, couplings, fittings and joint materials	ASTM D2680
Annular rubber and plastic gaskets for flexible, watertight joints	ASTM C990
External rubber gaskets, mastic, and protective film.....	ASTM C877
Mortar	519.2.3
-

637.2.1.3 Sheet Aluminum

Correct errata by changing ASTM B449 to B921 and eliminating the specification for coating thickness.

- (4) Degrease, etch, and coat the sign blank on both sides with a chromate treatment conforming to ASTM B921, class 2.
-

637.3.3.4 Performance

Correct errata to reference to 105.11.2.3 as revised to implement changes to the finals process.

- (1) Under 105.11.2.3 the department may revoke acceptance and direct the contractor to repair or replace previously accepted sign installations if the department subsequently discovers evidence of defective materials or improper installation. Deficiencies that warrant department action include but are not limited to the following:
 - Sign posts more than five degrees out of plumb.
 - Signs twisted by more than 5 degrees from plan orientation.
 - Signs with delaminated or warped plywood.
 - Signs with bubbling, fading, delaminating, or buckling sheeting.
-

646.3.3.4 Proving Period

Correct errata to reference to 105.11.2.3 as revised to implement changes to the finals process.

- (4) Replace all marking within sections with a percent failing more than 10% and repair or replace all markings that, in the engineer's assessment, show evidence of improper construction. If post-acceptance inspections uncover evidence of defective materials or improper construction, the department may revoke acceptance under 105.11.2.3.

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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm>

(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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/crc-basic-info.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.

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 September 1, 2013

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	35.58	19.20	54.78
Carpenter	30.16	15.31	45.47
Cement Finisher	32.09	16.13	48.22
Future Increase(s): Add \$1.87 on 6/1/13; Add \$1.87 on 6/1/14; 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	32.94	18.80	51.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	28.00	4.50	32.50
Ironworker	30.90	19.11	50.01
Line Constructor (Electrical)	31.29	15.34	46.63
Painter	26.65	13.10	39.75
Pavement Marking Operator	29.22	16.71	45.93
Piledriver	30.66	15.31	45.97
Roofer or Waterproofor	30.40	2.23	32.63
Teledata Technician or Installer	21.26	11.75	33.01
Tuckpointer, Caulker or Cleaner	32.01	16.85	48.86
Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.64	17.00	46.64
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15.09	50.59
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65

TRUCK DRIVERS

Single Axle or Two Axle	33.22	18.90	52.12
Three or More Axle	23.31	17.13	40.44
Future Increase(s): Add \$1.85/hr on 6/1/2013. 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, Dumptror, Off Road Material Hauler	27.77	19.90	47.67
Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. 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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .			
Pavement Marking Vehicle	23.84	14.94	38.78
Shadow or Pilot Vehicle	33.22	18.90	52.12
Truck Mechanic	22.50	16.19	38.69

LABORERS

General Laborer	28.35	13.90	42.25
Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014. 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	0.00	18.00
Landscaper	28.35	13.90	42.25
Future Increase(s): Add \$1.70/hr on 6/1/13; Add \$1.60/hr on 6/1/14. 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	24.70	13.90	38.60
Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014. 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)	17.81	12.22	30.03
Railroad Track Laborer	23.41	6.91	30.32

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
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 \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. 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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .	35.22	19.90	55.12
Backhoe (Track Type) Having a Mfr.'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 \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. 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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .	34.72	19.90	54.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.	34.22	19.90	54.12

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .			
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.	33.96	19.90	53.86
Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. 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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .			
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; Oilier; 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.	33.67	19.90	53.57
Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. 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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .			
Fiber Optic Cable Equipment.	25.74	15.85	41.59

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DATE: January 3, 2014

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	\$29.32	14.53	Truck Drivers:		
				1 & 2 Axles	23.82	18.32
				Three or More Axles; Euclids, Dumptr & Articulated, Truck Mechanic.....	23.97	18.32
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer	29.42	14.53			
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.47	14.53			
Group 4:	Line and Grade Specialist	29.67	14.53			
Group 5:	Blaster and Powderman	29.52	14.53			
Group 6:	Flagperson and Traffic Control Person.....	25.67	14.53			

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.....	38.25	18.00
Heavy Equipment Operator	34.43	16.71
Equipment Operator.....	30.60	15.41
Heavy Groundman Driver.....	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman.....	21.04	12.16
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 3, 2014.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: January 3, 2014

<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	\$36.72	\$20.10	(scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader hydraulic backhoe (tractor-type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller (over 5 tons); percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches and A-frames; post driver; material hoist operator.	\$35.72	\$20.10
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.	\$36.22	\$20.10	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, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$35.46	\$20.10
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.	\$35.17	\$20.10
			Group 6: Off - road material hauler with or without ejector.....	\$29.27	\$20.10
			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: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: January 3, 2014

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	\$28.40	16.676		
Area 2:				
Electricians.....	29.13	17.92	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:	28.10	17.24	Area 6 -	KENOSHA COUNTY
Area 5	28.61	16.60		
Area 6	35.25	19.30	Area 8 -	DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES
Area 8				
Electricians.....	30.60	24.95% + 10.33	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 9:				
Electricians.....	32.94	18.71	Area 10 -	CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES
Area 10	28.97	19.55	Area 11 -	DOUGLAS COUNTY
Area 11	31.91	23.60	Area 12 -	RACINE (except Burlington township) COUNTY
Area 12	32.87	19.23	Area 13 -	MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES
Area 13	32.82	22.51	Area 14 -	Statewide.
Teledata System Installer			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.
Area 14				
Installer/Technician	21.89	11.83		
Sound & Communications				
Area 15				
Installer	16.47	14.84		
Technician	24.75	16.04		
Area 1 -	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)			

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>

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:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 CONTRACT ITEMS

0010	201.0105 CLEARING	111.000				
		STA	.		.	
0020	201.0120 CLEARING	1,124.000				
		ID	.		.	
0030	201.0205 GRUBBING	111.000				
		STA	.		.	
0040	201.0220 GRUBBING	1,124.000				
		ID	.		.	
0050	203.0100 REMOVING SMALL PIPE CULVERTS	104.000				
		EACH	.		.	
0060	203.0200 REMOVING OLD STRUCTURE (STATION) 01. STA 324+00	LUMP	LUMP			.
0070	203.0200 REMOVING OLD STRUCTURE (STATION) 02. 403+12	LUMP	LUMP			.
0080	204.0150 REMOVING CURB & GUTTER	105.000				
		LF	.		.	
0090	204.0220 REMOVING INLETS	1.000				
		EACH	.		.	
0100	204.0225 REMOVING SEPTIC TANKS	2.000				
		EACH	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	204.0230 REMOVING BUILDING (STATION) 01. STA 250+13 LT	LUMP	LUMP		.	
0120	204.0230 REMOVING BUILDING (STATION) 02. STA 442+60 RT	LUMP	LUMP		.	
0130	204.0230 REMOVING BUILDING (STATION) 03. STA 537+80 RT	LUMP	LUMP		.	
0140	204.0235 REMOVING BUILDINGS (PARCEL) 01. PARCEL 70 - PLAT 3070-00-21	LUMP	LUMP		.	
0150	204.0240 SITE CLEARANCE (PARCEL) 01. PARCEL 70 - PLAT 3070-00-21	LUMP	LUMP		.	
0160	204.0245 REMOVING STORM SEWER (SIZE) 01. 18"	115.000 LF	.		.	
0170	204.0245 REMOVING STORM SEWER (SIZE) 02. 24"	55.000 LF	.		.	
0180	204.0265 ABANDONING WELLS	2.000 EACH	.		.	
0190	205.0100 EXCAVATION COMMON	276,238.000 CY	.		.	
0200	205.0200 EXCAVATION ROCK	25,127.000 CY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0210	206.2000 EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-13-2073	LUMP	LUMP			.
0220	206.6000.S TEMPORARY SHORING	SF 885.000	.		.	
0230	209.0300.S BACKFILL COARSE AGGREGATE (SIZE) 01. NO. 2	CY 4.000	.		.	
0240	210.0100 BACKFILL STRUCTURE	CY 1,320.000	.		.	
0250	213.0100 FINISHING ROADWAY (PROJECT) 01. 3070-00-72	EACH 1.000	.		.	
0260	213.0100 FINISHING ROADWAY (PROJECT) 02. 3070-00-75	EACH 1.000	.		.	
0270	214.0100 OBLITERATING OLD ROAD	STA 8.600	.		.	
0280	305.0110 BASE AGGREGATE DENSE 3/4-INCH	TON 14,014.000	.		.	
0290	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	TON 230,550.000	.		.	
0300	311.0115 BREAKER RUN	CY 130.000	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0310	312.0110 SELECT CRUSHED MATERIAL	227,715.000 TON	.		.	
0320	415.0110 CONCRETE PAVEMENT 11-INCH	2,167.000 SY	.		.	
0330	440.4410.S INCENTIVE IRI RIDE	38,492.000 DOL	1.00000		38492.00	
0340	455.0105 ASPHALTIC MATERIAL PG58-28	3,196.000 TON	.		.	
0350	455.0605 TACK COAT	5,831.000 GAL	.		.	
0360	460.1101 HMA PAVEMENT TYPE E-1	58,103.000 TON	.		.	
0370	460.2000 INCENTIVE DENSITY HMA PAVEMENT	38,510.000 DOL	1.00000		38510.00	
0380	460.4200.S HMA PAVEMENT INTERSECTION	2,056.000 TON	.		.	
0390	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	421.000 TON	.		.	
0400	465.0315 ASPHALTIC FLUMES	857.000 SY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0410	465.0425 ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL	71,300.000 LF	.		.	
0420	465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	44,450.000 LF	.		.	
0430	490.0205 SALVAGED ASPHALTIC PAVEMENT MILLING	5,000.000 TON	.		.	
0440	504.0100 CONCRETE MASONRY CULVERTS	195.000 CY	.		.	
0450	504.0900 CONCRETE MASONRY ENDWALLS	12.800 CY	.		.	
0460	505.0410 BAR STEEL REINFORCEMENT HS CULVERTS	31,380.000 LB	.		.	
0470	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	32.000 SY	.		.	
0480	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH	994.000 LF	.		.	
0490	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH	118.000 LF	.		.	
0500	521.0130 CULVERT PIPE CORRUGATED STEEL 30-INCH	160.000 LF	.		.	
0510	521.0136 CULVERT PIPE CORRUGATED STEEL 36-INCH	73.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0520	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1	3.000 EACH	.		.	
0530	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1	3.000 EACH	.		.	
0540	521.0721 PIPE ARCH CORRUGATED STEEL 21X15-INCH	41.000 LF	.		.	
0550	521.0764 PIPE ARCH CORRUGATED STEEL 64X43-INCH	266.000 LF	.		.	
0560	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	48.000 EACH	.		.	
0570	521.1221 APRON ENDWALLS FOR PIPE ARCH STEEL 21X15-INCH	4.000 EACH	.		.	
0580	521.1524 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1	4.000 EACH	.		.	
0590	521.1530 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 30-INCH 6 TO 1	12.000 EACH	.		.	
0600	521.1536 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 36-INCH 6 TO 1	4.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0610	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	400.000 LF	.		.	
0620	522.0127 CULVERT PIPE REINFORCED CONCRETE CLASS III 27-INCH	224.000 LF	.		.	
0630	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	549.000 LF	.		.	
0640	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	751.000 LF	.		.	
0650	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH	262.000 LF	.		.	
0660	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	472.000 LF	.		.	
0670	522.0330 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH	60.000 LF	.		.	
0680	522.0342 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH	78.000 LF	.		.	
0690	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	27.000 EACH	.		.	
0700	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	31.000 EACH	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0710	522.1027 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 27-INCH	4.000 EACH	.		.	
0720	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	14.000 EACH	.		.	
0730	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	15.000 EACH	.		.	
0740	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH	1.000 EACH	.		.	
0750	523.0119 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH	160.000 LF	.		.	
0760	523.0129 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 29X45-INCH	168.000 LF	.		.	
0770	523.0134 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH	164.000 LF	.		.	
0780	523.0429 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	48.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0790	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	4.000 EACH	.		.	
0800	523.0529 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH	6.000 EACH	.		.	
0810	523.0534 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH	4.000 EACH	.		.	
0820	601.0553 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	16,272.000 LF	.		.	
0830	606.0200 RIPRAP MEDIUM	612.000 CY	.		.	
0840	606.0300 RIPRAP HEAVY	208.000 CY	.		.	
0850	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	5,617.000 LF	.		.	
0860	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	981.000 LF	.		.	
0870	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	381.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0880	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	458.000 LF	.		.	
0890	608.0430 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH	411.000 LF	.		.	
0900	611.0530 MANHOLE COVERS TYPE J	1.000 EACH	.		.	
0910	611.0627 INLET COVERS TYPE HM	32.000 EACH	.		.	
0920	611.0642 INLET COVERS TYPE MS	43.000 EACH	.		.	
0930	611.1005 CATCH BASINS 5-FT DIAMETER	3.000 EACH	.		.	
0940	611.1006 CATCH BASINS 6-FT DIAMETER	1.000 EACH	.		.	
0950	611.2004 MANHOLES 4-FT DIAMETER	1.000 EACH	.		.	
0960	611.3004 INLETS 4-FT DIAMETER	16.000 EACH	.		.	
0970	611.3253 INLETS 2.5X3-FT	12.000 EACH	.		.	
0980	611.3901 INLETS MEDIAN 1 GRATE	27.000 EACH	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0990	611.3902 INLETS MEDIAN 2 GRATE	8.000 EACH	.		.	
1000	612.0106 PIPE UNDERDRAIN 6-INCH	8,650.000 LF	.		.	
1010	612.0204 PIPE UNDERDRAIN UNPERFORATED 4-INCH	1,500.000 LF	.		.	
1020	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH	811.000 LF	.		.	
1030	612.0208 PIPE UNDERDRAIN UNPERFORATED 8-INCH	250.000 LF	.		.	
1040	612.0210 PIPE UNDERDRAIN UNPERFORATED 10-INCH	250.000 LF	.		.	
1050	612.0700 DRAIN TILE EXPLORATION	2,500.000 LF	.		.	
1060	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	10.000 EACH	.		.	
1070	616.0700.S FENCE SAFETY	980.000 LF	.		.	
1080	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 3070-00-72	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1090	619.1000 MOBILIZATION	1.000 EACH	.		.	
1100	623.0200 DUST CONTROL SURFACE TREATMENT	100,000.000 SY	.		.	
1110	624.0100 WATER	2,300.000 MGAL	.		.	
1120	625.0500 SALVAGED TOPSOIL	385,500.000 SY	.		.	
1130	627.0200 MULCHING	212,500.000 SY	.		.	
1140	628.1504 SILT FENCE	93,450.000 LF	.		.	
1150	628.1520 SILT FENCE MAINTENANCE	93,450.000 LF	.		.	
1160	628.1905 MOBILIZATIONS EROSION CONTROL	6.000 EACH	.		.	
1170	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	10.000 EACH	.		.	
1180	628.2002 EROSION MAT CLASS I TYPE A	108,000.000 SY	.		.	
1190	628.2004 EROSION MAT CLASS I TYPE B	64,100.000 SY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1200	628.2006 EROSION MAT URBAN CLASS I TYPE A	24,500.000 SY	.		.	
1210	628.2008 EROSION MAT URBAN CLASS I TYPE B	6,950.000 SY	.		.	
1220	628.5505 POLYETHYLENE SHEETING	158.000 SY	.		.	
1230	628.6510 SOIL STABILIZER TYPE B	12.000 ACRE	.		.	
1240	628.7005 INLET PROTECTION TYPE A	35.000 EACH	.		.	
1250	628.7015 INLET PROTECTION TYPE C	27.000 EACH	.		.	
1260	628.7020 INLET PROTECTION TYPE D	41.000 EACH	.		.	
1270	628.7504 TEMPORARY DITCH CHECKS	7,850.000 LF	.		.	
1280	628.7555 CULVERT PIPE CHECKS	180.000 EACH	.		.	
1290	629.0205 FERTILIZER TYPE A	240.000 CWT	.		.	
1300	630.0130 SEEDING MIXTURE NO. 30	6,950.000 LB	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1310	630.0200 SEEDING TEMPORARY	5,200.000 LB	.		.	
1320	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 01. ARBORVITAE, BALLED & BURLAP, 5-FOOT	14.000 EACH	.		.	
1330	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	10.000 EACH	.		.	
1340	633.5100 MARKERS ROW	559.000 EACH	.		.	
1350	633.5200 MARKERS CULVERT END	166.000 EACH	.		.	
1360	634.0412 POSTS WOOD 4X4-INCH X 12-FT	2.000 EACH	.		.	
1370	634.0614 POSTS WOOD 4X6-INCH X 14-FT	5.000 EACH	.		.	
1380	634.0616 POSTS WOOD 4X6-INCH X 16-FT	123.000 EACH	.		.	
1390	634.0618 POSTS WOOD 4X6-INCH X 18-FT	7.000 EACH	.		.	
1400	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS	4,000.500 LB	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1410	636.0100 SIGN SUPPORTS CONCRETE MASONRY	6.000 CY	.		.	
1420	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT	372.000 LB	.		.	
1430	637.2210 SIGNS TYPE II REFLECTIVE H	271.760 SF	.		.	
1440	637.2230 SIGNS TYPE II REFLECTIVE F	271.000 SF	.		.	
1450	638.2102 MOVING SIGNS TYPE II	53.000 EACH	.		.	
1460	638.2602 REMOVING SIGNS TYPE II	128.000 EACH	.		.	
1470	638.3000 REMOVING SMALL SIGN SUPPORTS	168.000 EACH	.		.	
1480	638.3610 ERECTING STATE OWNED SIGNS TYPE I	2.000 EACH	.		.	
1490	642.5201 FIELD OFFICE TYPE C	1.000 EACH	.		.	
1500	643.0100 TRAFFIC CONTROL (PROJECT) 01. 3070-00-72	1.000 EACH	.		.	
1510	643.0300 TRAFFIC CONTROL DRUMS	7,800.000 DAY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1520	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	9,090.000 DAY	.		.	
1530	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	18,180.000 DAY	.		.	
1540	643.0900 TRAFFIC CONTROL SIGNS	15,915.000 DAY	.		.	
1550	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	129.000 EACH	.		.	
1560	643.1050 TRAFFIC CONTROL SIGNS PCMS	60.000 DAY	.		.	
1570	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 01. 3070-00-72	1.000 EACH	.		.	
1580	643.3000 TRAFFIC CONTROL DETOUR SIGNS	54,000.000 DAY	.		.	
1590	645.0105 GEOTEXTILE FABRIC TYPE C	290.000 SY	.		.	
1600	645.0120 GEOTEXTILE FABRIC TYPE HR	1,408.000 SY	.		.	
1610	646.0106 PAVEMENT MARKING EPOXY 4-INCH	155,830.000 LF	.		.	
1620	646.0126 PAVEMENT MARKING EPOXY 8-INCH	4,300.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1630	646.0600 REMOVING PAVEMENT MARKINGS	200.000 LF	.		.	
1640	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH	201.000 LF	.		.	
1650	648.0100 LOCATING NO-PASSING ZONES	9.660 MI	.		.	
1660	650.4000 CONSTRUCTION STAKING STORM SEWER	106.000 EACH	.		.	
1670	650.4500 CONSTRUCTION STAKING SUBGRADE	59,012.000 LF	.		.	
1680	650.5000 CONSTRUCTION STAKING BASE	58,412.000 LF	.		.	
1690	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	16,272.000 LF	.		.	
1700	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	43.000 EACH	.		.	
1710	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. C-13-2073	LUMP	LUMP		.	
1720	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	725.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1730	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 3070-00-72	LUMP	LUMP		.	
1740	650.9920 CONSTRUCTION STAKING SLOPE STAKES	59,012.000 LF	.		.	
1750	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	120.000 LF	.		.	
1760	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	80.000 LF	.		.	
1770	653.0135 PULL BOXES STEEL 24X36-INCH	1.000 EACH	.		.	
1780	653.0140 PULL BOXES STEEL 24X42-INCH	2.000 EACH	.		.	
1790	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG	880.000 LF	.		.	
1800	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 01. DMS-13-0050	LUMP	LUMP		.	
1810	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 02. DMS-13-0051	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1820	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 01. DMS-13-0050	LUMP	LUMP		.	
1830	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 02. DMS-13-0051	LUMP	LUMP		.	
1840	659.0802 PLAQUES SEQUENCE IDENTIFICATION	8.000 EACH	.		.	
1850	670.0100 FIELD SYSTEM INTEGRATOR	LUMP	LUMP		.	
1860	670.0200 ITS DOCUMENTATION	LUMP	LUMP		.	
1870	673.0225.S INSTALL POLE MOUNTED CABINET	2.000 EACH	.		.	
1880	674.0200 CABLE MICROWAVE DETECTOR	82.000 LF	.		.	
1890	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY	2.000 EACH	.		.	
1900	675.0400.S INSTALL ETHERNET SWITCH	1.000 EACH	.		.	
1910	678.0500 COMMUNICATION SYSTEM TESTING	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1920	690.0150 SAWING ASPHALT	700.000				
		LF	.		.	
1930	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT	596.000	1.00000		596.00	
		DOL				
1940	715.0502 INCENTIVE STRENGTH CONCRETE STRUCTURES	1,170.000	1.00000		1170.00	
		DOL				
1950	ASP.1T0A ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	3,000.000	5.00000		15000.00	
		HRS				
1960	ASP.1T0G ON-THE-JOB TRAINING GRADUATE AT \$5. 00/HR	1,850.000	5.00000		9250.00	
		HRS				
1970	SPV.0060 SPECIAL 01. INSTALL GROUND MOUNT DYNAMIC MESSAGE SIGN	2.000				
		EACH	.		.	
1980	SPV.0060 SPECIAL 02. INSTALL SOLAR POWER SYSTEM - MICROWAVE DETECTOR	1.000				
		EACH	.		.	
1990	SPV.0060 SPECIAL 03. INSTALL CELLULAR MODEM	3.000				
		EACH	.		.	
2000	SPV.0060 SPECIAL 04. 50-FOOT WOOD POLE	2.000				
		EACH	.		.	
2010	SPV.0060 SPECIAL 05. REMOVING AND RETURNING STATE OWNED SIGNS	2.000				
		EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20140311005

3070-00-72

WISC 2014064

3070-00-75

WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2020	SPV.0060 SPECIAL 06. BASELINE CPM PROGRESS SCHEDULE	1.000 EACH	.		.	
2030	SPV.0060 SPECIAL 07. CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS	8.000 EACH	.		.	
2040	SPV.0060 SPECIAL 08. LANDMARK REFERENCE MONUMENTS SPECIAL	14.000 EACH	.		.	
2050	SPV.0105 SPECIAL 01. TEMPORARY SAND BAG DIKE	LUMP	LUMP		.	
2060	SPV.0105 SPECIAL 02. ELECTRICAL SERVICE VIRTUAL WEIGH STATION	LUMP	LUMP		.	
2070	SPV.0105 SPECIAL 03. VIRTUAL WEIGH STATION SYSTEM	LUMP	LUMP		.	
2080	SPV.0105 SPECIAL 04. VIRTUAL WEIGH STATION SYSTEM WARRANTY MAINTENANCE	LUMP	LUMP		.	
2090	SPV.0195 SPECIAL 01. TRAFFIC CONTROL BASE COURSE	10,000.000 TON	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	

PLEASE ATTACH SCHEDULE OF ITEMS HERE



Wisconsin Department of Transportation

February 26, 2014

**Division of Transportation Systems
Development**

Bureau of Project Development
4802 Sheboygan Avenue, Rm 601
P O Box 7916
Madison, WI 53707-7916

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Federal Wage Rate Addendum #1

Letting of March 11, 2014

Attached are copies of the revised U.S. Department of Labor Wage Rates that are effective for many proposals in the March 11, 2014 letting. The first 13 pages of the attachment are the first page of the county highway wage sheets (Page 1 of 3) and correspond to the affected proposal's county. The last two pages of the attachment are pages 2 and 3 of the highway wage sheets, which are the same for all counties.

The following proposals and counties are affected in the March 11, 2014 letting:

02 LaCrosse	04 Dane
05 Dane	06 Dane
13 Sheboygan	14 Kewaunee
15 Brown	16 Marinette
17 Brown	19 Winnebago
21 Marathon	22 Portage
23 Shawano	24 Buffalo
26 Sawyer	28 Crawford

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractors.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

<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	\$36.72	\$20.10	(scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader hydraulic backhoe (tractor-type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller (over 5 tons); percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches and A-frames; post driver; material hoist operator.	\$35.72	\$20.10
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.	\$36.22	\$20.10	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, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$35.46	\$20.10
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.	\$35.17	\$20.10
			Group 6: Off - road material hauler with or without ejector.....	\$29.27	\$20.10
			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: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

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	\$28.40	16.676		
Area 2:				
Electricians.....	29.13	17.92	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:	28.50	28.75% + 9.27	Area 6 -	KENOSHA COUNTY
Area 5	28.96	24.85% + 9.70	Area 8 -	DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES
Area 6	35.25	19.30		
Area 8				
Electricians.....	30.60	24.95% + 10.33	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 9:				
Electricians.....	32.94	18.71	Area 10 -	CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES
Area 10	28.97	19.55	Area 11 -	DOUGLAS COUNTY
Area 11	31.91	23.60	Area 12 -	RACINE (except Burlington township) COUNTY
Area 12	32.87	19.23	Area 13 -	MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES
Area 13	32.82	22.51	Area 14 -	Statewide.
Teledata System Installer			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.
Area 14				
Installer/Technician	21.89	11.83		
Sound & Communications				
Area 15				
Installer	16.47	14.84		
Technician	24.75	16.04		
Area 1 -	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)			

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

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				<u>Truck Drivers:</u>			
.....\$29.04				1 & 2 Axles			
14.53				23.82			
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);				Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....			
29.14				23.97			
14.53							
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....							
29.19							
14.53							
Group 4: Line and Grade Specialist							
29.39							
14.53							
Group 5: Blaster and Powderman							
29.24							
14.53							
Group 6: Flagperson; Traffic Control							
25.67							
14.53							

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 3, 2014; Modification #1, dated February 7,
2014.

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.77	16.62
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	28.72	23.47
Cement Mason/Concrete Finisher	31.52	16.30
Electrician	See Page 3	
Line Construction		
Lineman.....	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator.....	31.60	32% + 5.00
Heavy Groundman Driver.....	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman.....	21.73	32% + 5.00
Painters	22.82	11.52
Well Drilling:		
Well Driller.....	16.52	3.70

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

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						<u>Truck Drivers:</u>	
						1 & 2 Axles	
						23.82	
						Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	
						23.97	
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);							
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....							
Group 4: Line and Grade Specialist							
Group 5: Blaster and Powderman							
Group 6: Flagperson; Traffic Control							

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.42	16.97
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	34.15	22.05
Cement Mason/Concrete Finisher	31.37	16.85
Electrician		See Page 3
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	21.15	11.53
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 3, 2014; Modification #1, dated February 7, 2014.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits			Basic Hourly Rates	Fringe Benefits
				<u>Truck Drivers:</u>			
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	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	23.97	18.32	
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.20	17.19
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	31.50	20.03
Cement Mason/Concrete Finisher	31.37	16.85
Electrician	See Page 3	
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	21.15	11.53
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 3, 2014; Modification #1, dated February 7, 2014.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

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	\$29.32	14.53	Truck Drivers:		
				1 & 2 Axles	23.82	18.32
				Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	23.97	18.32
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer	29.42	14.53			
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.47	14.53			
Group 4:	Line and Grade Specialist	29.67	14.53			
Group 5:	Blaster and Powderman	29.52	14.53			
Group 6:	Flagperson and Traffic Control Person.....	25.67	14.53			

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.....	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator.....	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	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 3, 2014; Modification #1, dated February 7, 2014.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits			Basic Hourly Rates	Fringe Benefits
				<u>Truck Drivers:</u>			
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	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	23.97	18.32	
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.77	16.62
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	28.72	23.47
Cement Mason/Concrete Finisher	31.52	16.30
Electrician	See Page 3	
Line Construction		
Lineman.....	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator.....	31.60	32% + 5.00
Heavy Groundman Driver.....	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	22.82	11.52
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 3, 2014; Modification #1, dated February 7, 2014.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

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	\$29.04	14.53			
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53			
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	29.19	14.53			
Group 4: Line and Grade Specialist	29.39	14.53			
Group 5: Blaster and Powderman	29.24	14.53			
Group 6: Flagperson; Traffic Control	25.67	14.53			
			<u>Truck Drivers:</u>		
			1 & 2 Axles	23.82	18.32
			Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	23.97	18.32

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.20	17.19
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	31.50	20.03
Cement Mason/Concrete Finisher	31.37	16.85
Electrician	See Page 3	
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	21.15	11.53
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 3, 2014; Modification #1, dated February 7, 2014.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI140010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: February 7, 2014

LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits	Truck Drivers:		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	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	23.97	18.32	
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

CLASSES OF LABORER AND MECHANICS

Bricklayer	31.34	16.05
Carpenter	30.48.....	15.80
Millwright	32.11.....	15.80
Piledriverman	30.98.....	15.80
Ironworker	31.50	20.03
Cement Mason/Concrete Finisher	31.52	16.30
Electrician		See Page 3
Line Construction		
Lineman.....	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator.....	31.60	32% + 5.00
Heavy Groundman Driver.....	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman.....	21.73	32% + 5.00
Painters	22.82	11.52
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 3, 2014; Modification #1, dated February 7, 2014.

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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	\$29.04	14.53			
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53			
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	29.19	14.53			
Group 4: Line and Grade Specialist	29.39	14.53			
Group 5: Blaster and Powderman	29.24	14.53			
Group 6: Flagperson; Traffic Control	25.67	14.53			
			<u>Truck Drivers:</u>		
			1 & 2 Axles	23.82	18.32
			Three or More Axles; Euclids, Dumptr & Articulated, Truck Mechanic	23.97	18.32

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.77	16.62
Carpenter (Except NE Corner)	30.48	15.80
Millwright (Except NE Corner)	32.11	15.80
Piledriverman (Except NE Corner)	30.98	15.80
Carpenter (Northeast Part)	22.61	7.97
Millwright (Northeast Part)	24.16	7.97
Piledriverman (Northeast Part)	23.11	7.97
Ironworker	28.72	23.47
Cement Mason/Concrete Finisher	31.52	16.30
Electrician	See Page 3	
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	22.82	11.52
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 3, 2014; Modification #1, dated February 7, 2014.

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				<u>Truck Drivers:</u>			
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	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	23.97	18.32	
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

CLASSES OF LABORER AND MECHANICS

Bricklayer	31.34	16.05
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	31.50	20.03
Cement Mason/Concrete Finisher	31.52	16.30
Electrician		See Page 3
Line Construction		
Lineman.....	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator.....	31.60	32% + 5.00
Heavy Groundman Driver.....	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman.....	21.73	32% + 5.00
Painters	22.82	11.52
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 3, 2014; Modification #1, dated February 7, 2014.

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LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits			Basic Hourly Rates	Fringe Benefits
				<u>Truck Drivers:</u>			
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	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	23.97	18.32	
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.42	16.97
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	29.34	22.05
Cement Mason/Concrete Finisher	32.78	16.80
Electrician	See Page 3	
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	21.73	32% + 5.00
Painters	24.11	12.15
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 3, 2014; Modification #1, dated February 7, 2014.

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				<u>Truck Drivers:</u>			
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	\$29.04	14.53	1 & 2 Axles	23.82	18.32	
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Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....	29.19	14.53				
Group 4:	Line and Grade Specialist	29.39	14.53				
Group 5:	Blaster and Powderman	29.24	14.53				
Group 6:	Flagperson; Traffic Control	25.67	14.53				

CLASSES OF LABORER AND MECHANICS

Bricklayer	26.78	12.75
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	28.72	23.47
Cement Mason/Concrete Finisher	31.52	16.30
Electrician		See Page 3
Line Construction		
Lineman	39.50	32% + 5.00
Heavy Equipment Operator	37.53	32% + 5.00
Equipment Operator	31.60	32% + 5.00
Heavy Groundman Driver	26.78	14.11
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Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53			
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	29.19	14.53			
Group 4: Line and Grade Specialist	29.39	14.53			
Group 5: Blaster and Powderman	29.24	14.53			
Group 6: Flagperson; Traffic Control	25.67	14.53			
			<u>Truck Drivers:</u>		
			1 & 2 Axles	23.82	18.32
			Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	23.97	18.32

CLASSES OF LABORER AND MECHANICS

Bricklayer	30.77	16.62
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	28.72	23.47
Cement Mason/Concrete Finisher	31.52	16.30
Electrician	See Page 3	
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				1 & 2 Axles			
				Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....			
						23.82	
						23.97	
						18.32	
						18.32	
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);						29.14	
						14.53	
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man.....						29.19	
						14.53	
Group 4: Line and Grade Specialist						29.39	
						14.53	
Group 5: Blaster and Powderman						29.24	
						14.53	
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						14.53	

CLASSES OF LABORER AND MECHANICS

Bricklayer	26.78	12.75
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Millwright	32.11	15.80
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Wisconsin Department of Transportation

February 27, 2014

Division of Transportation Systems Development

Bureau of Project Development
4802 Sheboygan Avenue, Rm 601
P O Box 7916
Madison, WI 53707-7916

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #05: 3070-00-72, WISC 2014 064
IH 39 - Columbus
Pierce Road to Fadness Road
STH 73
Dane County

3070-00-75, WISC 2014 061
IH 39 - Columbus
Virtual Weigh Stations
STH 73
Dane County

Letting of March 11, 2014

This is Addendum No. 1, which provides for the following:

Special Provisions

Revised Special Provisions	
Article No.	Description
13	Utilities
26	Salvaged Asphaltic Pavement Milling, Item 490.0205

Added Special Provisions	
Article No.	Description
51	High Recycled HMA Mix E-3, Item SPV.0195.02
52	WisDOT Modified Test Procedure – AASHTO T 324-11
53	WisDOT Modified Test Procedure – ASTM D 7313-07
54	Standard Method of Test for Evaluation of Asphalt Mixture Crack Propagation using the Semi-Circular Bend Test (SCB)

Deleted Special Provisions	
Article No.	Description
25	HMA Pavement Intersection STH 106, Item 460.4200.S

Schedule of Items

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
305.0120	Base Aggregate Dense 1 ¼-Inch	Ton	230,550	229,794	229,794
455.0105	Asphaltic Material PG 58-28	Ton	3,196	738	738
460.2000	Incentive Density HMA Pavement	Dol	38,510	42,340	42,340

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
460.1103	HMA Pavement Type E-3	Ton	0	13,412	13,412
SPV.0195.02	High Recycled HMA Mix E-3	Ton	0	52,741	52,741

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
460.1101	HMA Pavement Type E-1	Ton	58,103	0	0
460.4200.S	HMA Pavement Intersection	Ton	2,056	0	0

Plan Sheets

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
4	Typical Sections (Revised Pavement Structure Legend)
5 - 6	Typical Sections (Revised Pavement Structure Legend, Revised Notes, Revised pavement structure callouts)
7 - 9	Typical Sections (Revised Pavement Structure Legend, Revised pavement structure callouts)
10 - 14	Typical Sections (Revised Pavement Structure Legend)
15	Typical Sections (Revised Pavement Structure Legend, Revised pavement structure callouts)
23 - 36	Intersection Details – STH 73 (Revised legend, revised asphalt pavement callouts)
37	Plan Details – WIM Inspection Site (Revised legend)
203	Miscellaneous Quantities (Revised quantity for 305.0120 Base Aggregate Dense 1 ¼-Inch)
204	Miscellaneous Quantities (Revised quantity for 305.0120 Base Aggregate Dense 1 ¼-Inch)
205	Miscellaneous Quantities (Revised HMA Pavement Depth for mainline pavement, Revised quantity for 455.0105 Asphaltic Pavement Material PG 58-28, Remove item 460.1101 HMA Pavement Type E-1, Add item 460.1103 HMA Pavement Type E-3, Remove item 460.4200.S HMA Pavement Intersection, Add item SPV.0195.02 High Recycled HMA Mix E-3, Add HMA pavement notes)
206	Miscellaneous Quantities (Revised HMA Pavement Depth for WIM Inspection Site pavement, Revised quantity for 455.0105 Asphaltic Pavement Material PG 58-28, Remove item 460.1101 HMA Pavement Type E-1, Add item 460.1103 HMA Pavement Type E-3, Remove item 460.4200.S HMA Pavement Intersection, Add item SPV.0195.02 High Recycled HMA Mix E-3, Add HMA pavement notes)
207	Miscellaneous Quantities (Remove item 460.1101 HMA Pavement Type E-1, Add item 460.1103 HMA Pavement Type E-3, Remove item 460.4200.S HMA Pavement Intersection, Add item SPV.0195.02 High Recycled HMA Mix E-3, Add HMA pavement notes)

208	Miscellaneous Quantities (Revised quantity for 455.0105 Asphaltic Pavement Material PG 58-28, Remove item 460.1101 HMA Pavement Type E-1, Add item 460.1103 HMA Pavement Type E-3, Remove item 460.4200.S HMA Pavement Intersection, Add item SPV.0195.02 High Recycled HMA Mix E-3, Add HMA pavement notes)
-----	--

Other

None

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Terry Lammert

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 1

3070-00-72/75

February 27, 2014

Special Provisions

13. Utilities

Replace the entire article with the following:

This contract comes under the provision of Administrative Rule Trans 220.

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

Contact each utility company listed in the plans, prior to preparing their bids, to obtain current information of the status of existing and any new utility relocation work.

American Transmission Company

American Transmission has a 345kV transmission line that crosses STH 73 at approximately Station 454+00. No Conflict is anticipated. Note: OSHA Safe working distance to energized transmission lines applies. The contact for American Transmission Company is Mike Olsen, molsen@atcllc.com, Office (920) 338-6582, Mobile (920) 660-2390.

Alliant Energy (WPL) Electric

Alliant Energy will be relocating overhead and underground power transmission lines along the entire project. Work will begin in late January 2014 and is expected to be complete by April 30, 2014. This work will need to be coordinated with highway construction. The contact for Alliant Energy is Jason Hogan, JasonHogan@alliantenergy.com, Office (608) 458-4871, Mobile (608) 395-7395.

Alliant Energy (WPL) Gas

Alliant Energy Gas has a gas line at two locations on the project:

1. A 20 inch gas transmission line crosses STH 73 at station 454+40. A portion of the existing pipe is to be cut out and replaced. A new gas system rectifier (anode) bed will also be relocated out of right of way between station 454+20 and station 458+00 prior to construction. The existing anode bed will be abandoned in place. This work is expected to be complete by May 30, 2014. This work will need to be coordinated with highway construction.

The transmission line will need to be protected from heavy equipment after the existing road surface has been removed. Contact Alliant Energy – Kevin Doyle at least 2 weeks prior to coordinate for adequate matting be placed over the top of pipe, KevinDoyle@alliantenergy.com, Mobile (608) 364-6543.

2. A 4 inch gas line runs along the north side of Prairie Queen Road from station 595+00PR to 598+00PR and will be lowered. The 2 inch line that taps into this line at station 599+25PR and heads north to approximately station 540+00 where it crosses STH 73 will be retired. A new 4 inch gas line will be installed starting at station 521+00 to station 540+00 LT will be placed approximately 5-feet inside the right-of-way, where it will tie into the existing service for Hinchley Family Farms. This work is expected to be complete by May 30, 2014. This work will need to be

coordinated with highway construction. The Contact for Alliant Gas is Mark Schoen, MarkSchoen@alliantenergy.com, Office (608) 877-1648, Mobile (608) 206-4819.

Frontier Communications

Frontier Communications has communication facilities along the entire project. Existing facilities will be abandoned in place. New facilities (telephone and fiber optic) will be placed approximately 3 feet inside of the right of way. Work is anticipated to begin April 1, 2014 and take approximately 130 working days to complete. This work will need to be coordinated with highway construction. The contact for Frontier Communications is Brian Van Ooyen, Office (608) 837-1151, Mobile (608) 509-5051.

Windstream/PAETEC

Windstream/PAETEC has communication facilities within the project limits. Windstream will attach to Alliant Energy poles for the entire length of the project with underground crossings at these approximate locations: 94+00, 173+00, 236+00, 253+00, 282+00, 286+50, 326+00, 360+00, 382+50, 429+00, and 458+75. Underground crossings are expected to be placed 36-48 inches below the new grade. Work for Windstream will be coordinated with Alliant Energy. Work is expected to be complete by May 30, 2014. This work will need to be coordinated with highway construction. The contact for Windstream is Jim Kostuch, james.kostuch@windstream.com, Office (262) 792-7938.

25. DELETED

26. Salvaged Asphaltic Pavement Milling, Item 490.0205.

Add the following to the beginning of the article:

Revise standard spec 490.3.1(1) as follows:

Ensure that the stockpile foundation is free of clods, lumps, or stones larger than 1-inch in any dimension.

51. High Recycled HMA Mix E-3, Item SPV.0195.02.

A Description

- (1) This section describes High Recycle HMA mixture design, providing and maintaining a quality management program for High Recycle HMA mixtures, and constructing High Recycle HMA pavement. Unless specifically indicated otherwise, references within this SPV to HMA also applies to High Recycle HMA and High Recycle WMA.

B Materials

B.1 General

- (1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, RAS material if used, RAP material, warm mix asphalt additive or process if used, rejuvenator and asphaltic material.

B.2 Aggregates

B.2.1 General.

- (1) Provide coarse aggregates from a department-approved source as specified under 106.3.4.2. Obtain the engineer's approval of the aggregates before producing HMA mixtures.
- (2) Furnish an aggregate blend consisting of hard durable particles containing no more than a combined total of one percent, by weight, of lumps of clay, loam, shale, soft particles, organic matter, adherent coatings, and other deleterious material. Ensure that the aggregate blend conforms to the percent fractured faces and flat & elongated requirements of table 0195.02-2. If the aggregate blend contains

materials from different deposits or sources, ensure that material from each deposit or source has a LA wear percent loss meeting the requirements of table 0195.02-2.

B.2.2 Freeze-Thaw Soundness

- (1) If the aggregate blend contains materials from different deposits or sources, ensure that material from each deposit or source has a freeze-thaw loss percentage meeting the requirements of table 0195.02-2 and 106.3.4.2.2.

B.2.3 Aggregate Gradation Master Range

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 0195.02-1. The values listed are design limits; production values may exceed those limits.

TABLE 0195.02-1 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] For E-0.3, E-1 and E-3 mix designs, the % minimum VMA is 14.5

^[2] For E-0.3, E-1 and E-3 mix designs, the % minimum VMA is 15.5

- (2) Unless the contract designates otherwise, ensure that the nominal size of the aggregate used in the mixture conforms to C.2 and the following:

PAVEMENT LAYER	NOMINAL SIZE
Lower layer pavement.....	19.0 mm
Upper layer pavement.....	12.5 mm
Stone matrix layer pavement	12.5 mm

B.3 Asphaltic Binders

- (1) The department will designate the grade of asphaltic binder in the contract. The contractor may use virgin binder, modified binder, a blend of virgin binder and binder recovered from recycled asphaltic materials (RAM), or a blend of modified and RAM recovered binder. The blended virgin and recovered binders may contain rejuvenators, added at the manufacturers recommended doses, and recorded in the mix design as described in B.7.

B.4 Additives

B.4.1 Hydrated Lime Antistripping Agent

- (1) If used in HMA mixtures, furnish hydrated lime conforming to ASTM C977 and containing no more than 8 percent unhydrated oxides. Percent added is by weight of the total dry aggregate.

B.4.2 Liquid Antistripping Agent

- (1) If used in HMA mixtures, add liquid antistripping agent to the asphaltic binder before introducing the binder into the mixture. Provide documentation indicating that addition of liquid antistripping agent will not alter the characteristics of the specified asphaltic binder performance grade (PG).

B.4.3 Stone Matrix Asphalt Stabilizer

- (1) Add an organic fiber, an inorganic fiber, a polymer-plastic, a polymer-elastomer, or approved alternate stabilizer to all SMA mixtures. If proposing an alternate, submit the proposed additive system, asphaltic binder, and stabilizer additive, along with samples of the other mixture materials to the department at least 14 days before the project let date. The department will approve or reject that proposed alternate additive system no later than 48 hours before the project let date.
- (2) Use a single additive system for all SMA pavement in the contract.

B.4.4 Warm Mix Asphalt Additive or Process & Rejuvenators

- (1) Use additives or processes from the department's approved products list. Follow supplier or manufacturer recommendations for additives and processes when producing WMA mixtures or mixtures using rejuvenators, and document the amount to be used of such materials in the Mix Design as described in B.7.

B.5 Recycled Asphaltic Materials (RAM)

- (1) The contractor may use recycled asphaltic materials from FRAP, RAP, and RAS in HMA mixtures. Stockpile recycled materials separately from virgin materials and list each as individual JMF components.
- (2) Control recycled materials used in HMA by evaluating the percent binder replacement, the ratio of recycled binder to the total binder. The amount of virgin binder replaced shall conform to the following:

MAXIMUM ALLOWABLE PERCENT BINDER REPLACEMENT

RECYCLED ASPHALTIC MATERIAL	LOWER LAYERS	UPPER LAYER
RAS if used alone	25	20 ^[2]
Any blend of RAM ^[3] (from more than 1 source)	50 ^[1]	40 ^[1,2]

^[1] When used in combination the RAS component cannot exceed 5 percent of the total weight of the aggregate blend.

^[2] For RAS only and any combination RAM with a percent binder replacement greater than 25%, Virgin binder grades used to produce these mixes will be adjusted as follows:

<u>Plan Specified Binder Grade</u>	<u>Supplied Virgin Binder Grade</u>
PG58-28	PG52-34

This virgin binder grade adjustment may be waived if the contractor furnishes test results indicating that the resultant binder meets the grade of the contract originally specified as referenced in B.7

^[3] RAM refers to any blend of recycled materials from more than one source, including FRAP, RAP or RAS and in any combination. It could be from all RAP/FRAP sources, or may include RAS material in addition to one or more sources of RAP.

B.6 Recovered Asphaltic Binders

- (1) Establish the percent of recovered asphaltic binder from FRAP, RAP, and RAS for the mixture design according to AASHTO T164 using the appropriate dust correction procedure. If production test results indicate a change in the percent of recovered asphaltic binder, the contractor or the engineer may request a change in the design recovered asphaltic binder. Provide the department with at least 2 recent extraction samples supporting that change. Ensure that those samples were prepared according to CMM 8-65 by a WisDOT or AMRL qualified laboratory.

B.7 HMA Mixture Design

- (1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to the department's test method number 1559 as described in CMM 8-66 and conforming to the requirements of table 0195.02-1 and table 0195.02-2. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to the department's test method number 1559.

- (2) For each HMA mixture type used under the contract, asphalt mixture performance testing, recovered binder testing, and data analysis is required as follows:
- a. Hamburg Wheel Tracking in accordance to AASHTO T 324 and meeting the requirements in the included attached procedure.
 - b. DCT in accordance with ASTM D7313 and meeting the requirements in the included, attached procedure.
 - c. Semi-Circular Bend (SCB) Intermediate Temperature Testing in accordance with AASHTO TP 105-7 (modified per Louisiana DOT) meeting the following requirements:
 1. Long term conditioning of the mix as described in AASHTO R30
 2. Perform the test at 25C.
 - d. The blend of virgin and RAM extracted and recovered resultant binder shall meet the following requirements:
 - a. Mixture sample will be compacted in 115 mm high specimens will be made to target 6.5% air voids, with all specimens within +/-0.5%.
 - b. Long term conditioning of the specimens as described in AASHTO R30
 - c. Extract, test and report the true, continuous PG grade for high, intermediate and low temperature values per AASHTO R29 without RTFOT or PAV aging.
 - d. Meet the contract specified low temperature binder grade per AASHTO M320
 - e. The difference between the s-critical temperature (ScT) and m-critical temperature (McT) values is less than 5C.
 - f. Ensure that the resultant asphalt binder conforms to the contract specifications
 - e. Contractor will provide at least 8 (4 at 61mm and 4 at 115mm at 6.5% \pm 0.5% Va) pucks to the Department Bureau of Technical Services for verification of Hamburg, DCT and SCB. Also provide 25 pound samples of each aggregate and RAM material to the department for verification of mix design values. Only 5 pounds of RAS will need to be submitted to the department.

TABLE 0195.02-2 MIXTURE REQUIREMENTS

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
ESALs x 10 ⁶ (20 yr design life)	< 0.3	0.3 - < 1	1 - < 3	3 - < 10	10 - < 30	>= 30	—
LA Wear (AASHTO T96)							
100 revolutions(max % loss)	13	13	13	13	13	13	13
500 revolutions(max % loss)	50	50	45	45	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18	18	18	18
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	60 / —	65 / —	75 / 60	85 / 80	98 / 90	100/100	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	40	43	45	45	45	45
Sand Equivalency (AASHTO T176, min)	40	40	40	45	45	50	50
Gyratory Compaction							
Gyrations for N _{ini}	6	7	7	8	8	9	8
Gyrations for N _{des}	40	60	75	100	100	125	65
Gyrations for N _{max}	60	75	115	160	160	205	160
Air Voids, %V _a (%G _{mm} N _{des})	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)	3.5 (96.5)
% G _{mm} N _{ini}	<= 91.5 ^[1]	<= 90.5 ^[1]	<= 89.0 ^[1]	<= 89.0	<= 89.0	<= 89.0	—
% G _{mm} N _{max}	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	—
Dust to Binder Ratio (% passing 0.075/P _{be})	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	0.6 - 1.6	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 ^{[4] [5]}	65 - 78 ^[4]	65 - 75 ^{[3][4]}	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	65 - 75 ^{[3] [4]}	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Draindown at Production Temperature (%)	—	—	—	—	—	—	0.30

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

^[3] For 9.5mm and 12.5mm nominal maximum size mixtures, the specified VFB range is 70 - 76%.

^[4] For 37.5mm nominal maximum size mixes, the specified VFB lower limit is 67%.

^[5] For 25.0mm nominal maximum size mixes, the specified VFB lower limit is 67%.

B.8 Quality Management Program

B.8.1 General

- (1) Provide and maintain a QC program defined as all activities, including mix design, process control inspection, sampling and testing, and process adjustments related to producing and placing HMA pavement conforming to the specifications. The contractor may also provide an optional CA program.
- (2) The department will provide product quality verification as follows:
 1. By conducting verification testing of independent samples.
 2. By periodically observing contractor sampling and testing.
 3. By monitoring required control charts exhibiting test results and control parameters.
 4. By the engineer directing the contractor to take additional samples at any time during production.
- (3) Refer to CMM 8-36 for detailed guidance on sampling, testing, and documentation under the QMP.

B.8.2 Recycled Asphalt Material (RAM) Stockpile Production

- (1) Contractor will provide a High Recycle Production Quality Control Plan to the engineer outlining RAM component stockpile monitoring, sampling and testing.
- (2) The Quality Control Plan must list the lab extracted AC correction factor if applicable.

B.8.2.1 Recycled Asphalt Shingle (RAS) Stockpile Production

- (1) Test RAS material once every 250 tons during stockpile production using the procedures defined in CMM 8-36. If using an existing stockpile, test the stockpile using HTCP approved procedures, with at least 1 test per 250 tons of material in the stockpile. At least 80% of the individual tests must meet the following requirements, with a minimum of 5 tests during stockpile production and/or existing stockpile.
 - 100% of the material must pass the 3/8" sieve
 - 93 % of the material must pass the #4 sieve
 - Deleterious material must be less than 1% of the R4 material, by weight
 - P200 material must be within 2.0% of the stockpile average
 - Asphalt Content must be within 2.0% of the stockpile average
 - A split sample of each production test will be retained as per CMM 8-36, retaining samples for 14 days.
 - A DOT employed HTCP Certified Sampling Technician will need to be notified during stockpile production to obtain at least one independent sample.

B.8.2.2 Recycled Asphalt Pavement (RAP/FRAP) Stockpile Production

- (1) Test RAP/FRAP material once every 2,000 tons during stockpile production using the procedure in CMM 8-36 up to 5 tests. If using an existing stockpile, test the stockpile using HTCP approved procedures, with at least 1 test per 2000 tons of material in the stockpile. Once 5 tests are obtained, test every 4,000 tons, with a minimum of one test per day during stockpile production. A minimum of 5 tests are needed during stockpile production. At least 80% of the individual tests must meet the following requirements, with a minimum of 5 tests during stockpile production. P200 material must be within 2.0% of the stockpile average
 - Asphalt Content must be within 0.75% of the stockpile average
 - A split sample of each production test will be retained as per CMM 8-36, retaining samples for 14 days.
 - A DOT employed HTCP Certified Sampling Technician will need to be notified during stockpile production to obtain at least one independent sample.

B.8.3 Contractor Testing

B.8.3.1 Required Quality Control Program

B.8.3.1.1 Personnel Requirements

- (1) Provide HTCP certified sampling and testing personnel. Provide at least one full-time HMA technician certified at a level appropriate for sampling and production control testing at each plant site furnishing

material to the project. Before mixture production begins, provide an organizational chart in the contractor's laboratory. Include the names, telephone numbers, and current certifications of all personnel with QC or CA responsibilities. Keep the chart updated.

- (2) Ensure that sampling and testing personnel are minimally qualified as follows ^[1]:

- HMA technician certified at a level appropriate for sampling and production control testing.
- HMA ACT^[2].

^[1] After informing the engineer, a non-certified person under the direct observation of a certified HMA technician may sample for a period not to exceed 3 calendar days.

^[2] A certified HMA technician must coordinate and take responsibility for the work an ACT performs. No more than one ACT can work under a single certified technician.

- (3) Have a certified HMA technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data.
- (4) Have an HMA technician certified at a level appropriate for process control and troubleshooting or mix design available to make necessary process adjustments.

B.8.3.1.2 Laboratory Requirements

- (1) Conduct QC testing in a facility conforming to the department's laboratory qualification program.
- (2) Ensure that the laboratory has at least 320 square feet of workspace and has a telephone for exclusive use by QMP personnel. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods.

B.8.3.1.3 Required Sampling and Testing

B.8.3.1.3.1 Contractor Mixture Volumetric Testing QC

- (1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.
- (2) Obtain random samples and perform tests according to CMM 8-36. Obtain HMA mixture samples from trucks at the plant. Perform tests the same day taking the sample. Mixture will be produced the same day as placement, the material is not allowed to be produced and stored in a silo overnight and/or a period of greater than 5 hours.
- (3) Retain the split portion of the contractor HMA mixture and blended aggregate samples for 14 calendar days at the laboratory site in a dry, protected area. The engineer may decrease this 14-day retention period. At project completion the contractor may dispose of remaining samples if the engineer approves.
- (4) Use the test methods identified below, or other methods the engineer approves, to perform the following tests at a frequency greater than or equal to that indicated:

Blended aggregate gradations:

Drum plants:

- Field extraction by department test method number 1560.
- Belt samples, optional for virgin mixtures, obtained from stopped belt or from the belt discharge using an engineer-approved sampling device and performed according to AASHTO T11 and T27.

Batch plants:

- Field extraction by department test method number 1560.

Asphalt content (AC) in percent:

AC by calculated inventory & recycled content. (Note: current procedure)

Extracted AC Content per day (Ignition, Centrifuge, Reflux or Vacuum)

- Randomly select one sample per day from the random QC lot
- Document method used and any correction factors used.
- Department and contractor testing must be within 0.3% after applying the correction factor(s) indicated in the Quality Plan.

Bulk specific gravity of the compacted mixture according to AASHTO T166.

Maximum specific gravity according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

- (5) Test each design mixture at a frequency at or above the following:

TOTAL DAILY PLANT PRODUCTION
FOR DEPARTMENT CONTRACTS

in tons

50 to 600

601 to 1500

1501 to 2700

2701 to 4200

greater than 4200

SAMPLES
PER DAY^[1]

1

2

3

4

see footnote^[2]

^[1]Frequencies are for planned production. If production is other than planned, conform to CMM 8-36.

^[2]Add a random sample for each additional 1500 tons or fraction of 1500 tons.

B.8.3.1.3.2 Contractor Mixture Performance Testing QC

- (1) Mixture production shall be sampled within the first 600 tons on the first day of production and the following performance testing will be conducted:

- Hamburg Wheel Tracking as identified in B.7 HMA Mix Design
- Stripping Inflection Point (SIP) analysis as identified in B.7 HMA Mix Design
- DCT as identified in B.7 HMA Mix Design
- Semi Circular Bend (SCB) as identified in B.7 HMA Mix Design
- Mixture resultant binder PG as identified in B.7 HMA Mix Design

- (2) A DOT employed HTCP Certified Sampling Technician will obtain a (250) lbs. sample of the HMA mixture to conduct QV mixture performance testing. The startup testing will be conducted as a split test, with both the Contractor and the state each running the above described tests on samples obtained at the same time.

- (3) Mixture production shall be sampled randomly once every 10,000 tons produced and the following performance testing will be conducted:

- Hamburg Wheel Tracking as identified in B.7 HMA Mix Design and modified by WisDOT
- Stripping Inflection Point (SIP) analysis as identified in B.7 HMA Mix Design
- DCT as identified in B.7 HMA Mix Design and modified by WisDOT
- Semi Circular Bend (SCB) as identified in B.7 HMA Mix Design
- Mixture resultant binder PG grading as identified in B.7 HMA Mix Design

- (4) A DOT employed HTCP Certified Sampling Technician will obtain a (250) lbs. sample of the HMA mixture to conduct QV mixture performance testing. The department QV test sample will come from a separate, random sample, obtained once for each 10,000 Ton increments during production. The testing at startup does not qualify as the random sample for the first 10,000 ton increment.

- (5) If any above QC test is in non-conformance, stop production and contact the Bureau of Technical Services immediately to determine a course of corrective action.

B.8.3.1.4 Documentation

B.8.3.1.4.1 Records

- (1) Document all observations, inspection records, mixture adjustments, and test results daily. Note observations and inspection records in a permanent field record as they occur. Record all process adjustments and JMF changes. Submit copies of the running average calculation sheets for blended aggregate, mixture properties, and asphalt content along with mixture adjustment records to the engineer each day. Submit testing records and control charts to the engineer in a neat and orderly manner within 10 days after paving is completed.

- (2) Continue charts, records, and testing frequencies, for a mixture produced at one plant site, from contract to contract.

B.8.3.1.4.2 Control Charts

- (1) Maintain standardized control charts at the laboratory. Record contractor test results on the charts the same day as testing. Post CA test results on the charts as data becomes available. Record data on the standardized control charts as follows:
- Blended aggregate gradation tests in percent passing. Of the following, plot those sieves the design specifications require: 37.5-mm, 25.0-mm, 19.0-mm, 12.5-mm, 9.5-mm, 2.36-mm, and 75- μ m.
 - Asphalt material content in percent (calculated inventory & recycled content)
 - Asphalt material content in percent (extraction)
 - Air voids in percent.
 - VMA in percent.
 - Dust to Binder Ratio (Calculated using Extracted asphalt content (Pbe))
- (2) Plot both the individual test point and the running average of the last 4 data points on each chart. Show QC data in black with the running average in red and CA data in blue. Draw the warning limits with a dashed green line and the JMF limits with a dashed red line. The contractor may use computer generated black-and-white printouts with a legend that clearly identifies the specified color coded components.

B.8.3.1.5 Control Limits

- (1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75- μ m	+/- 2.0	+/- 1.5
Asphaltic content in percent (extraction)	-0.4	-0.3
Air voids in percent	+/- 1.3	+/- 1.0
VMA in percent ^[1]	- 0.5	- 0.2
Dust/Binder Ratio (%Pbe)	1.6 (maximum)	

^[1] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in [Table 0195.02-1](#).

- (2) Warning bands are defined as the area between the JMF limits and the warning limits.

B.8.3.1.6 Job Mix Formula Adjustment

- (1) The contractor may request adjustment of the JMF according to the department's test method number 1559. Have an HTCP HMA technician certified at a level appropriate for process control and troubleshooting or mix design submit a written JMF adjustment request. Ensure that the resulting JMF is within specified master gradation bands. The department will have an HMA technician certified at level III review the proposed adjustment and, if acceptable, issue a revised JMF. The department will not allow adjustments exceeding the specified JMF tolerance limits. Additionally, if a JMF change is wanted for the asphalt content the VMA running average value is required to meet or exceed the minimum VMA design requirement for the mixture produced as defined in table 0195.02-1. Have an HMA technician certified at level II make related process adjustments.
- (2) If mixture redesign is necessary, submit a new JMF, subject to the same specification requirements as the original JMF.

B.8.3.1.7 Corrective Action

- (1) When running average values trend toward the warning limits, consider taking corrective action. Document all corrective actions undertaken. Include all test results in the contract files and in running average calculations.
- (2) Notify the engineer if running average values exceed the warning limits. If two consecutive running average values exceed the warning limits, stop production and make adjustments. Do not restart production until after notifying the engineer of the adjustments made. Do not calculate a new running average until the fourth test after the required production stop. Notify the Bureau of Technical Services, Materials Lab if the Dust to Binder Ratio exceeds 1.6 on any test to determine corrective action. Stop production until a solution is agreed upon.
- (3) If the process adjustment improves the property in question so that the running average after 4 additional tests is within the warning limits, the contractor may continue production with no reduction in payment.
- (4) If the adjustment does not improve the properties and the running average after 4 additional tests stays inside the warning bands, the mixture is nonconforming and subject to pay adjustment.
- (5) If the contractor fails to stop production and make adjustments when required, all mixture produced from the stop point to the point when the running average is back inside the warning limits is nonconforming and subject to pay adjustment.
- (6) The department will reduce payment for nonconforming QMP HMA mixtures, starting from the stop point to the point when the running average is back inside the warning limits, as follows:

PAYMENT FOR MIXTURE^{[1] [2]}

ITEM	PRODUCED WITHIN WARNING BANDS	PRODUCED OUTSIDE JMF LIMITS
Gradation	90%	75%
Asphalt Content (Binder Inventory)	85%	75%
Air Voids	70%	50%
VMA	90%	75%

^[1] For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.

^[2] Payment is in percent of the contract unit price for the bid items. The department will reduce pay based on the nonconforming property with lowest percent pay. The asphaltic material quantity is based on the JMF asphalt content. The department will administer pay reduction under the Nonconforming QMP Asphaltic Material and the Nonconforming QMP HMA Mixture administrative items.

- (7) If the running average values exceed the JMF limits, stop production and make adjustments. Do not restart production until after notifying the engineer of the adjustments made. Continue calculating the running average after the production stop.
- (8) If the air voids running average of 4 exceeds the JMF limits, the material is nonconforming. Remove and replace unacceptable material at no additional expense to the department. The engineer will determine the quantity of material to replace based on the testing data using the methods in CMM 8-36 and an inspection of the completed pavement. If the engineer allows the mixture to remain in place, the department will pay for the mixture and asphaltic material at 50 percent of the contract price.
- (9) If the running average of 4 exceeds the JMF limits for other properties, the department will pay 75 percent of the contract price for mixture and asphaltic material if the engineer allows the mixture to remain in place. The engineer will determine the quantity of material subject to pay reduction based on the testing data and an inspection of the completed pavement.

B.8.3.2 Optional Contractor Assurance

B.8.3.2.1 General

- (1) CA testing is optional and is conducted to further validate production testing. The contractor may offer CA data to provide an additional piece of information for the following:
 1. Process control decisions.

2. Troubleshooting possible sampling, splitting, or equipment problems.
3. Limiting liability, as defined in CMM 8-36, for nonconforming product as a result of department verification testing. These provisions do not supersede department's rights under 107.16.

B.8.3.2.2 Personnel Requirements

- (1) Ensure that an HMA technician certified under HTCP at a level appropriate for mixture production control testing performs all CA testing and data analysis. Personnel performing CA testing cannot perform QC testing for the same materials.

B.8.3.2.3 Laboratory Requirements

- (1) Conduct CA testing in a facility conforming to the department's laboratory qualification program. Furnish and maintain a laboratory fully equipped for performing selected CA tests. If the a single laboratory is providing CA and QC data for the same materials, ensure that a separate set of equipment is used to prepare CA samples and run CA tests.

B.8.3.2.4 Testing

- (1) For the CA program, use the test methods enumerated here in B.8.3.2.4, other engineer-approved methods, or other methods the industry and department HMA technical team recognizes. The contractor may select tests at its option. If using tests in limiting liability, as provided in CMM 8-36, data must exist for the property in question.
- (2) Perform selected testing as follows:
 - Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T166 based on the average of 2 specimens.
 - Maximum specific gravity (Gmm) according to AASHTO T209.
 - Air voids (Va) by calculation according to AASHTO T269.
 - VMA by calculation according to AASHTO R35.
- (3) There is no specified frequency for CA testing.
- (4) The department will compare CA samples to QC samples. Obtain CA samples by retaining a QC split portion conforming to the "rule of retained" requirements, as provided in CMM 8-36. Alternatively the contractor may have CA personnel take an additional sample during production.

B.8.3.2.5 Documentation

- (1) Report CA test results to the engineer and the contractor's field staff within 2 business days after receiving the samples.

B.8.3.2.6 Allowable Differences

- (1) Differences between the QC and CA split sample test results are acceptable in limiting liability, as provided in CMM 8-36, if within the following limits:

ITEM	ALLOWABLE DIFFERENCES
Percent passing 12.5 mm sieve	6.0
Percent passing 9.5 mm sieve	6.0
Percent passing 4.75 mm sieve	5.0
Percent passing 2.36 mm sieve	4.0
Percent passing 600-µm sieve	3.5
Percent passing 75-µm sieve	2.0
Bulk specific gravity of the compacted mixture	0.030
Maximum specific gravity	0.020

B.8.4 Department Testing

B.8.4.1 Quality Verification Program

B.8.4.1.1 General

- (1) The engineer will conduct QV tests to determine the quality of the final product and measure characteristics that predict relative performance.

B.8.4.1.2 Personnel Requirements

- (1) The department will provide at least one HMA technician, certified under HTCP at a level appropriate for sampling and mixture production control testing, to observe QV sampling of project mixtures.
- (2) An HMA technician certified at a level appropriate for sampling and mixture production control testing, or an HMA ACT working under the HMA certified technician, will split samples and do the testing. An HMA technician certified at a level appropriate for sampling and mixture production control testing must coordinate and take responsibility for the work an ACT performs. No more than one ACT can work under a single certified technician.
- (3) An HMA technician certified at a level appropriate for sampling and mixture production control testing will ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data.
- (4) The department will make an organizational chart available at the testing laboratory and to the contractor before mixture production begins. The department's chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

B.8.4.1.3 Laboratory Requirements

- (1) The department will furnish and maintain a facility for QV testing conforming to the department's laboratory qualification program requirements and fully equipped to perform QV testing. In all cases, the department will conduct testing in a separate laboratory from the contractor's laboratory.

B.8.4.1.4 Department Verification Testing Requirements

B.8.4.1.4.1 Department Volumetric Verification Testing Requirements

- (1) HTCP certified department personnel will obtain random samples by directly supervising HTCP certified contractor personnel sampling from trucks at the plant. The department will sample according to CMM 8-36. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution. The engineer will split the sample for testing and retain the remaining portion for additional testing if needed.
- (2) The department will verify product quality using the test methods enumerated here in B.8.4.1.4(2), other engineer-approved methods, or other methods the industry and department HMA technical team recognizes. The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.
- (3) The department will perform all testing conforming to the following standards:
 - Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.
 - Maximum specific gravity (G_{mm}) according to AASHTO T209.
 - Air voids (V_a) by calculation according to AASHTO T269.
 - VMA by calculation according to AASHTO R35.

- (4) The department will randomly test each design mixture at the following minimum frequency:
FOR TONNAGES TOTALING:
Less than 501 tons no tests required
From 501 to 5,000 tons..... one test
More than 5,000 tons..... add one test for each additional 5,000-ton increment

B.8.4.1.4.2 Department (Bureau of Technical Services) Verification Performance Testing Requirements

- (1) HTCP certified department personnel will obtain random samples by directly supervising HTCP certified contractor personnel sampling from trucks at the plant. Retain (250) lbs. of mixture for the engineer to conduct QV mixture performance testing. The startup testing will be conducted as a split test, with both the Contractor and the state each running the performance tests described below on samples obtained at the same time.
- (2) Mixture production shall be sampled randomly once every 10,000 tons produced and the following performance testing will be conducted:

- Hamburg Wheel Tracking as identified in B.7 HMA Mix Design and modified by WisDOT
 - Stripping Inflection Point (SIP) analysis as identified in B.7 HMA Mix Design
 - DCT as identified in B.7 HMA Mix Design and modified by WisDOT
 - Semi Circular Bend (SCB) as identified in B.7 HMA Mix Design
 - Mixture resultant binder PG grading as identified in B.7 HMA Mix Design
- (3) The testing at startup does not qualify as the random sample for the first 10,000 ton increment.
- (4) The department also perform volumetric testing conforming to the following standards:
 Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.
 Maximum specific gravity (G_{mm}) according to AASHTO T209.
 Air voids (V_a) by calculation according to AASHTO T269.
 VMA by calculation according to AASHTO R35.
- (5) If any of the QV tests are in non-conformance, the Bureau of Technical Services will notify the contractor and stop production and determine a course of corrective action.

B.8.4.1.5 Documentation

- (1) The engineer will document all observations during QV sampling, and review QC mixture adjustments and QC/CA test results daily. The engineer will note results of observations and inspection records in a permanent field record as they occur.

B.8.4.1.6 Acceptable Verification Parameters

- (1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:
- V_a is within a range of 2.2 to 4.8 percent.
 - VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.
- (2) If QV test results are outside the specified limits, the engineer will investigate immediately through dispute resolution procedures. The engineer may stop production while the investigation is in progress if the potential for a pavement failure is present.
- (3) If production continues for that mixture design, the engineer will provide additional retained sample testing at the frequency provided for in CMM 8-36. This supplemental testing will continue until the material meets allowable differences or as the engineer and contractor mutually agree.

B.8.4.1.7 Dispute Resolution

- (1) When QV test results do not meet the specified limits, the bureau's AASHTO accredited laboratory and certified personnel will referee test the retained portion of the QV sample and the retained portion of the nearest available previous QC sample.
- (2) The department will notify the contractor of the referee test results within 3 business days after receipt of the samples.
- (3) The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture project data, and inspecting the completed pavement all according to CMM 8-36.

B.8.4.1.8 Corrective Action

- (1) Remove and replace unacceptable material at no additional expense to the department.
- (2) The department will reduce pay for the tonnage of nonconforming mixture, as determined during QV dispute resolution, if the engineer allows that mixture to remain in place. If production of that mixture design continued during the investigation, the department will also adjust pay for that mixture forward to the next conforming QV or QC/CA point. The department will pay for the affected mixture at 50 percent of the contract price. The department will adjust pay for both the mixture and the asphaltic material.

B.8.4.2 Independent Assurance Testing

- (1) The department will evaluate both the contractor and department testing personnel and equipment as specified in 106.3.4.3.4.

C Construction

C.1 General

- (1) Construct HMA pavement conforming to the general provisions of 450.3.

C.2 Thickness

- (1) Provide the plan thickness for lower and upper layers limited as follows:

NOMINAL SIZE	MINIMUM LAYER THICKNESS	MAXIMUM LOWER LAYER THICKNESS	MAXIMUM UPPER LAYER THICKNESS	MAXIMUM SINGLE LAYER THICKNESS ^[3]
	in inches	in inches	in inches	in inches
37.5 mm	3.5	5	4.5	6
25.0 mm	3.25	5	4	6
19.0 mm	2.25	4	3	5
12.5 mm ^[1]	1.75	3 ^[2]	2.5	4
9.5 mm ^[1]	1.5	3 ^[2]	2	3

^[1] SMA mixtures use nominal size 12.5 mm or 9.5 mm.

^[2] SMA mixtures with nominal sizes of 12.5 mm and 9.5 mm have no maximum lower layer thickness specified.

^[3] For use on cross-overs and shoulders.

C.3 HMA Pavement Density Maximum Density Method

C.3.1 Minimum Required Density

- (1) Compact all layers of HMA mixture to the density table 0195.02-3 shows for the applicable mixture, location, and layer.

TABLE 0195.02-3 MINIMUM REQUIRED DENSITY^[1]

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		E-0.3, E-1, and E-3	E-10, E-30, and E-30x	SMA ^[5]
TRAFFIC LANES ^[2]	LOWER	91.5 ^[3]	92.0 ^[4]	_____
	UPPER	91.5	92.0	_____
SIDE ROADS, CROSSOVERS, TURN LANES, & RAMPS	LOWER	91.5 ^[3]	92.0 ^[4]	_____
	UPPER	91.5	92.0	_____
SHOULDER & APPURTENANCES	LOWER	89.5	89.5	_____
	UPPER	90.5	90.5	_____

^[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

^[2] Includes parking lanes as determined by the engineer.

^[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

^[4] Minimum reduced by 1.0 percent for lower a layer constructed directly on crushed aggregate or recycled base courses.

^[5] The minimum required densities for SMA mixtures are specified in the contract special provisions.

C.3.2 Pavement Density Determination

- (1) The engineer will determine the target maximum density using department procedures described in CMM 8-15. The engineer will measure pavement density for either nuclear density or the density of sawed or cored samples. The engineer and contractor will decide which method to use before paving. A change to the method requires agreement between the engineer, contractor, and the department's quality management section. The engineer will determine density as soon as it is practical after

compaction and before placement of subsequent layers or before opening to traffic. Cut pavement samples as the engineer directs and restore the surface with new, well compacted mixture.

- (2) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.
- (3) A lot is defined in CMM 8-15 and placed within a single layer for each location and target maximum density category indicated in table 0195.02-3.
- (4) For nuclear density, the department will test 5 random samples on each lot. For the density of sawed or cored samples, the department will test 3 random samples, each with an area of at least 28 square inches, from each lot. The lot density is the average of all samples taken for that lot. The number of nuclear density tests required for legs of side roads at intersections, crossovers, turn lanes, and ramps with less than 750 tons per layer are specified in CMM 8-15.
- (5) A certified nuclear density technician, or an nuclear density ACT working under a certified nuclear density technician, will locate samples and do the testing. A certified nuclear density technician certified must coordinate and take responsibility for the work an ACT performs. No more than one ACT can work under a single certified technician. The responsible certified technician will ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly.

C.3.3 Waiving Density Testing

- (1) The engineer may waive density testing for one or more of the following reasons:
 1. It is not practical to determine density by the lot system.
 2. The contract contains less than 750 tons of a given mixture type placed within the same layer and target maximum density category.
- (2) If the department waives density testing notify the contractor before paving. The department will accept the mixture by the ordinary compaction procedure as specified in 450.3.2.6.2.
- (3) If HMA QC testing is waived under B.8.2.1.3.3, density testing is also waived.

D Measurement

- (1) The department will measure the HMA Pavement bid items acceptably completed by the ton as specified in 450.4.

E Payment

E.1 General

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

SPV.0195.02

High Recycled HMA Mix E-3

TON

E.2 HMA Pavement

E.2.1 General

- (1) The department will pay for the HMA Pavement bid items at the contract unit price subject to one or more of the following adjustments:
 1. Disincentive for density of HMA pavement as specified in C.2.2.
 2. Incentive for density of HMA pavement as specified in or C.2.3.
 3. Reduced payment for nonconforming smoothness as specified in 450.3.2.9.
 4. Reduced payment for nonconforming QMP HMA mixtures as specified in B.8.2.1.7.
- (2) Payment for HMA Pavement Type E-0.3, E-1, E-3, E-10, E-30, and E-30x is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for QMP testing and aggregate source testing; for PG graded binder, for asphalt binder from recycled sources, and for warm mix asphalt additives or processes.
- (3) Payment for HMA Pavement Type SMA, is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting the mixture; for QMP testing and aggregate source testing; and for all materials including asphaltic materials and

warm mix asphalt additives and processes; for stabilizer, hydrated lime, and liquid antistripping agent if required.

- (4) If provided for in the plan quantities, the department will pay for a leveling layer, placed to correct irregularities in an existing paved surface before overlaying, under the pertinent paving bid item. Absent a plan quantity, the department will pay for a leveling layer as extra work.
- (5) Except for SMA mixes, hydrated lime or liquid antistripping agent, when required, is included in the contract price for the asphaltic material.
- (6) If the department waives density testing under C.3.3, the department will not adjust pay under either C.2.2 or C.2.3.
- (7) Restore the surface after cutting density samples as specified in C.3.2(1) at no additional cost to the department.

E.2.2 Disincentive for HMA Pavement Density

- (1) The department will administer density disincentives under the Disincentive Density HMA Pavement and the Disincentive Density Asphaltic Material administrative items. If the lot density is less than the specified minimum in table 0195.02-3, the department will reduce pay based on the contract unit price:

DISINCENTIVE PAY REDUCTION FOR HMA PAVEMENT DENSITY	
PERCENT LOT DENSITY BELOW SPECIFIED MINIMUM	PAYMENT FACTOR (percent of contract price)
From 0.5 to 1.0 inclusive	98
From 1.1 to 1.5 inclusive	95
From 1.6 to 2.0 inclusive	91
From 2.1 to 2.5 inclusive	85
From 2.6 to 3.0 inclusive	70
More than 3.0 ^[1]	----

^[1] Remove and replace the lot with a mixture at the specified density. When acceptably replaced, the department will pay for the replaced work at the contract unit price. Alternatively the engineer may allow the nonconforming material to remain in place with a 50 percent payment factor.

- (2) If the engineer directs placing HMA mixtures between October 15 and May 1 for department convenience as specified in 450.3.2.1(5), the department will not assess a density disincentive on pavement the department orders the contractor to place when the temperature, as defined in 450.3.2.1(2), is less than 36 F.

E.2.3 Incentive for HMA Pavement Density

- (1) If the lot density is greater than the minimum specified in table 0195.02-3 and all individual air voids test results for that mixture placed during the same day are within +1.0 percent or -0.5 percent of the design target in table 0195.02-2, the department will adjust pay for that lot as follows:

INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY	
PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM	PAY ADJUSTMENT PER TON ^[1]
From -0.4 to 1.0 inclusive	\$0
From 1.1 to 1.8 inclusive	\$0.40
More than 1.8	\$0.80

^[1] The department will prorate the pay adjustment for a partial lot.

- (2) The department will adjust pay under the Incentive Density HMA Pavement bid item. Adjustment under this item is not limited, either up or down, to the bid amount the schedule of items shows.
- (3) The department will restrict incentive payment for shoulders paved integrally with the traffic lane, if the traffic lane does not meet incentive requirements, the department will not pay incentive on the integrally paved

52. WisDOT Modified Test Procedure – AASHTO T 324-11

Standard Test Method for Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)

All changes to the above referenced AASHTO procedure are noted below:

6. Specimen Preparation

6.2 Laboratory Produced HMA

6.2.4 Replace 6.2.4 with the following:

All samples created in the lab, including mix design and production, shall follow AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt, for long term aging.

6.4 Field-Produced HMA – Field Compacted (Core/Slab Specimen)

6.4.1 Replace the second sentence of 6.4.1 with the following:

Cutting Field Cores or Field Slab Specimen – Cores shall be sampled from the pavement at the same offset using a 6 inch inner diameter core bit. Sample two cores for Hamburg. If no Gmm is available to determine density, sample two additional cores and test according to ASTM D2726.

7. Determining Air Void Content

7.3 Replace 7.3 with the following:

Determine the air void content of the specimens in accordance with T 269. The specimen shall be compacted using a gyratory compactor to $6.5\% \pm 0.5$ Air Voids for a 3.5% JMF Mix Design, and $7.0\% \pm 0.5$ Air Voids for a 4.0% JMF Mix Design.

8. Procedure

8.2 Replace the second sentence of 8.2 with the following:

SGC Cylindrical and Field Core Specimen Mounting – Insert the cut specimens into the high-density polyethylene molds with the non-sawed surface up.

8.6.1 Replace 8.6.1 with the following:

Test temperature is 50°C.

9. Calculations

9.3 Add section 9.3.

9.3.1 Stripping Inflection Point (SIP) – SIP must be less than 2.

9.3.2 Number of Passes and Maximum Rut Depth – The test shall be conducted for the plan specified Binder Grade.

Asphalt Binder Grade	Number of Passes	Maximum Rut Depth (inches)
PG 76-XX	20,000	0.50
PG 70-XX	15,000	0.50
PG 64-XX	10,000	0.50
PG 58-XX	5,000	0.50

53. WisDOT Modified Test Procedure – ASTM D 7313-07

Standard Test Method for Determining Fracture Energy of Asphalt-Aggregate Mixtures
Using the Disk-Shaped Compact Tension Geometry

All changes to the above referenced ASTM procedure are noted below.

4. Significance and Use

4.1 *Replace the second sentence with following:*

The test method is valid for specimens that are tested at $-10^{\circ}\text{C} \pm 0.5^{\circ}\text{C}$ warmer than the WisDOT plan specified lower temperature grade. A passing sample (see section 8.4) is also acceptable for all warmer temperature grades (i.e. a sample that passes at -18°C is also acceptable at -12°C)

Plan Grade	DCT Testing Temperature
PG XX-22	-12°C
PG XX-28	-18°C
PG XX-34	-24°C

New Paragraph:

Two specimens are required for a valid test. The average of the two specimens will determine if the material is acceptable.

6. Test Specimens

6.1 *Replace 6.1 with the following:*

6.1.1 *Mix Design Material Specimen Preparation* - All samples created for Mix Design shall follow AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt, for long term aging. Samples shall be compacted using a gyratory compactor to $6.5\% \pm 0.5$ Air Voids for a 3.5% JMF Mix Design, and $7.0\% \pm 0.5$ Air Voids for a 4.0% JMF Mix Design. Two DCT samples shall be cut from the same gyratory specimen. Test specimen shall have a saw cut on both faces.

6.1.2 *Production Material Specimen Preparation* - All samples created from production material shall follow AASHTO R30, Standard Practice for Mixture Conditioning of Hot Mix Asphalt, for long term aging. Samples shall be compacted using a gyratory compactor to $6.5\% \pm 0.5$ Air Voids. Two DCT samples shall be cut from the same gyratory specimen. Test specimen shall have a saw cut on both faces.

6.1.3. *Core Specimen Preparation* - Cores shall be sampled from the pavement at the same offset using a 6 inch inner diameter core bit. Sample two cores for DCT. If no Gmm is available to determine density, sample two additional cores and test according to ASTM D2726. If a core is greater than 50mm thick, cut excess thickness from the top and bottom of the core. If there is only enough room to cut from one edge, cut from the top of the core.

7. Procedure

7.1 *Replace 7.1 with the following:*

7.1 *Conditioning* - The specimens shall be placed in a standard freezer for a minimum of 8 hours and a maximum of 12 hours at $-12^{\circ}\text{C} \pm 5^{\circ}\text{C}$. After the initial conditioning, the specimen shall be placed into the DCT chamber for 1.5 hours ± 0.5 hours at the standard testing temperature.

8. Interpretation of Fracture Energy

8.4 *Add paragraph 8.4:*

8.4 *Target* – The required minimum for acceptance is 400 J/m^2 .

10. Precision and Bias

10.1 *Replace 10.1 with the following:*

10.1 *Precision* – The within-laboratory repeatability standard deviation is 78.5 J/m^2 . If the two test specimens are out of the 78.5 J/m^2 tolerance, run two more test specimens and throw out the highest and lowest, averaging the middle two.

54. Standard Method of Test for Evaluation of Asphalt Mixture Crack Propagation using the Semi-Circular Bend Test (SCB)

1. Scope

- 1.1. This test method covers procedures for the preparation, testing, and measurement of fracture failure of semi-circular asphalt mixtures of specimens loaded monotonically.
- 1.2. This standard may involve hazardous material, operations, and equipment. This standard does not purport to address all safety problems associated with its use. It is the responsibility of the user of this procedure to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1. AASHTO Standards

- PP 2, Practice for Mixture conditioning of Hot Mix Asphalt (HMA)
- T 67, Standard Practices for Load Verification of Testing Machines
- T 166, Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens
- T 168, Sampling Bituminous Paving Mixtures
- T 209, Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt (HMA)
- T 269, Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
- T 312, Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor

3. Summary of Test Method

- 3.1. A semi-circular specimen is loaded monotonically until fracture failure. The load and deformation are continuously recorded and the critical strain energy rate, J_C , is determined.

4. Significance and Use

- 4.1. The critical strain energy rate is used to compare the fracture properties of asphalt mixtures with different binder types.
- 4.2. This fundamental engineering property can be used as a performance indicator of fracture resistance based on fracture mechanics, the critical strain energy release rate, also known as J_C value.

5. Apparatus

- 5.1. Load Test System - A load test system consisting of a testing machine, environmental chamber, and data acquisition system. The test system shall meet the minimum requirements specified below.
- 5.2. Testing Machine - The testing machine should be a closed loop system capable of applying a 4.5kN load monotonically under a constant cross-head deformation rate of 0.5 mm/min in a three point bend load configuration.

- 5.3. Environmental Chamber - A chamber for controlling the test specimen at the desired temperature is required. The environmental chamber shall be capable of controlling the temperature of the specimen at 25°C to an accuracy of $\pm 1^\circ\text{C}$.
- 5.4. Measurement System - The system shall include a data acquisition system comprising analog to digital conversion and/or digital input for storage and analysis on a computer. The system shall be capable of measuring and recording the time history of the applied load for the time duration required by this test method. The system shall be capable of measuring the load and resulting deformations with a resolution of 0.5 percent.
- 5.4.1. Load - The load shall be measured with an electronic load cell having adequate capacity for the anticipated load requirements. The load cell shall be calibrated in accordance with AASHTO T67.
- 5.4.2. Axial Deformations - Axial deformations shall be measured with linear variable differential transformers (LVDT).
- 5.4.3. Temperature- Temperature shall be measured with Resistance Temperature Detectors (RTD) accurate to within $\pm 1^\circ\text{C}$.
- 5.5. Gyratory Compactor - A gyratory compactor and associated equipment for preparing laboratory specimens in accordance with AASHTO T 312 shall be used.
- 5.6. Saw - The saw shall be capable of producing three different notch sizes ranging from 0 – 50 mm. The width of the saw blade shall be 3.0mm.
- 5.7. Loading Frame - The loading frame shall consist of a loading rod and two sample support rods. The schematic of the test apparatus is shown in Figure 1 (need permission from ATM). The diameters of the loading and supports rods shall be 25.4 mm and the anvil span shall be 127.0 mm.

6. Test Specimens

- 6.1. Semi-circular bend testing may be performed on field cores or laboratory prepared test specimens.
- 6.2. Specimen Size - The test specimen shall be 150mm diameter and 57 mm thick.
- 6.2.1. The semi-circular shaped specimens are prepared by slicing the 150mm by 57mm specimen along its central axis into two equal semi-circular samples.
- 6.2.2. Field cores can also be used if pavement is at least 57 mm.
- 6.3. Notching - A vertical notch is introduced along the symmetrical axis of each semi- circular specimen. The three nominal notch sizes are 25.4 mm, 31.8 mm, and 38.1 mm. The notch depth tolerance is ± 1.0 mm. The width of the notch shall be 3.0 ± 0.5 mm.
- 6.4. Prepare four test specimens at the target air void content $\pm 0.5\%$.
- 6.5. Aging - Laboratory-prepared mixtures shall be temperature-conditioned in accordance with the oven conditioning procedure outlined in AASHTO PP2. Field mixtures need not be aged prior to testing.
- 6.6. Air Void Content - Prepare four test specimens at the target air void content $\pm 0.5\%$.
- 6.7. Replicates - Four specimen should be tested at each at each notch depth (25.4-, 31.8-, and 38.1-mm).

7. Procedure

- 7.1. Place the specimen on the bottom support, ensuring the support is centered and level (as shown in Figures 1 and 2), in the environmental chamber and allow it to stabilize to 25°C. A dummy specimen with a temperature sensor mounted to its center can be monitored to determine when the specimen reaches 25°C. In the absence of a dummy specimen, a minimum of 0.5 hours from room temperature is the required temperature equilibrium time.
- 7.2. After temperature equilibrium is reached, apply a preload of 10 lb to specimen to ensure the sample is seated properly. After ensuring the sample is level, release the load.
- 7.3. Begin to apply load to specimen in displacement control at a rate of 0.5 mm/min ensuring that time, force, and displacement are being collected and recorded. During the test have the load versus displacement plot visible, paying close attention to the peak load. Test may be terminated 120 seconds after peak load is reached.

8. Calculations

8.1. The critical value of J-integral (J_c) is determined using the following equation:

$$J_c = -\left(\frac{1}{b}\right) \frac{dU}{da}$$

Where:

b = sample thickness

a = notch depth

U = strain energy to failure.

- 8.1.1. Strain energy to failure, U is the area under the loading portion of the load vs. deflection curves, up to the maximum load measured for each notch depth (shown in Figure 3).
- 8.2. The specimens are randomly clustered into 4 groups of three (one specimen at each notch depth within the grouping) before testing. Each cluster of three notch depths may be analyzed individually. The three values of U (one at each notch depth) are plotted versus their respective notch depths. The data is then modeled with a linear regression line.(shown in Figure 4). The slope of the linear regression line represents the strain energy release rate.
- 8.3. The critical value of J-integral (J_c) then computed by dividing the slope of the linear regression line (dU/da) by the specimen thickness, b.

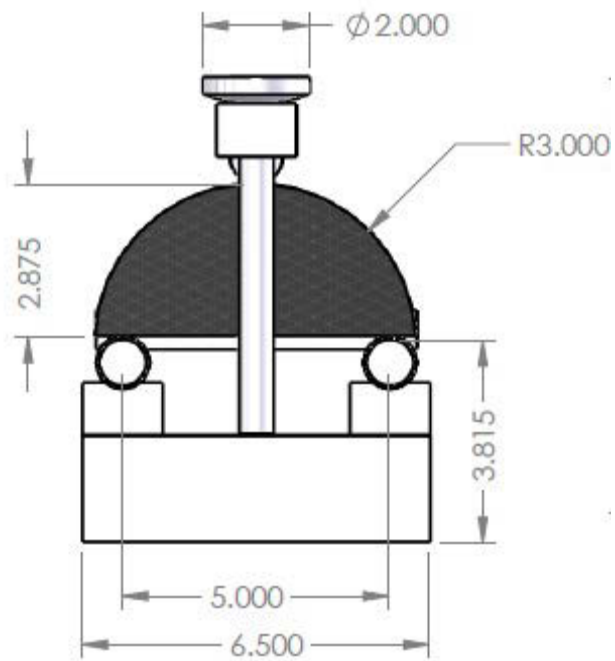
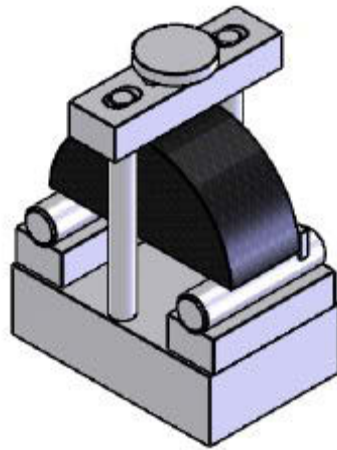


Figure 1: Schematic of the loading apparatus



Figure 2: Loading Position

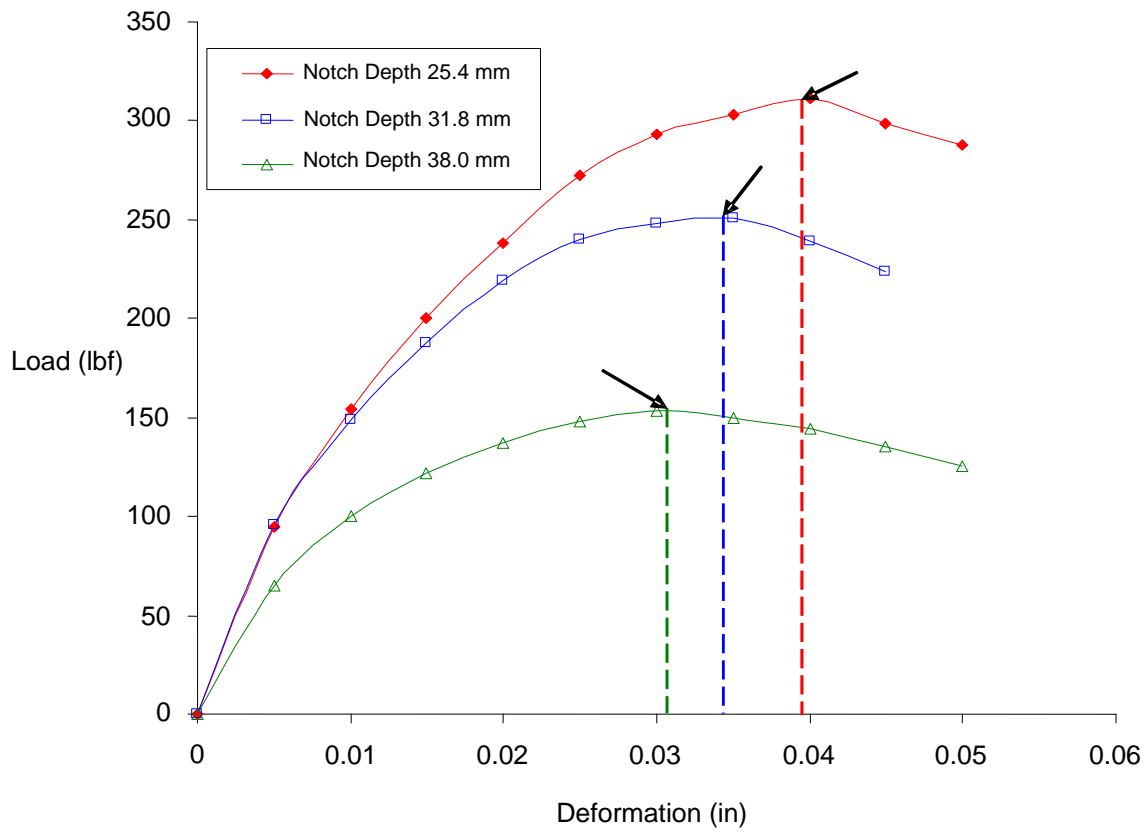


Figure 3: Deformation versus Load

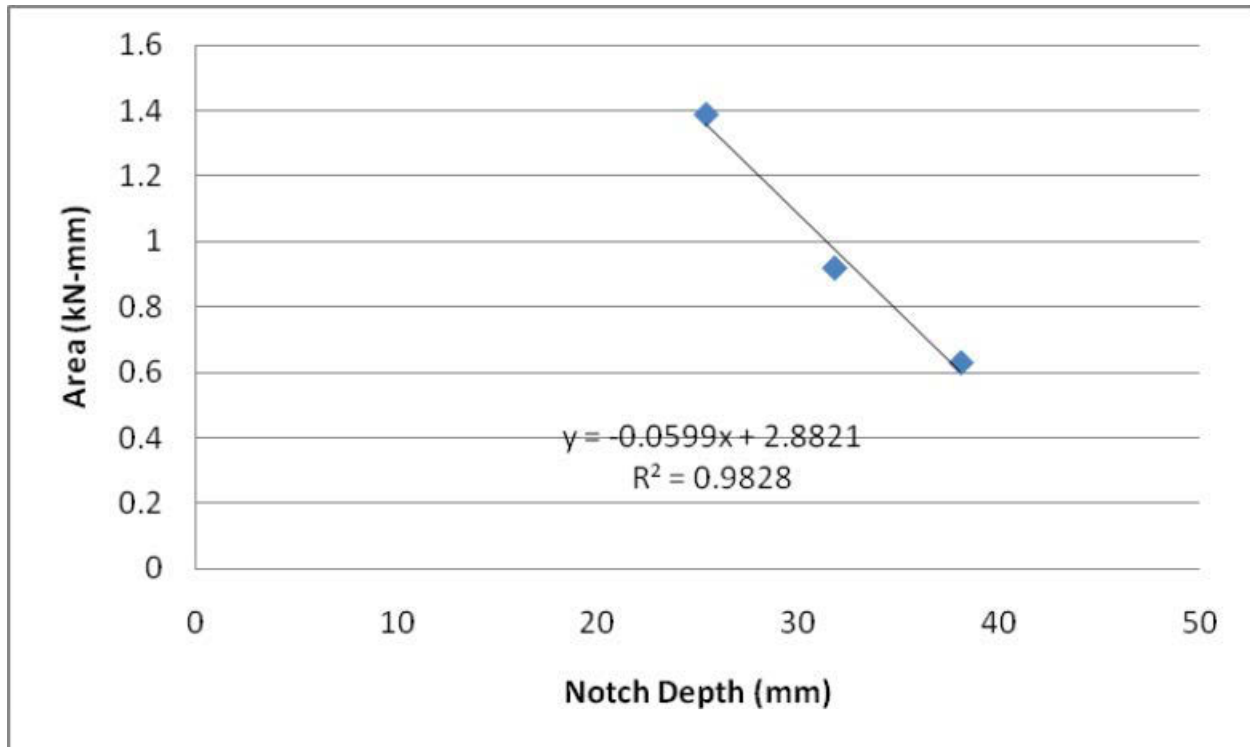


Figure 4: Notch Depth versus Area

9. Report

9.1. *The report shall include the following parameters:*

- 9.1.1 Asphalt Mixture Type;
- 9.1.2 Test Temperature, °C;
- 9.1.3 Specimen Air Voids, %;
- 9.1.4 Jc per Notch Depth, kJ/m²;
- 9.1.5 Coefficient of Determination, R²;
- 9.1.6 Mean Jc Value, kJ/m²;
- 9.1.7 Standard Deviation of Jc;
- 9.1.8 Coefficient of Variation, %.

Schedule of Items

Attached, dated February 27, 2014, are the revised Schedule of Items Pages 3 - 21.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 4-15, 23-37 and 203-208.

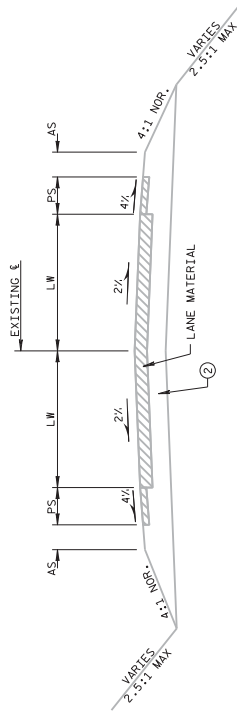
END OF ADDENDUM

PAVEMENT BORING SUMMARY TABLE

- | BOREING NO. | STATION | OFFSET | ASPHALT DEPTH | BASE DEPTH |
|-------------|---------|--------|---------------|------------|
| BH-3 | 111+25 | 6' 11" | 18 INCH | UNDEFINIED |
| BH-4 | 124+50 | 6' 11" | 17 INCH | UNDEFINIED |
| BH-5 | 139+75 | 6' 11" | 15 INCH | UNDEFINIED |
| BH-6 | 151+00 | 6' 11" | 20 INCH | UNDEFINIED |
| BH-8 | 179+50 | 6' 11" | 18 INCH | UNDEFINIED |
| BH-10 | 206+00 | 6' 11" | 18 INCH | UNDEFINIED |
| BH-11 | 219+25 | 6' 11" | 16 INCH | UNDEFINIED |
| BH-12 | 233+50 | 6' 11" | 17 INCH | UNDEFINIED |
| BH-13 | 248+00 | 6' 11" | 18 INCH | UNDEFINIED |
| BH-14 | 259+00 | 6' 11" | 15 INCH | UNDEFINIED |
| BH-15 | 272+25 | 6' 11" | 15 INCH | UNDEFINIED |
| BH-16 | 285+50 | 6' 11" | 16 INCH | UNDEFINIED |
| BH-17 | 297+00 | 6' 11" | 18 INCH | UNDEFINIED |
| BH-18 | 313+00 | 6' 11" | 16 INCH | UNDEFINIED |
| BH-19 | 325+25 | 6' 11" | 16 INCH | UNDEFINIED |
| BH-20 | 338+50 | 6' 11" | 16 INCH | UNDEFINIED |
| BH-21 | 351+75 | 6' 11" | 17 INCH | UNDEFINIED |
| BH-22 | 360+00 | 6' 11" | 13 INCH | UNDEFINIED |
| BH-23 | 373+25 | 6' 11" | 13 INCH | UNDEFINIED |
| BH-24 | 391+50 | 6' 11" | 16 INCH | UNDEFINIED |
| BH-25 | 404+75 | 6' 11" | 8 INCH | UNDEFINIED |
| BH-26 | 419+00 | 6' 11" | 10 INCH | UNDEFINIED |
| BH-27 | 431+25 | 6' 11" | 10 INCH | UNDEFINIED |
| BH-28 | 444+50 | 6' 11" | 18 INCH | UNDEFINIED |
| BH-29 | 462+25 | 6' 11" | 16.5 INCH | UNDEFINIED |
| BH-30 | 471+00 | 6' 11" | 14 INCH | UNDEFINIED |
| BH-31 | 484+25 | 6' 11" | 17 INCH | UNDEFINIED |
| BH-32 | 497+50 | 6' 11" | 13 INCH | UNDEFINIED |
| BH-33 | 510+75 | 6' 11" | 13 INCH | UNDEFINIED |
| BH-34 | 523+25 | 6' 11" | 10 INCH | UNDEFINIED |
| BH-35 | 537+50 | 6' 11" | 7.5 INCH | UNDEFINIED |
| BH-36 | 550+00 | 6' 11" | 10 INCH | UNDEFINIED |
| BH-37 | 563+75 | 6' 11" | 15 INCH | UNDEFINIED |
| BH-38 | 572+00 | 6' 11" | 10 INCH | UNDEFINIED |

NOTE: EXISTING ASPHALTIC SURFACE DEPTHS RANGE FROM 6" TO 20"
AND EXISTING BASE COURSE DEPTHS RANGE FROM 0" TO 7.5"
SEE PAVEMENT BORING SUMMARY TABLE FOR DETAILS

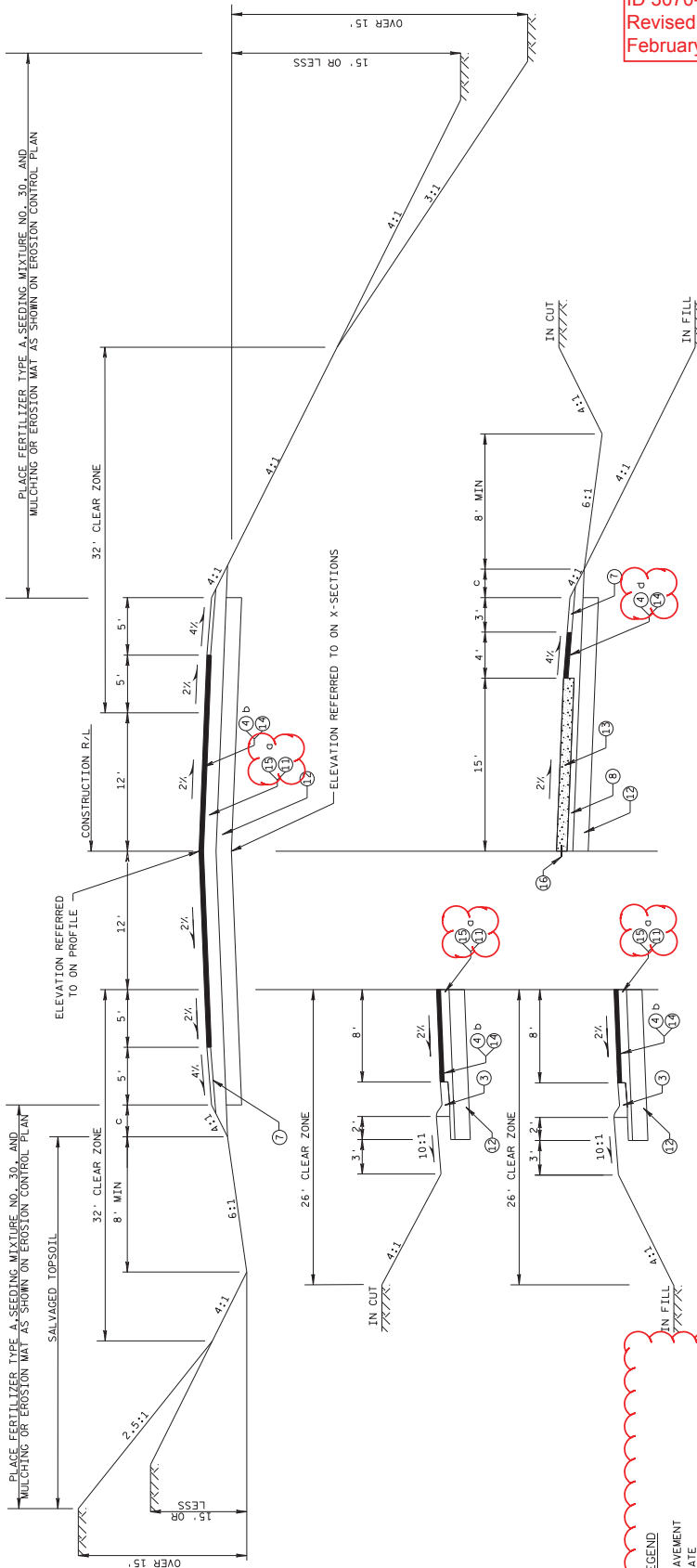
TYPICAL EXISTING SECTION
SIDE ROADS



Addendum No. 1
ID 3070-00-72
Revised Sheet 4
February 27, 2014

4

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Addendum No. 1
ID 3070-00-72
Revised Sheet 5
February 27, 2014

- PAVEMENT STRUCTURE LEGEND**
- 1 EXISTING ASPHALTIC PAVEMENT
 - 2 EXISTING BASE AGGREGATE
 - 3 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
 - 4 5-25" HMA PAVEMENT
 - 5 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
 - 6 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 - 7 4-00" HMA PAVEMENT
 - 8 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - 9 2.75" HMA PAVEMENT TYPE E-3 19.0 MM LOWER LAYER
 - 10 3" BASE AGGREGATE DENSE 1/2-INCH
 - 11 4" BASE AGGREGATE DENSE 3/4-INCH
 - 12 5" BASE AGGREGATE DENSE 1-INCH
 - 13 6" BASE AGGREGATE DENSE 1 1/4-INCH
 - 14 8" BASE AGGREGATE DENSE 1 1/2-INCH
 - 15 10" BASE AGGREGATE DENSE 1 1/2-INCH
 - 16 13.5" BASE AGGREGATE DENSE 1 1/4-INCH
 - 17 16" SELECT CRUSHED MATERIAL
 - 18 CONCRETE PAVEMENT 11-INCH
 - 19 5-25" HMA PAVEMENT
 - 20 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
 - 21 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 - 22 4-00" HMA PAVEMENT
 - 23 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - 24 2.75" HMA PAVEMENT TYPE E-3 19.0 MM LOWER LAYER
 - 25 3" BASE AGGREGATE DENSE 1/2-INCH
 - 26 4" BASE AGGREGATE DENSE 3/4-INCH
 - 27 5" BASE AGGREGATE DENSE 1-INCH
 - 28 6" BASE AGGREGATE DENSE 1 1/4-INCH
 - 29 8" BASE AGGREGATE DENSE 1 1/2-INCH
 - 30 10" BASE AGGREGATE DENSE 1 1/2-INCH
 - 31 13.5" BASE AGGREGATE DENSE 1 1/4-INCH
 - 32 16" SELECT CRUSHED MATERIAL

CURB AND GUTTER SECTIONS

STA 84+50 - 90+00 LT	STA 299+50 - 304+50 LT
STA 86+50 - 90+00 RT	STA 322+00 - 324+50 RT
STA 133+50 - 142+00 LT	STA 342+00 - 345+00 LT
STA 150+00 - 158+50 LT	STA 422+75 - 426+00 LT
STA 181+50 - 184+00 RT	STA 434+00 - 436+50 LT
STA 199+00 - 203+50 LT	STA 461+00 - 468+50 LT
STA 233+50 - 236+00 RT	STA 479+00 - 483+00 LT
STA 240+00 - 241+75 LT	STA 485+00 - 488+00 RT
STA 247+50 - 251+00 RT & LT	STA 522+00 - 524+00 RT
STA 262+00 - 265+50 RT	STA 535+50 - 537+50 RT
STA 276+50 - 281+00 RT	STA 546+00 - 549+50 LT
STA 282+55 - 287+50 LT	STA 552+00 - 564+00 RT
STA 287+50 - 291+00 RT	STA 575+00 - 579+00 LT

WEIGH IN MOTION MAINLINE SCALE SECTIONS

STA 121+00.00 - 124+00.00 LT & RT
STA 551+00.00 - 554+00.00 LT & RT

- NOTES:
- a) 15 STA 100+00.00 - 121+00.00; STA 124+00.00 - 551+00.00;
 - 11 STA 554+00.00 - 587+10.00
 - 11 STA 79+00.00 - 100+00.00
 - b) 4 STA 79+00.00 - 121+00.00; STA 124+00.00 - 281+76.00
 - 4 STA 281+76.00 - 551+00.00; STA 554+00.00 - 584+25.00
 - c) 5.63' - STA 100+00.00 - 121+00.00; STA 124+00.00 - 551+00.00;
 - 6.36' - STA 554+00.00 - 587+10.00
 - 5.30' - STA 79+00.00 - 100+00.00;
 - 5.30' - STA 121+00.00 - 124+00.00; STA 551+00.00 - 554+00.00
 - d) 4 STA 121+00.00 - 124+00.00
 - 4 STA 551+00.00 - 554+00.00

TYPICAL FINISHED SECTION

STH 73
STA 79+00.00 - STA 587+10.00

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

SHEET

5

E

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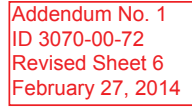
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WISDOT/CADD SHEET 42



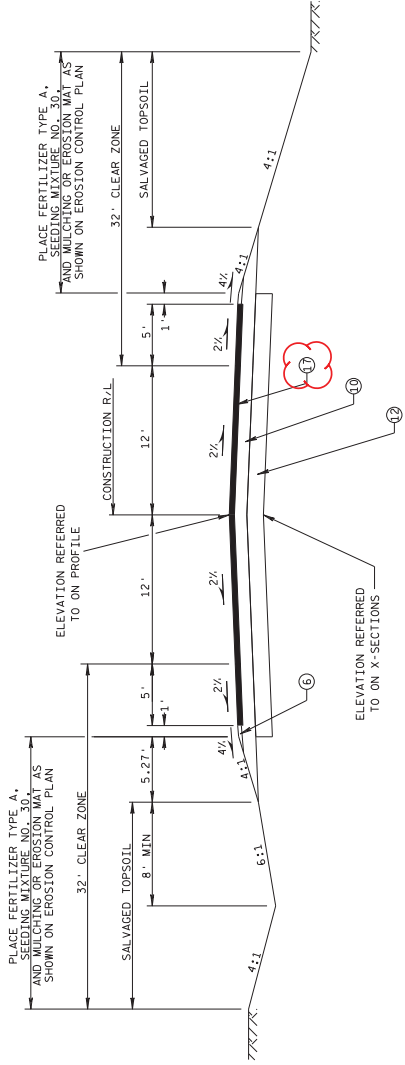
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STA 124+00.00 - 281+76.00
④ - STA 281+76.00 - 551+00.00;
STA 554+00.00 - 584+25.00

TYPICAL FINISHED SECTION

STH 73

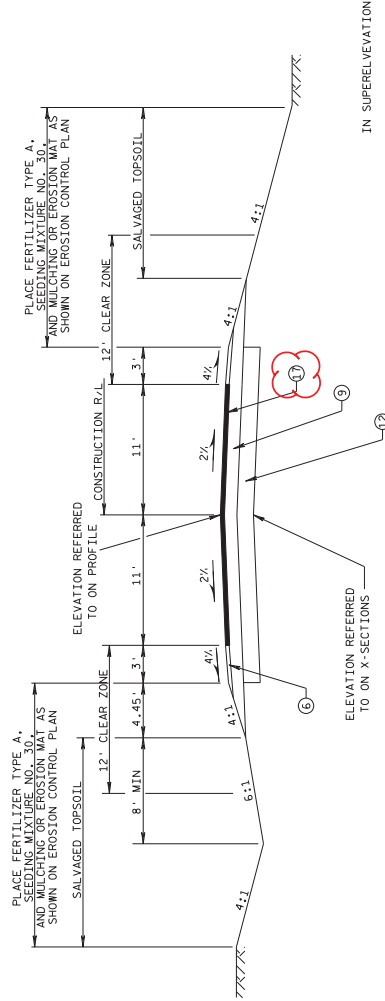
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	1	2	3	4	5	6	7	8	
HORIZONTAL CURVE									
PI STA	130+92.97	163+58.41	178+80.75	354+54.56	493+05.05	510+11.37	528+88.89	579+48.14	
SE RATE	NC	5.7%	5.7%	5.4%	NC	NC	NC	NC	
BEGIN TRANSITION	---	157+57.86	172+14.07	350+48.57	---	---	---	---	
BEGIN RUNOFF	---	158+11.19	172+67.40	351+01.90	---	---	---	---	
BEGIN FULL SUPERELEVATION	---	159+63.19	174+19.40	352+45.90	---	---	---	---	
END FULL SUPER ELEVATION	---	167+35.05	177+40.04	356+60.43	---	---	---	---	
END RUNOFF	---	168+87.05	178+92.04	358+04.43	---	---	---	---	
END TRANSITION	---	169+40.38	179+45.37	358+57.77	---	---	---	---	
LOW SIDE SHOULDER SLOPE WIDTH	---	7.23'	7.23'	7.12'	---	---	---	---	

- | PAVEMENT STRUCTURE LEGEND | |
|---------------------------|--|
| 1 | EXISTING ASPHALT PAVEMENT |
| 2 | EXISTING BASE AGGREGATE |
| 3 | CONCRETE CURB & GUTTER 4'-INCH
SLOPED 36-INCH TYPE D |
| 4 | 5.25" - HMA PAVEMENT
1.75" - HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
1.75" - HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER |
| 5 | 4.00" - HMA PAVEMENT
1.75" - HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
2.25" - HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER |
| 6 | 3.75" - BASE AGGREGATE DENSE 1/4-INCH |
| 7 | 4" - BASE AGGREGATE DENSE 3/4-INCH |
| 8 | 6" - BASE AGGREGATE DENSE 1-1/2-INCH |
| 9 | 9" - BASE AGGREGATE DENSE 1-1/2-INCH |
| 10 | 12" - BASE AGGREGATE DENSE 1-1/2-INCH |
| 11 | 13.5" - BASE AGGREGATE DENSE 1-1/2-INCH |
| 12 | 16" - SELECT CRUSHED MATERIAL |
| 13 | CONCRETE PAVEMENT 11'-INCH |
| 14 | 5.25" - HMA PAVEMENT
1.75" - HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
1.75" - HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER |
| 15 | 11'-1/2" - BASE AGGREGATE DENSE 1-1/2-INCH |
| 16 | THE BAR |
| 17 | 4.00" - HMA PAVEMENT
1.75" - HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
2.25" - HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER |



TYPICAL FINISHED SECTION
STH 106

STA 47+25.00'-J" - STA 52+75.00'-J"



TYPICAL FINISHED SECTION
CRAIG ROAD

STA 92+00.00'-C" - 105+00.00'-C"

PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4'-INCH SLOPED 36'-INCH TYPE D
- 4 5'-25" HMA PAVEMENT
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- 11 4" BASE AGGREGATE DENSE 3/4-INCH
- 12 5" BASE AGGREGATE DENSE 1 1/4-INCH
- 13 9" BASE AGGREGATE DENSE 1 1/4-INCH
- 14 12" BASE AGGREGATE DENSE 1 1/4-INCH
- 15 13.5" BASE AGGREGATE DENSE 1 1/4-INCH
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- 17 CONCRETE PAVEMENT 11'-INCH
- 18 5'-25" HMA PAVEMENT
- 19 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
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- 21 11.5" BASE AGGREGATE DENSE 1 1/4-INCH
- 22 TIE BAR
- 23 4" HMA PAVEMENT
- 24 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 25 2.75" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

HORIZONTAL CURVE	1	2	3
PT STA	93+74.46	98+06.08	102+74.94
SE RATE	5.2%	4.9%	2.8%
BEGIN TRANSITION	91+66.03	96+25.63	100+94.30
BEGIN RUNOFF	92+10.64	96+61.96	101+30.73
BEGIN FULL SUPER ELEVATION	93+26.64	97+50.96	101+61.73
END FULL SUPER ELEVATION	94+21.92	98+59.61	103+67.75
END RUNOFF	95+37.92	99+48.61	104+18.75
END TRANSITION	95+82.54	99+84.94	104+55.18

IN SUPERELEVATION

PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
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- 6 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 7 4-00" HMA PAVEMENT
- 8 1.75" HMA PAVEMENT
- 9 3" BASE AGGREGATE DENSE 1/2-INCH
- 10 4" BASE AGGREGATE DENSE 3/4-INCH
- 11 5" BASE AGGREGATE DENSE 1 1/4-INCH
- 12 12" BASE AGGREGATE DENSE 1 1/4-INCH
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PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

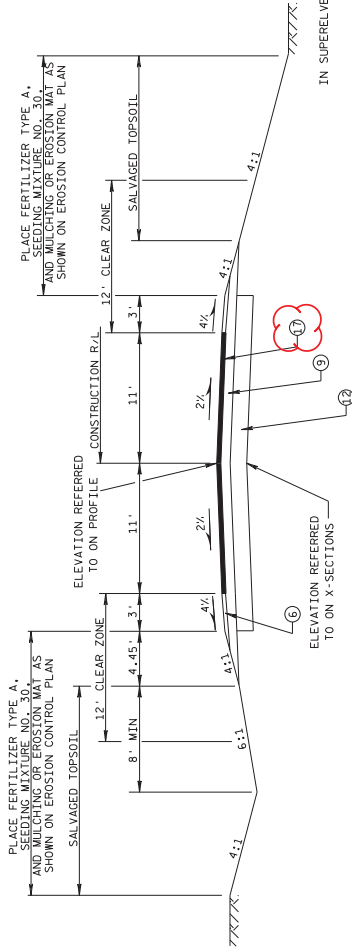
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SHEET

8

PLOT SCALE : $\$ \$ \dots \text{plot scale} \dots \$ \$$ WISDOT/CADD SHEET 42

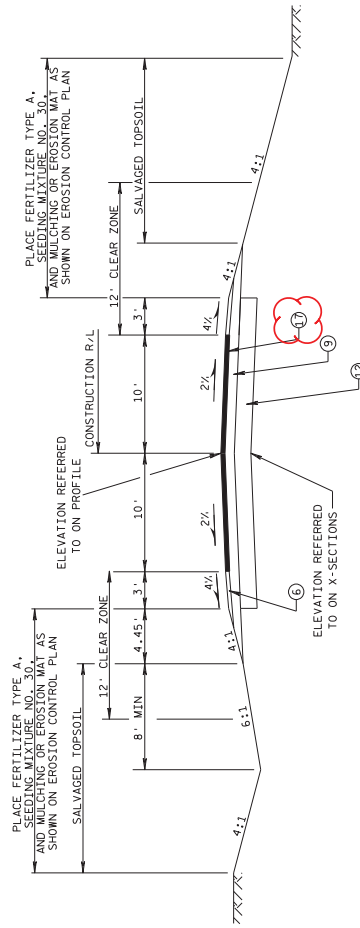
Addendum No. 1
ID 3070-00-72
Revised Sheet 8
February 27, 2014



HORIZONTAL CURVE	
PI STA	148+41.14
SE RATE	4.1%
BEGIN TRANSITION	146+86.90
BEGIN RUNOFF	147+23.48
BEGIN FULL SUPERELEVATION	147+23.48
END FULL SUPER ELEVATION	148+83.43
END RUNOFF	149+58.43
END TRANSITION	149+95.01

IN SUPERELEVATION

STA 144+51.00' MG' - 150+00.00' MG'



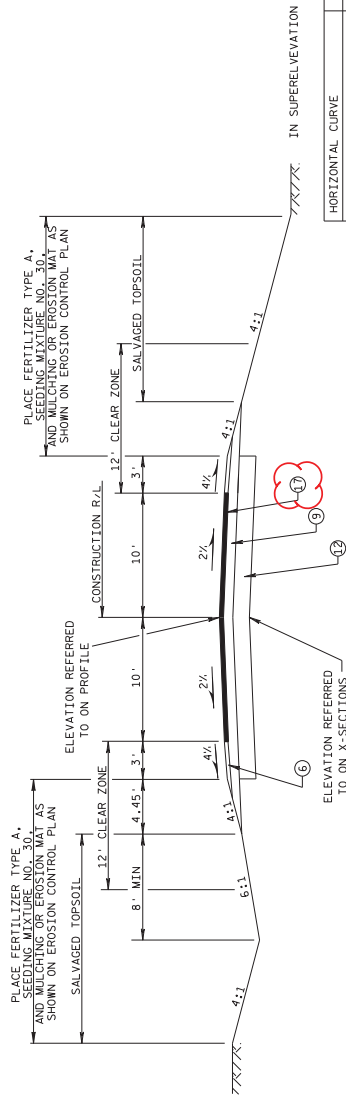
IN SUPERELEVATION

HORIZONTAL CURVE	
PI STA	196+01.00
SE RATE	2.9%
BEGIN TRANSITION	194+81.58
BEGIN RUNOFF	195+16.07
BEGIN FULL SUPERELEVATION	195+16.07
END FULL SUPER ELEVATION	196+35.83
END RUNOFF	196+85.83
END TRANSITION	197+18.79

STA 194+90.00' AR' - 202+80.00' AR'

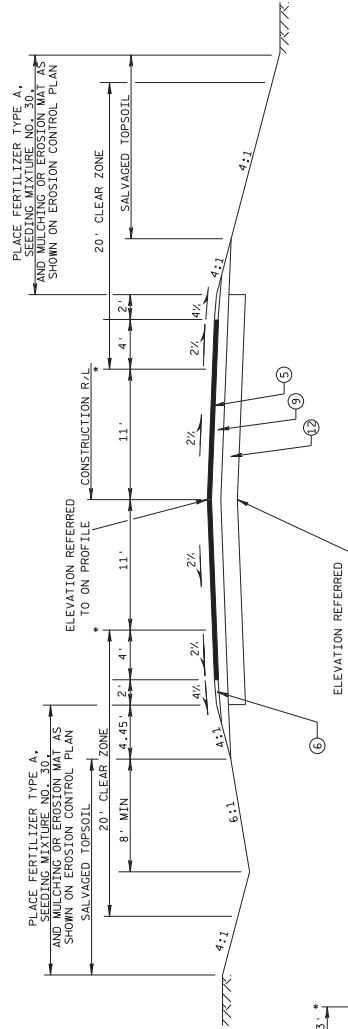
PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4-INCH
- 4 SLOPED 36-INCH TYPE D
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- 8 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
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- 13 9" BASE AGGREGATE DENSE 1 1/4-INCH
- 14 12" BASE AGGREGATE DENSE 1 1/4-INCH
- 15 13.5" BASE AGGREGATE DENSE 1 1/4-INCH
- 16 16" BASE AGGREGATE DENSE 1 1/4-INCH
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- 25 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 26 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER



TYPICAL FINISHED SECTION
THRONSON ROAD

STA 247+00.00"TH" - 250+00.00"TH"

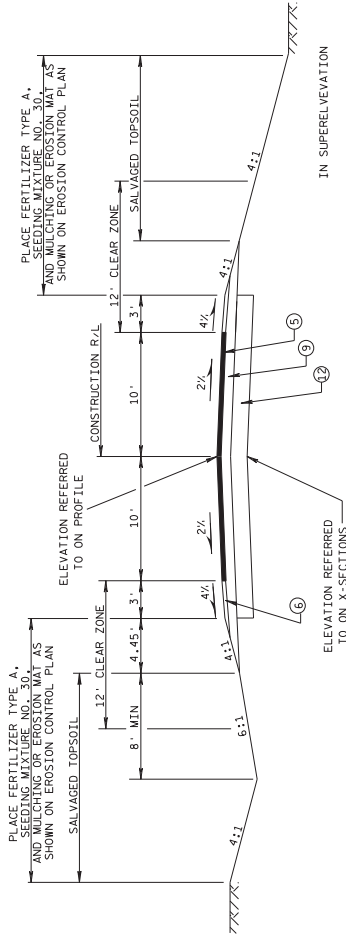


TYPICAL FINISHED SECTION
CTH A

STA 296+75.00"A" - 303+75.00"A"
CURB AND GUTTER SECTIONS
STA 300+65 - 303+75 LT
STA 300+84 - 303+75 RT

* - SAME POINT IN ALTERNATIVE SHOULDER OR CURB DESIGNS

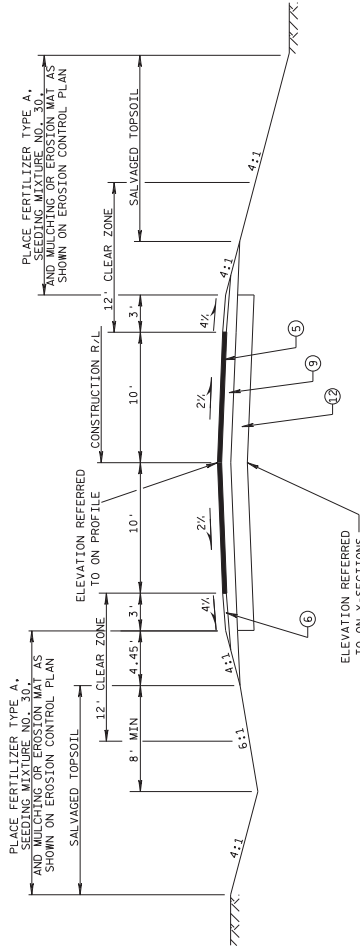
Addendum No. 1
ID 3070-00-72
Revised Sheet 9
February 27, 2014



TYPICAL FINISHED SECTION
TOBACCO LANE

STA 347+50.00'-0" - 350+00.00'-0"

HORIZONTAL CURVE	1
PI STA	348+58.02
SE RATE	4.1%
BEGIN TRANSITION	347+15.46
BEGIN RUNOFF	347+52.04
BEGIN FULL SUPERELEVATION	348+27.04
END FULL SUPER ELEVATION	348+88.78
END RUNOFF	349+63.78
END TRANSITION	350+00.37



TYPICAL FINISHED SECTION
EAST CHURCH ROAD

STA 395+50.00'-0" - 404+50.00'-0"

PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
- 4 5.25" HMA PAVEMENT
- 5 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 6 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 7 4.00" HMA PAVEMENT
- 8 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
- 9 2.75" HMA PAVEMENT TYPE E-3 19.0 MM LOWER LAYER
- 10 3" BASE AGGREGATE DENSE 1/2-INCH
- 11 4" BASE AGGREGATE DENSE 3/4-INCH
- 12 5" BASE AGGREGATE DENSE 1 1/4-INCH
- 13 6" BASE AGGREGATE DENSE 1 1/2-INCH
- 14 12" BASE AGGREGATE DENSE 1 1/4-INCH
- 15 13.5" BASE AGGREGATE DENSE 1 1/4-INCH
- 16 16" SELECT CRUSHED MATERIAL
- 17 CONCRETE PAVEMENT 11-INCH
- 18 5.25" HMA PAVEMENT
- 19 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 20 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 21 11.5" BASE AGGREGATE DENSE 1 1/4-INCH
- 22 TIE BAR
- 23 4" HMA PAVEMENT
- 24 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 25 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

SHEET

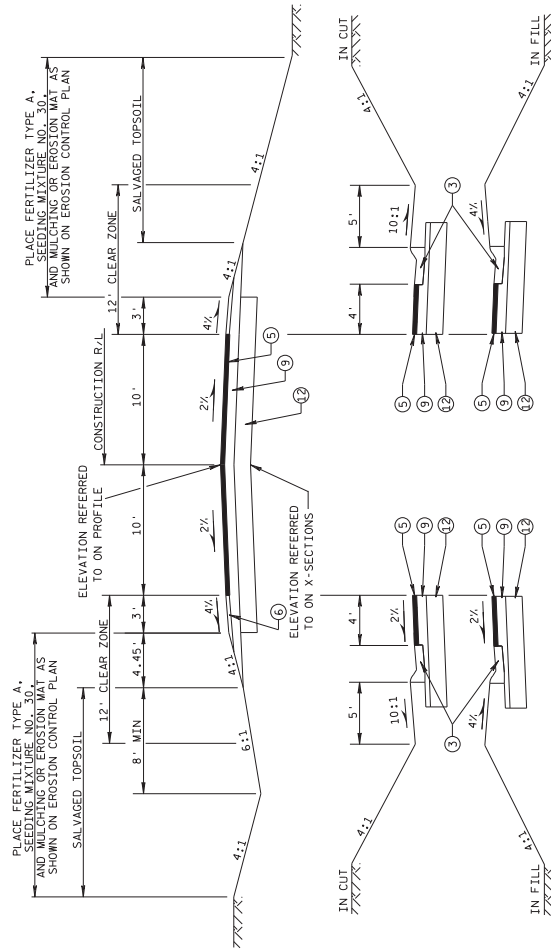
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E

Addendum No. 1
ID 3070-00-72
Revised Sheet 10
February 27, 2014



STA 448+00.00 - 452+00.00



TYPICAL FINISHED SECTION

AD

STA 494+76.09 - 502+00.00

CLUBB AND GLITTER SECTIONS

STA 500+72.00 - 501+80.00 LT
STA 500+85.00 - 502+00.00 RT

IN SUPERELEVATION

HORIZONTAL CURVE	1
PI STA	496+30.64
SE RATE	NC
BEGIN TRANSITION	---
BEGIN RUNOFF	---
BEGIN FULL SUPERELEVATION	---
END FULL SUPER ELEVATION	---
END RUNOFF	---
END TRANSITION	---

- PAVEMENT STRUCTURE LEGEND

- | | | |
|----|---|--|
| 1 | EXISTING ASPHALTIC PAVEMENT | |
| 2 | EXISTING BASE AGGREGATE | |
| 3 | CONCRETE CURB & GUTTER 4'-INCH | |
| 4 | 5'-25% HMA PAVEMENT | |
| 5 | 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER | |
| 6 | 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER | |
| 7 | 4.00" HMA PAVEMENT TYPE E-3 19.5 MM UPPER LAYER | |
| 8 | 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER | |
| 9 | 4" BASE AGGREGATE DENSE 3/4"-INCH | |
| 10 | 6" BASE AGGREGATE DENSE 1 1/2"-INCH | |
| 11 | 9" BASE AGGREGATE DENSE 1 1/2"-INCH | |
| 12 | 12" BASE AGGREGATE DENSE 1 1/2"-INCH | |
| 13 | 13.5" BASE AGGREGATE DENSE 1 1/2"-INCH | |
| 14 | 16" SELECT CRUSHED MATERIAL | |
| 15 | CONCRETE PAVEMENT 11"-INCH | |
| 16 | 5'-25% HMA PAVEMENT | |
| 17 | 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER | |
| 18 | 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER | |
| 19 | 11'-5" BASE AGGREGATE DENSE 1 1/2"-INCH | |
| 20 | TIE BAR | |
| 21 | 4" HMA PAVEMENT | |
| 22 | 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER | |
| 23 | 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER | |

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

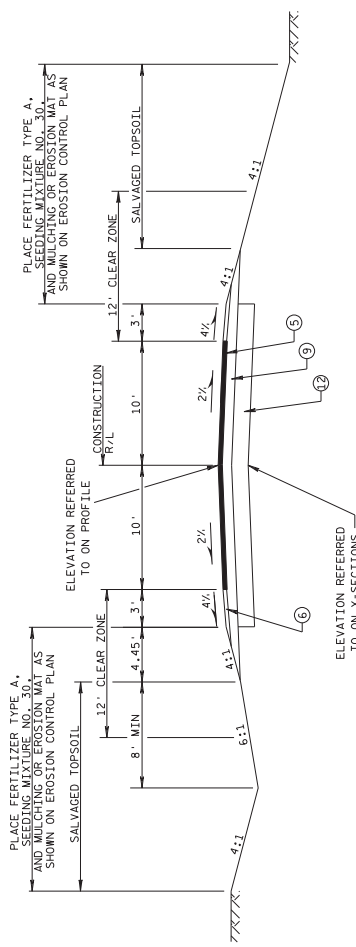
TYPICAL SECTIONS

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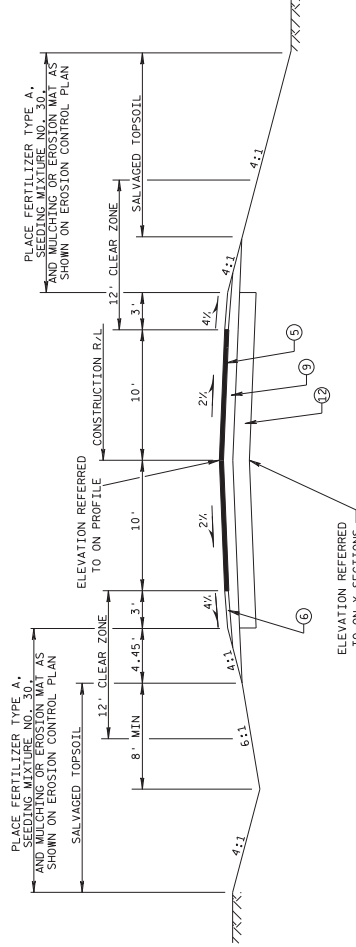
Addendum No. 1
ID 3070-00-72
Revised Sheet 11
February 27, 2014



TYPICAL FINISHED SECTION

SMITHBACK ROAD

STA 547+35.00'-SM" - 550+00.00'-SM"



TYPICAL FINISHED SECTION

PRAIRIE QUEEN ROAD

STA 595+50.00'-PR" - 600+00.00'-PR"

PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
- 4 5.25" HMA PAVEMENT 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 5 4.00" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER 2.75" HMA PAVEMENT TYPE E-3 19.0 MM LOWER LAYER
- 6 3" BASE AGGREGATE DENSE 1/2-INCH
- 7 4" BASE AGGREGATE DENSE 3/4-INCH
- 8 5" BASE AGGREGATE DENSE 1/2-INCH
- 9 9" BASE AGGREGATE DENSE 1/4-INCH
- 10 12" BASE AGGREGATE DENSE 1/4-INCH
- 11 13.5" BASE AGGREGATE DENSE 1/4-INCH
- 12 16" SELECT CRUSHED MATERIAL
- 13 CONCRETE PAVEMENT 11-INCH
- 14 5.25" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 15 11.5" BASE AGGREGATE DENSE 1/4-INCH
- 16 TIE BAR
- 17 4" HMA PAVEMENT 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

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ID 3070-00-72
Revised Sheet 12
February 27, 2014

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

SHEET

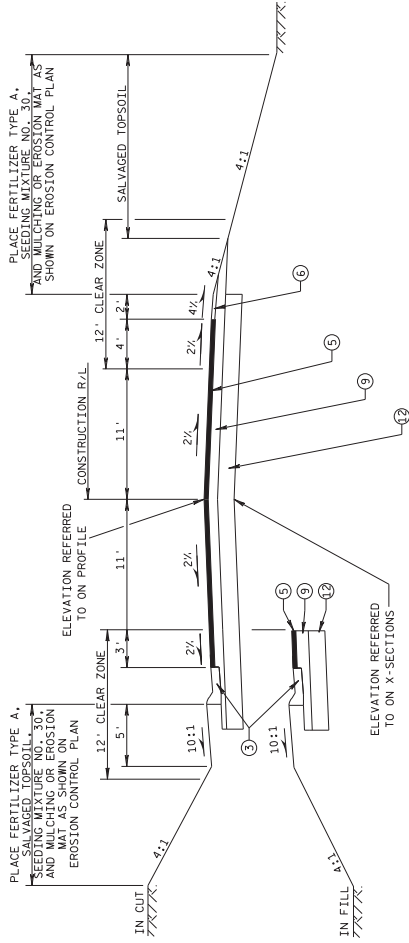
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E

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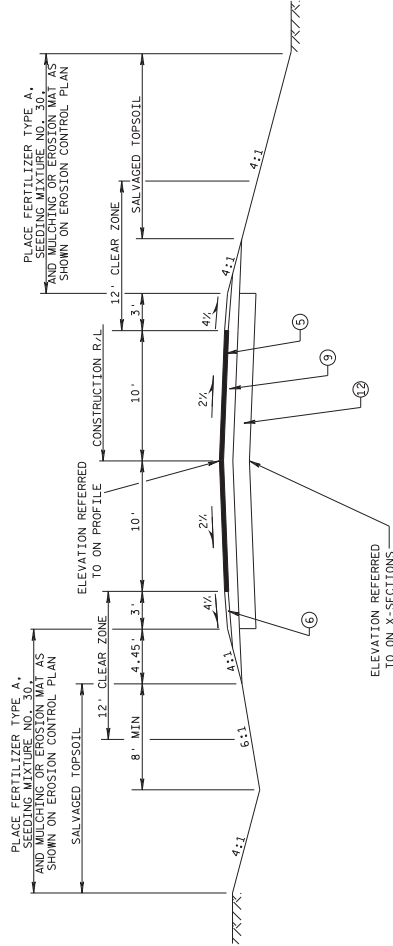
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PLOT SCALE : \$\$\$...plotscale...\$\$\$ WISDOT/CADD SHEET 42



TYPICAL FINISHED SECTION
CTH PO

STA 600+00.00-PR - 602+00.00-PR



TYPICAL FINISHED SECTION
HILLCREST ROAD

STA 644+75.00-H - 650+00.00-H

PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
- 4 5.25" HMA PAVEMENT
- 5 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 6 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 7 4.00" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
- 8 2.75" HMA PAVEMENT TYPE E-3 19.0 MM LOWER LAYER
- 9 3" BASE AGGREGATE DENSE 1/2-INCH
- 10 4" BASE AGGREGATE DENSE 3/4-INCH
- 11 5" BASE AGGREGATE DENSE 1/2-INCH
- 12 9" BASE AGGREGATE DENSE 1/4-INCH
- 13 12" BASE AGGREGATE DENSE 1/4-INCH
- 14 13.5" BASE AGGREGATE DENSE 1/4-INCH
- 15 16" SELECT CRUSHED MATERIAL
- 16 CONCRETE PAVEMENT 11-INCH
- 17 5.25" HMA PAVEMENT
- 18 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 19 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 20 4" BASE AGGREGATE DENSE 1/2-INCH
- 21 TIE BAR
- 22 4" HMA PAVEMENT
- 23 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 24 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

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ID 3070-00-72
Revised Sheet 13
February 27, 2014

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

SHEET

13

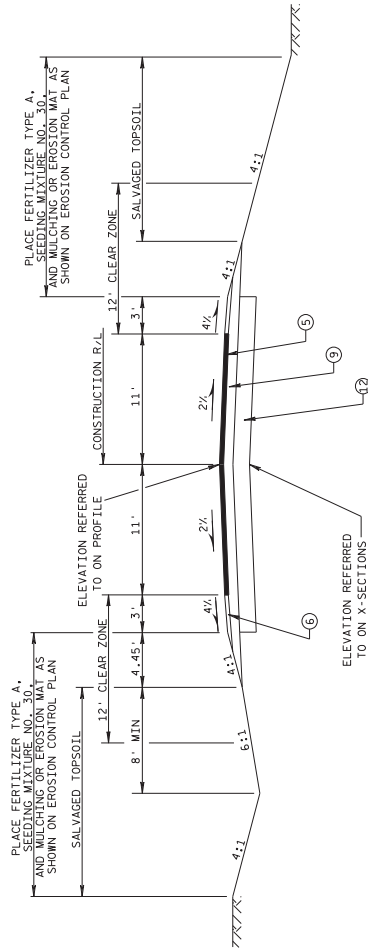
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- PAVEMENT STRUCTURE LEGEND
- 1 EXISTING ASPHALTIC PAVEMENT
 - 2 EXISTING BASE AGGREGATE
 - 3 CONCRETE CURB & GUTTER 4-INCH
 - 4 SUBGRADE 36-INCH TYPE D
 - 5 2.25" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
 - 6 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 - 7 4.00" HMA PAVEMENT
 - 8 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - 9 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 - 10 3" BASE AGGREGATE DENSE 3/4-INCH
 - 11 4" BASE AGGREGATE DENSE 3/4-INCH
 - 12 6" BASE AGGREGATE DENSE 1 1/4-INCH
 - 13 9" BASE AGGREGATE DENSE 1 1/4-INCH
 - 14 12" BASE AGGREGATE DENSE 1 1/4-INCH
 - 15 13.5" BASE AGGREGATE DENSE 1 1/4-INCH
 - 16 16" SELECT CRUSHED MATERIAL
 - 17 CONCRETE PAVEMENT 11-INCH
 - 18 5.25" HMA PAVEMENT
 - 19 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - 20 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 - 21 11.5" BASE AGGREGATE DENSE 1 1/4-INCH
 - 22 TIE BAR
 - 23 4" HMA PAVEMENT
 - 24 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - 25 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER



TYPICAL FINISHED SECTION
FADNESS ROAD

STA 700+00.00'FD" - 703+50.00'FD"

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

SHEET

14

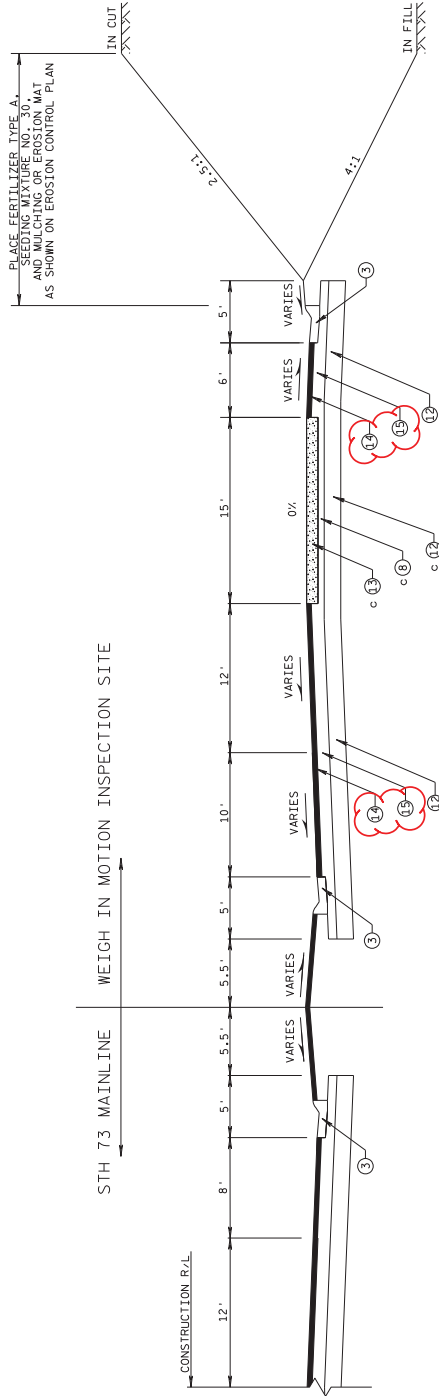
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TYPICAL FINISHED SECTION
WEIGH IN MOTION INSPECTION SITE
STA 363+88 - 365+48

NOTES: c) STA 364+06 - 365+31

PAVEMENT STRUCTURE LEGEND

- 1 EXISTING ASPHALTIC PAVEMENT
- 2 EXISTING BASE AGGREGATE
- 3 CONCRETE CURB & GUTTER 4-INCH
- 4 SLOPED 36-INCH TYPE D
- 5 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 6 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 7 4.00" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
- 8 2.75" HMA PAVEMENT TYPE E-3 19.0 MM LOWER LAYER
- 9 3" BASE AGGREGATE DENSE 1/2-INCH
- 10 4" BASE AGGREGATE DENSE 1/2-INCH
- 11 5" BASE AGGREGATE DENSE 1/2-INCH
- 12 6" BASE AGGREGATE DENSE 1/2-INCH
- 13 12" BASE AGGREGATE DENSE 1/4-INCH
- 14 13.5" BASE AGGREGATE DENSE 1/4-INCH
- 15 16" SELECT CRUSHED MATERIAL
- 16 CONCRETE PAVEMENT 11-INCH
- 17 5.25" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
- 18 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
- 19 11.5" BASE AGGREGATE DENSE 1/4-INCH
- 20 TIE BAR
- 21 4" HMA PAVEMENT
- 22 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
- 23 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

PROJECT NO: 3070-00-78

HWY: STH 73

COUNTY: DANE

TYPICAL SECTIONS

SHEET

15

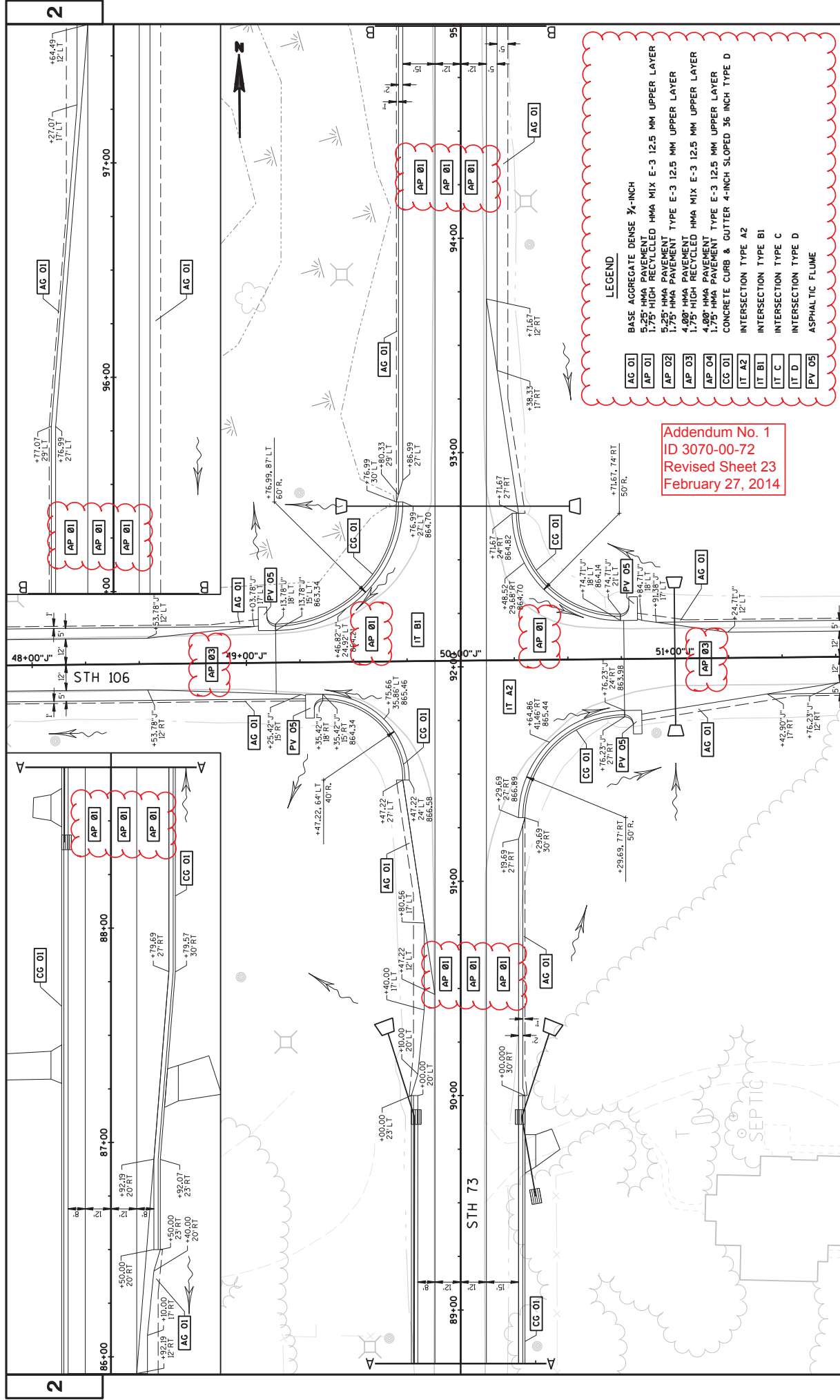
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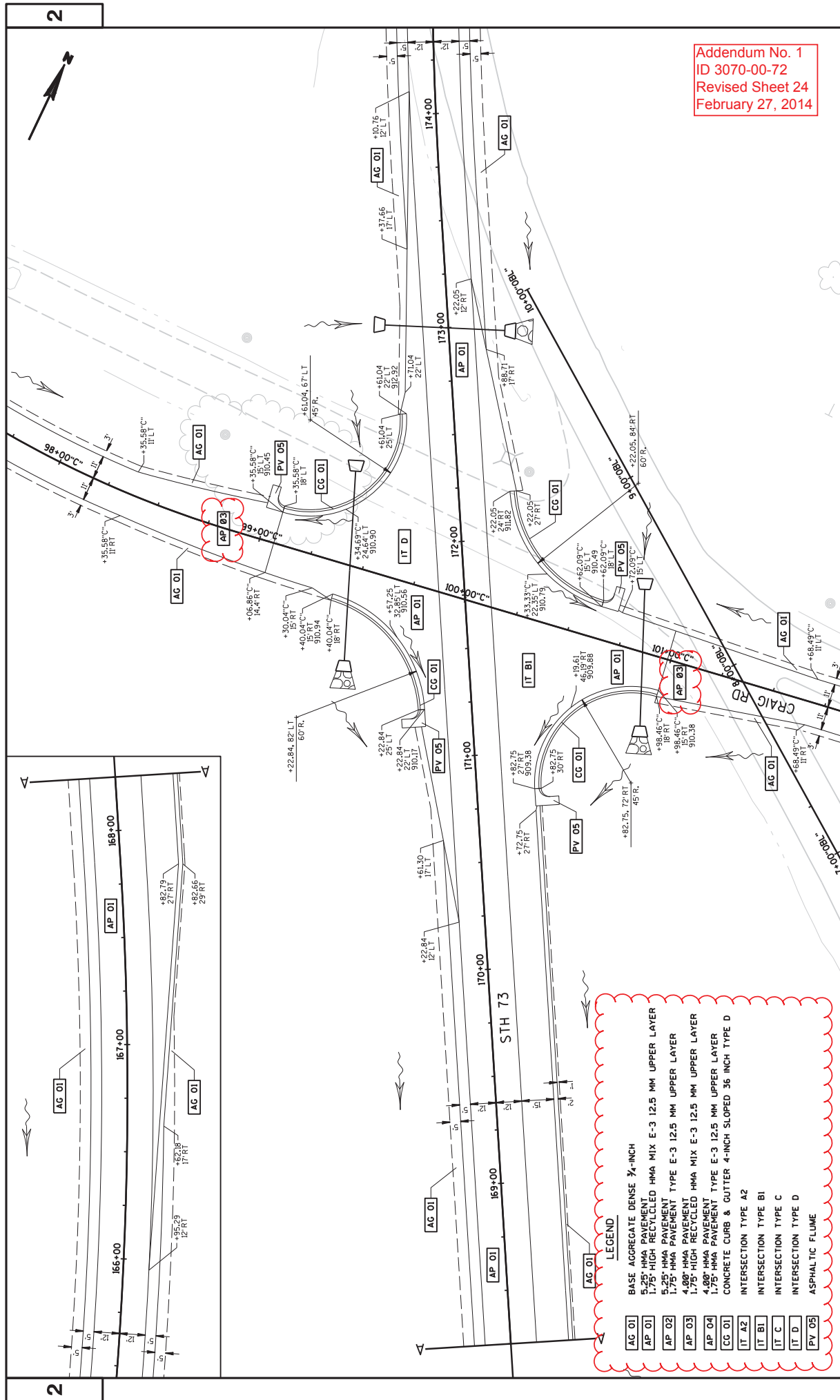
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Addendum No. 1
ID 3070-00-72
Revised Sheet 15
February 27, 2014

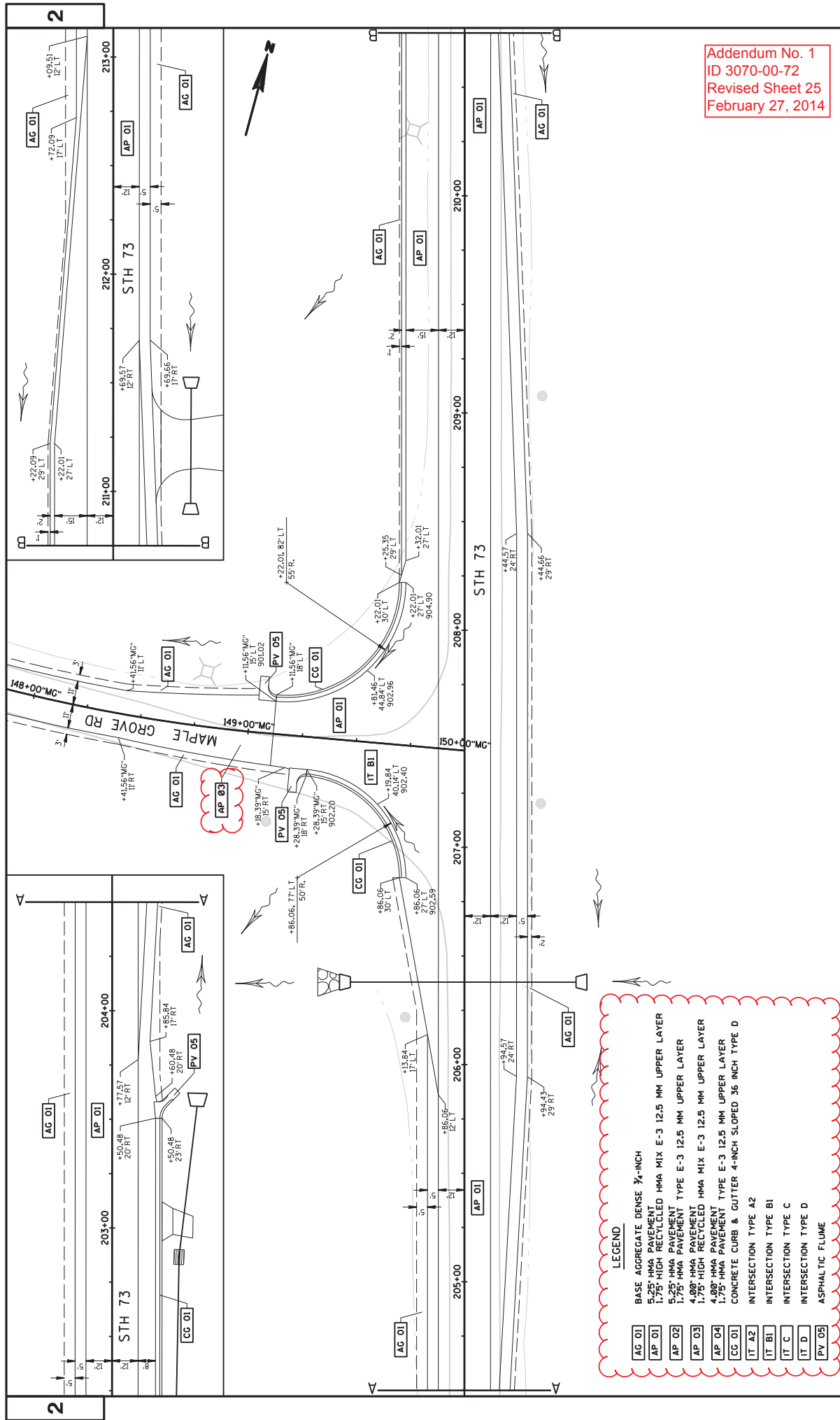


- LEGEND**
- AG 01 BASE AGGREGATE DENSE 3/4-INCH
 - AP 01 5.25" HMA PAVEMENT
 - AP 02 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
 - AP 03 5.25" HMA PAVEMENT
 - AP 04 1.75" HMA PAVEMENT
 - CC 01 4.00" HMA PAVEMENT
 - IT A2 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
 - IT B1 4.00" HMA PAVEMENT
 - IT C 1.75" HMA PAVEMENT
 - IT D 4.00" HMA PAVEMENT
 - PV 05 CONCRETE CURB & GUTTER 4-INCH SLOPED 36 INCH TYPE D

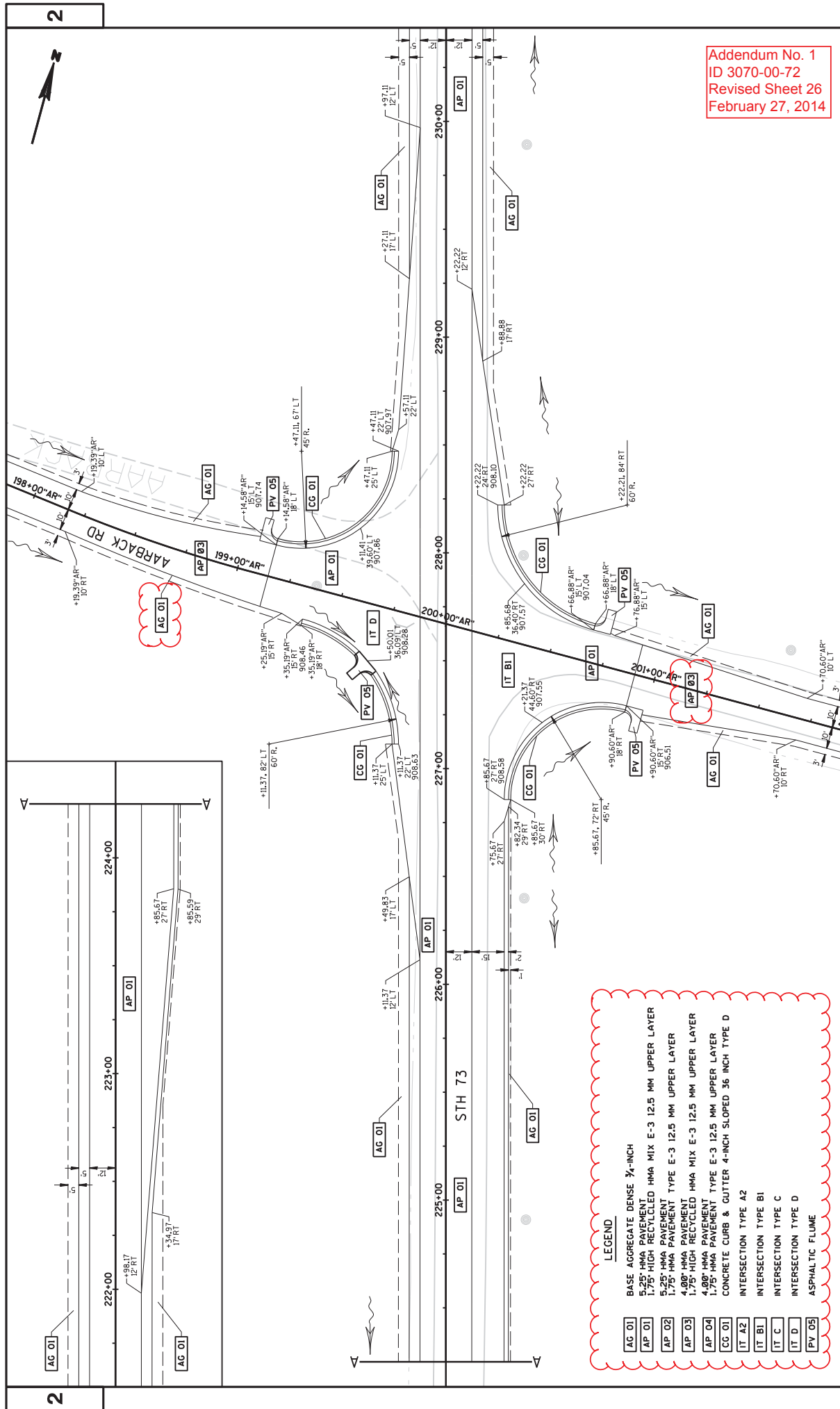
Addendum No. 1
ID 3070-00-72
Revised Sheet 23
February 27, 2014



Addendum No. 1
ID 3070-00-72
Revised Sheet 24
February 27, 2014

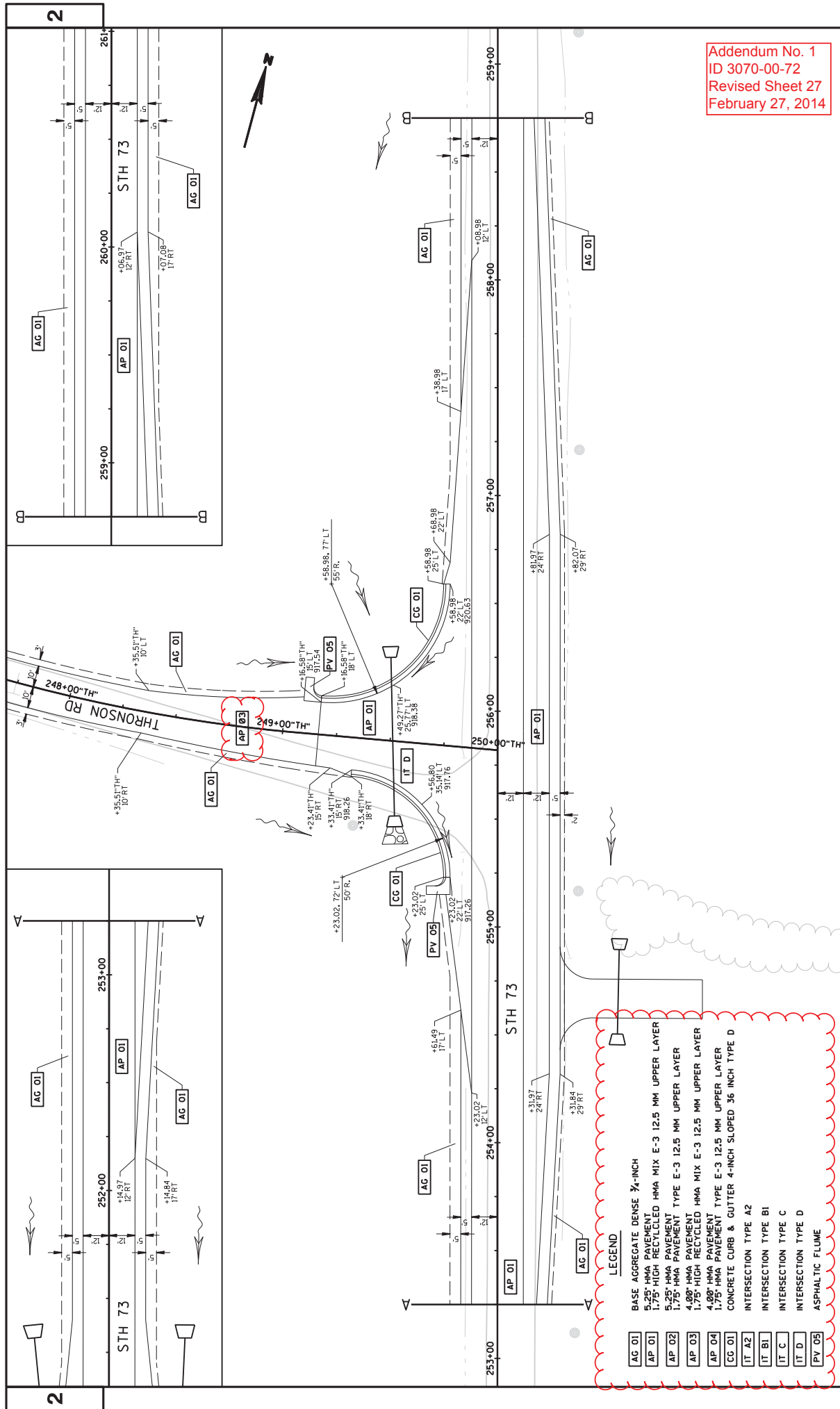


Addendum No. 1
ID 3070-00-72
Revised Sheet 25
February 27, 2014

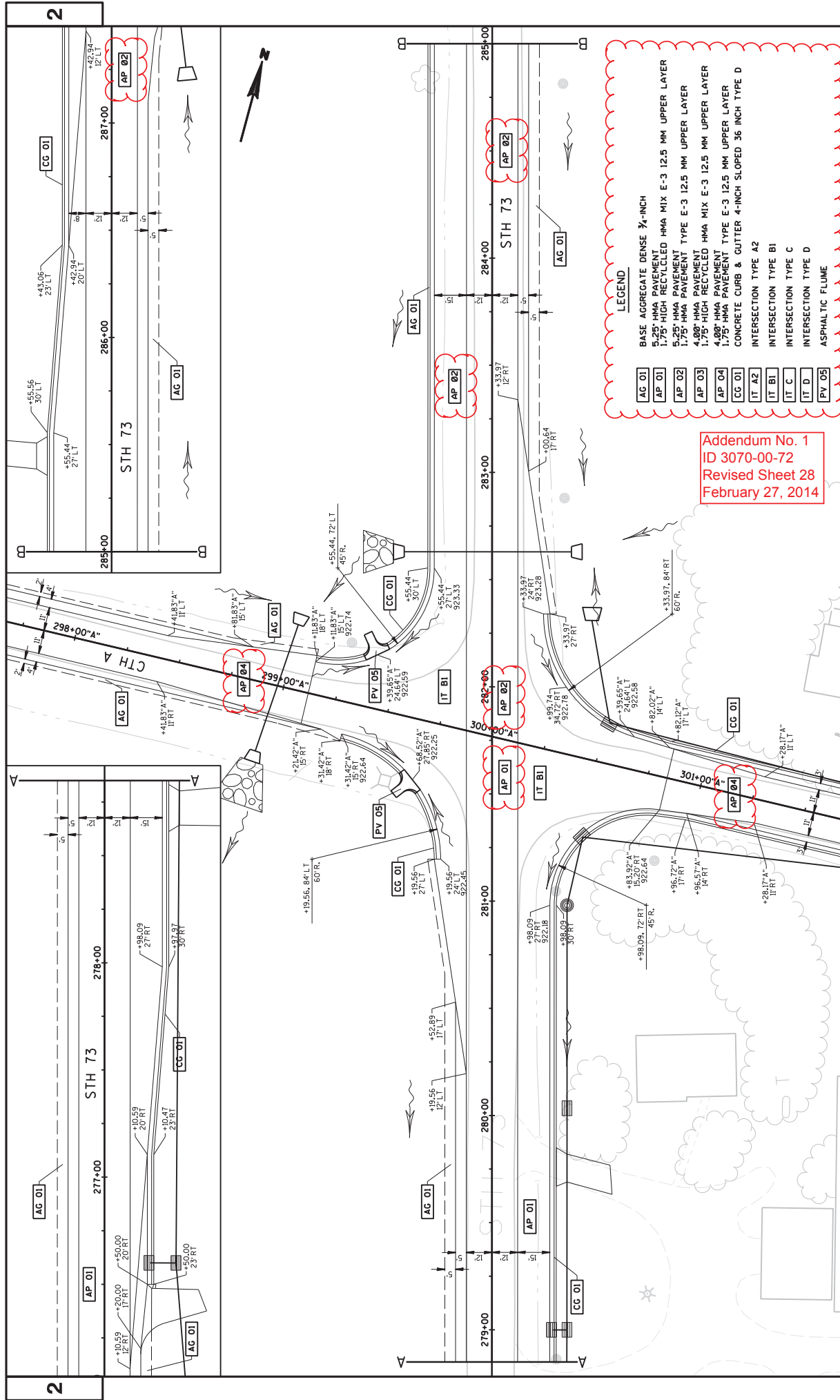


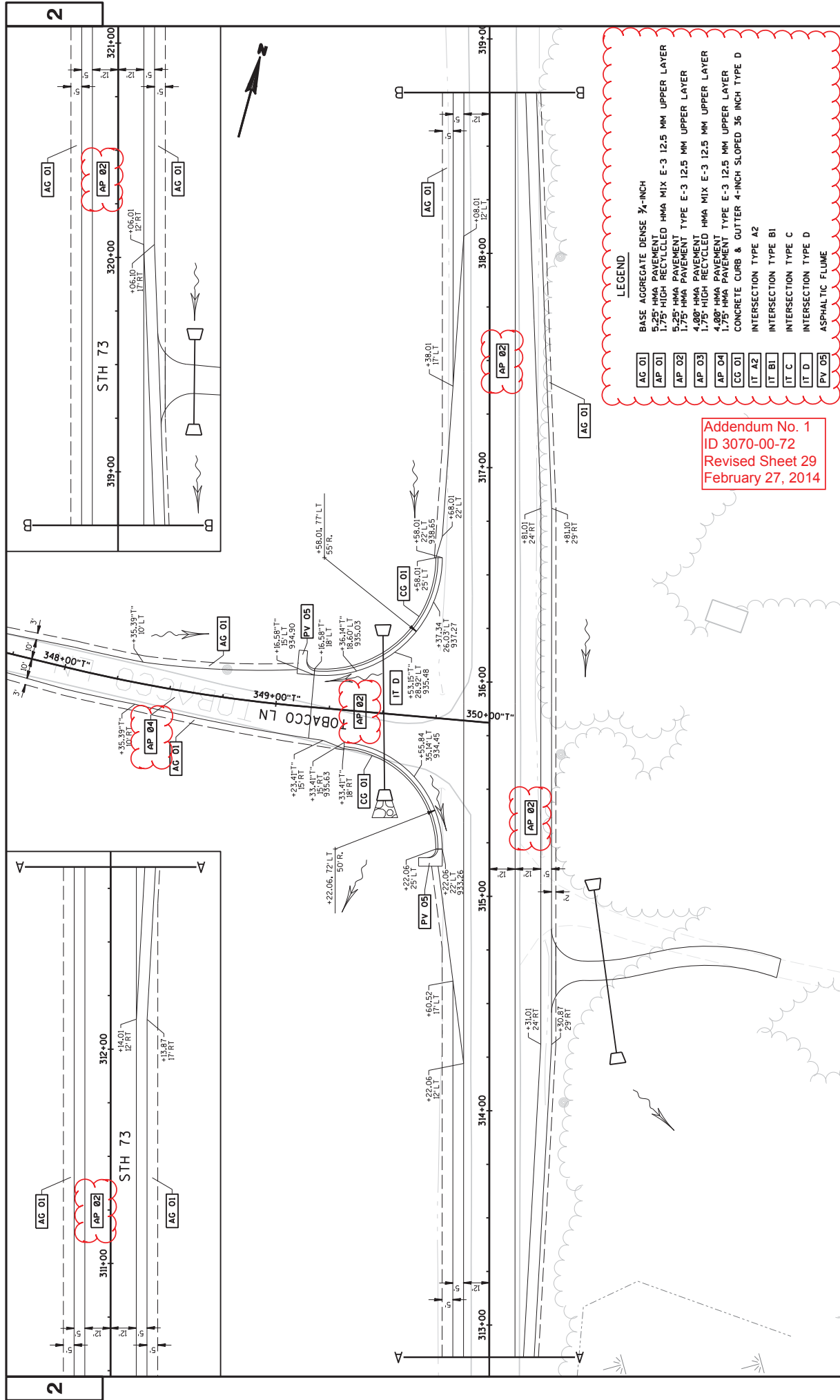
Addendum No. 1
ID 3070-00-72
Revised Sheet 26
February 27, 2014

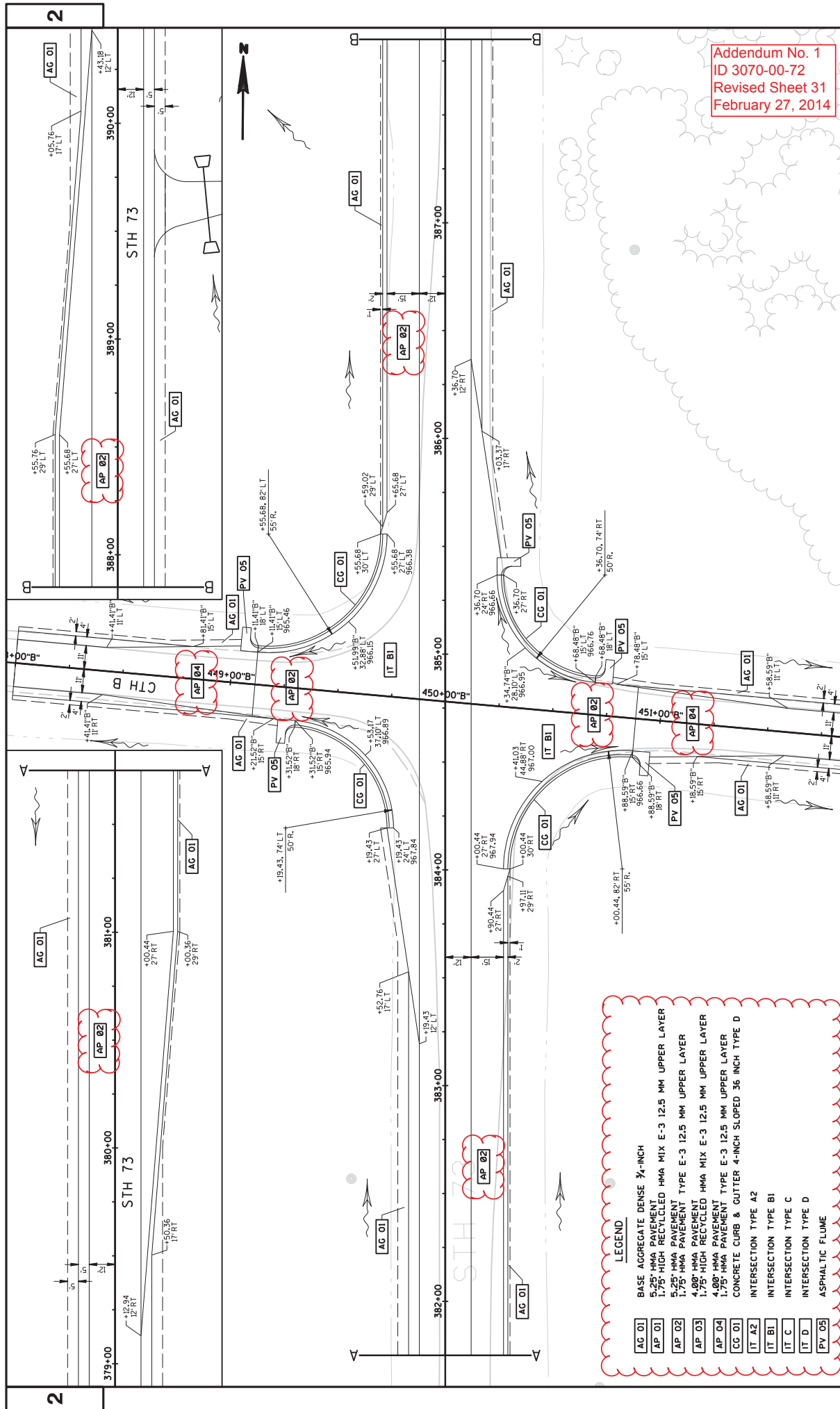
- LEGEND**
- AG 01 BASE AGGREGATE DENSE 3/4-INCH
 - AP 01 5.25" HMA PAVEMENT
 - AP 02 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
 - AP 03 5.25" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - AP 04 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 - CG 01 4.00" HMA PAVEMENT
 - IT A2 1.75" HMA PAVEMENT
 - IT BI CONCRETE CURB & GUTTER 4-INCH SLOPED 36 INCH TYPE D
 - IT C INTERSECTION TYPE A2
 - IT D INTERSECTION TYPE BI
 - PV 05 INTERSECTION TYPE C
 - IT D INTERSECTION TYPE D
 - PV 05 ASPHALTIC FLUME



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AG 01

AP 01

AP 02

AP 03

AP 04

CG 01

IT A2

IT BI

IT C

IT D

PV 05

BASE AGGREGATE DENSE 3/4-INCH

5.25" HMA PAVEMENT

1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER

5.25" HMA PAVEMENT

1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER

4.00" HMA PAVEMENT

1.75" HMA PAVEMENT

4.00" HMA PAVEMENT

1.75" HMA PAVEMENT

CONCRETE CURB & GUTTER 4-INCH SLOPED 36 INCH TYPE D

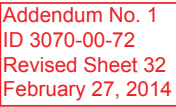
INTERSECTION TYPE A2

INTERSECTION TYPE BI

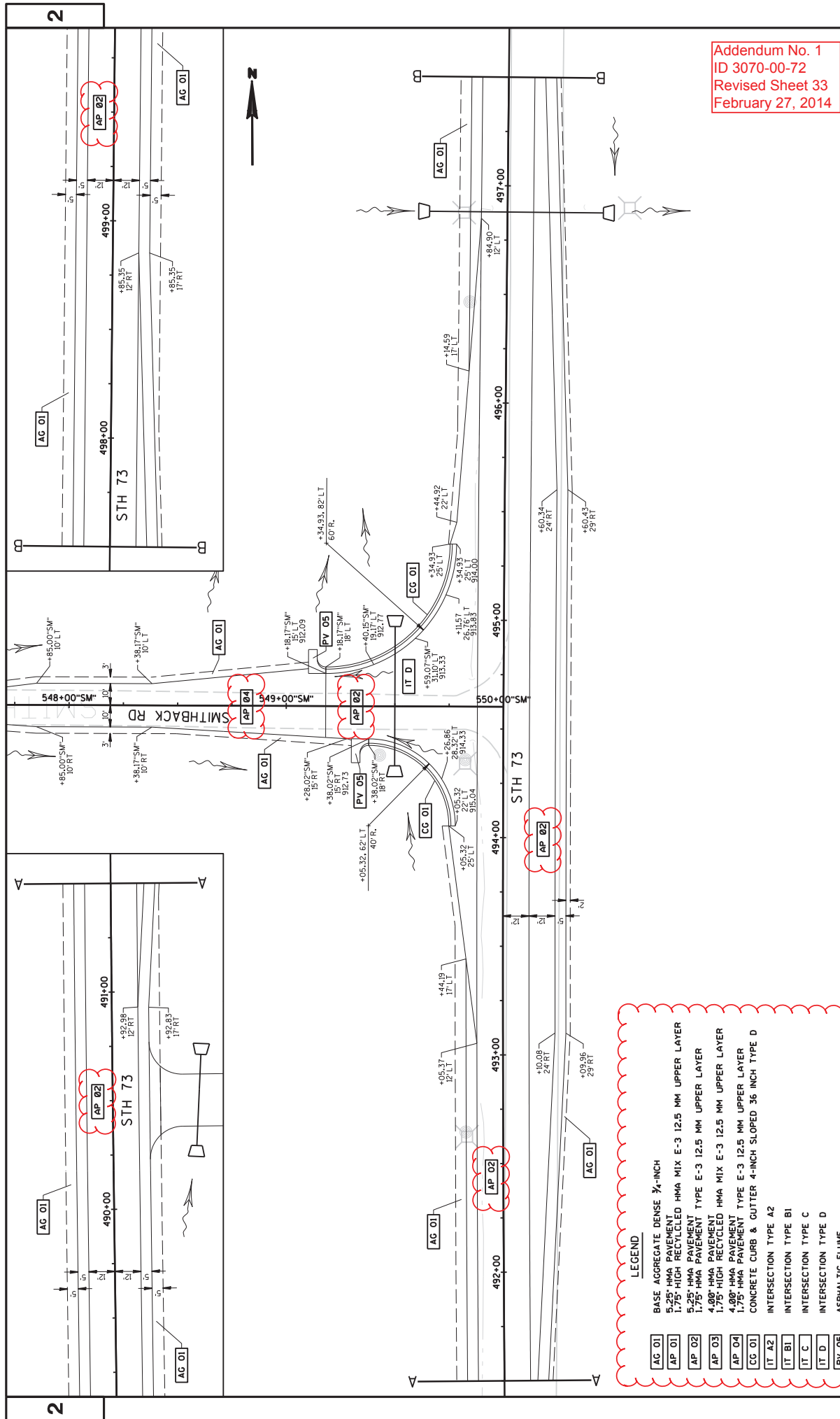
INTERSECTION TYPE C

INTERSECTION TYPE D

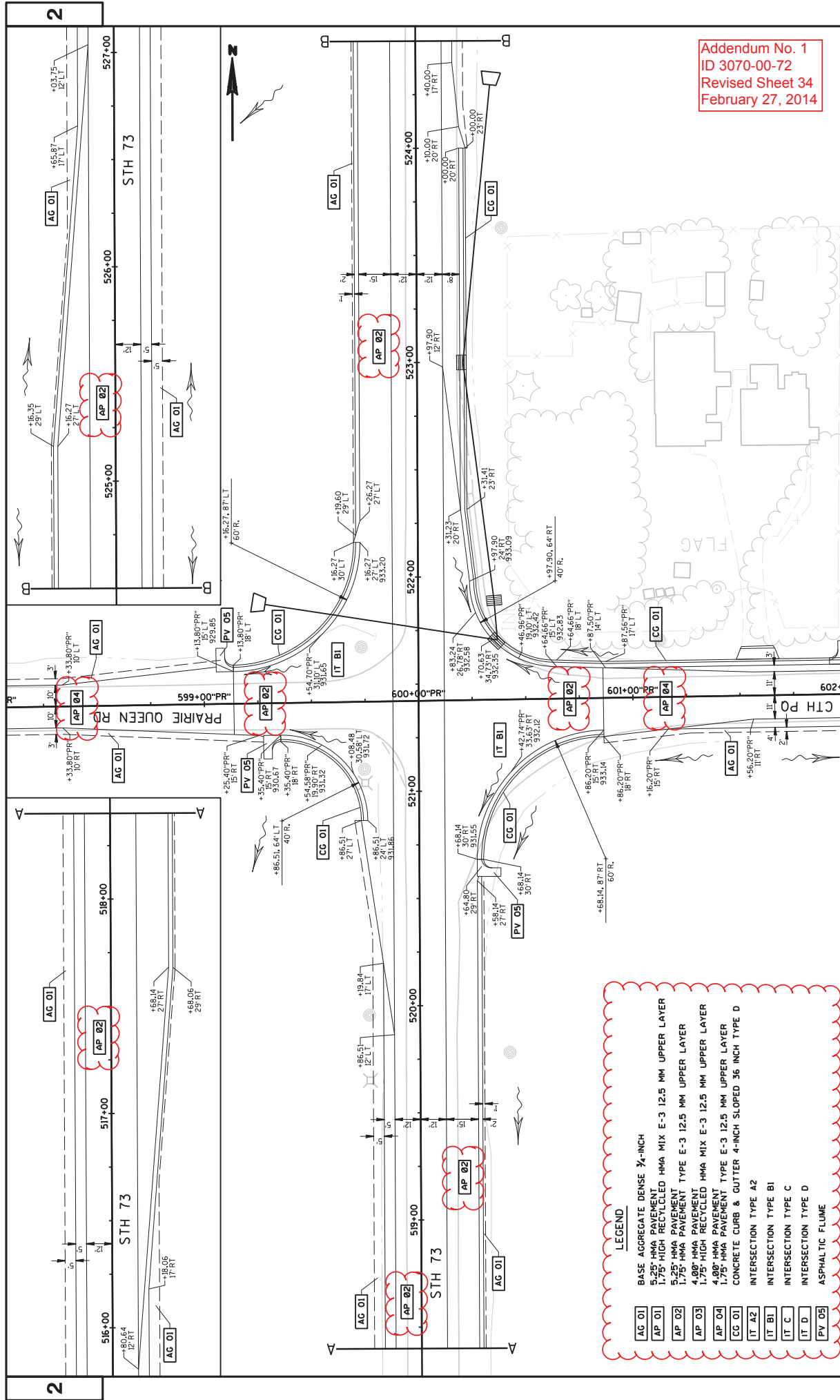
ASPHALTIC FLUME



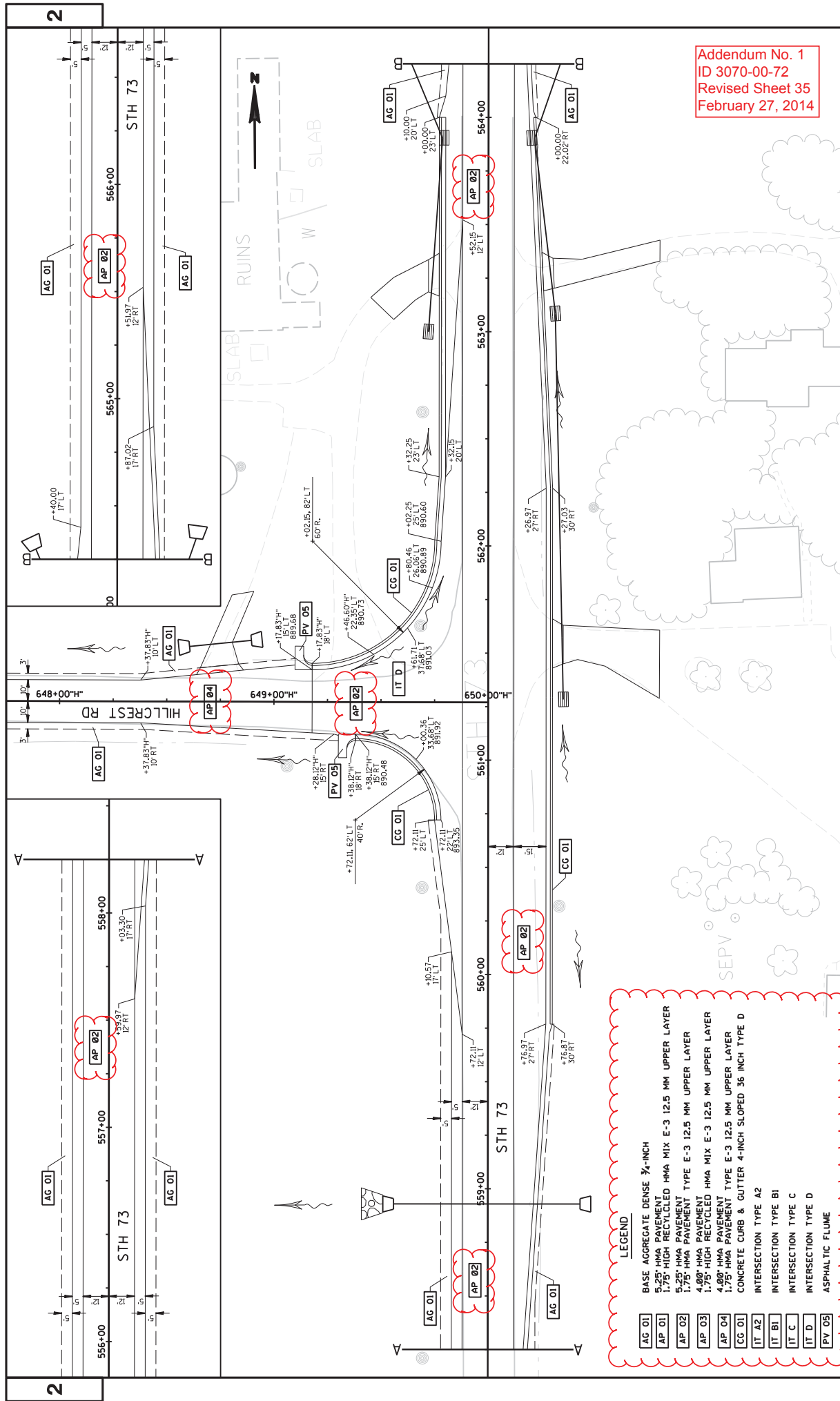
LEND	
AG 01	BASE AGGREGATE DENSE 3/4-INCH
AP 01	5.25" HMA PAVEMENT
AP 02	1.25" HMA PAVEMENT
AP 03	1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
AP 04	4.00" HMA PAVEMENT
AP 05	1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER
AP 06	4.00" HMA PAVEMENT
AP 07	1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
CG 01	CONCRETE CURB & GUTTER 4-INCH SLOPED 36 INCH TYPE D
IT A2	INTERSECTION TYPE A2
IT B1	INTERSECTION TYPE B1
IT C	INTERSECTION TYPE C
IT D	INTERSECTION TYPE D
PV 05	ASPHALTIC FLUME



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ID 3070-00-72
Revised Sheet 33
February 27, 2014



Addendum No. 1
ID 3070-00-72
Revised Sheet 34
February 27, 2014



Addendum No. 1
ID 3070-00-72
Revised Sheet 35
February 27, 2014

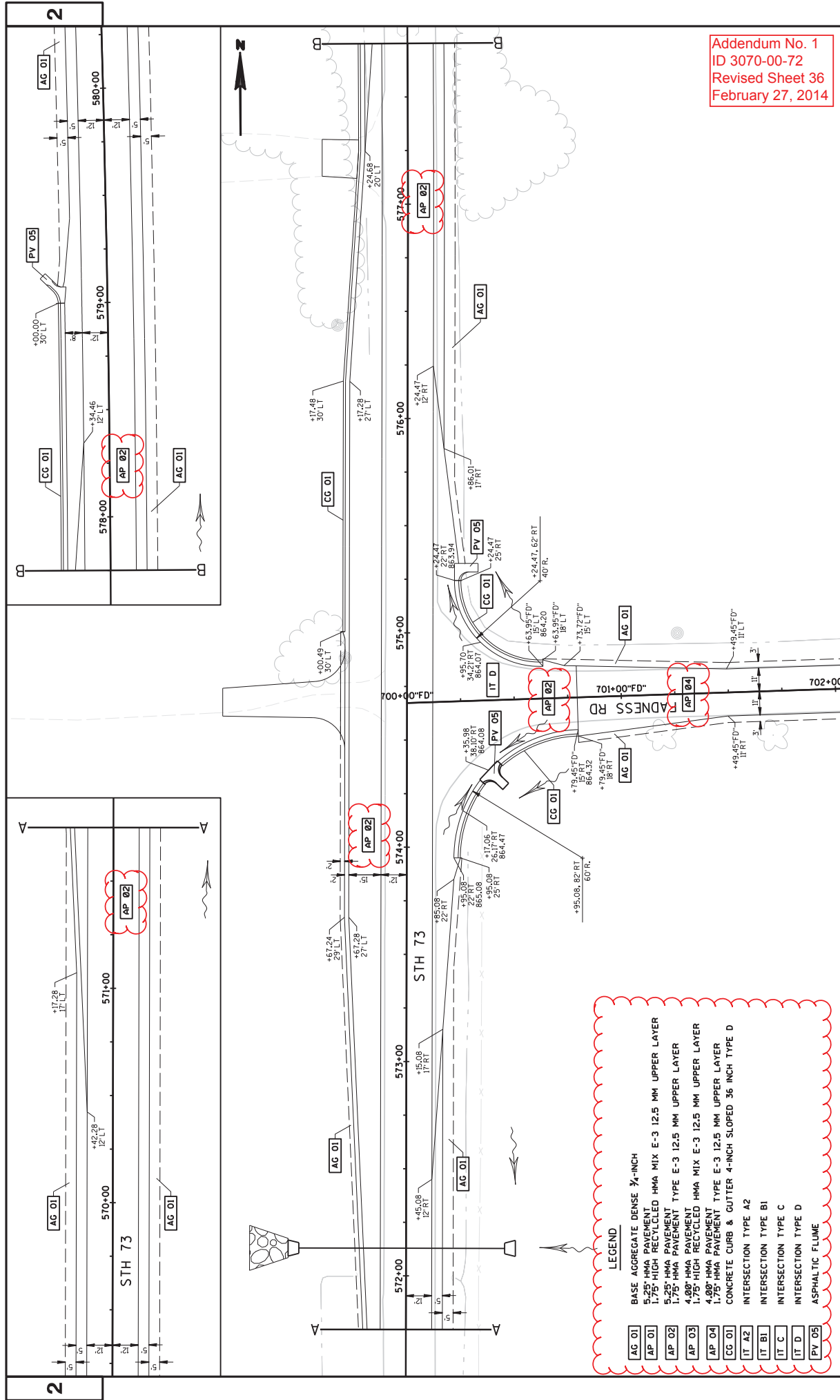
INTERSECTION DETAILS - STH 73

COUNTY: DANE

HWY: STH 73

PROJECT NO: 3070-00-72

SHEET 35



Addendum No. 1
ID 3070-00-72
Revised Sheet 36
February 27, 2014

LEGEND

AG 01 BASE AGGREGATE DENSE 3/4-INCH
 AP 01 5.25" HMA PAVEMENT
 CP 01 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER
 CG 01 CONCRETE PAVEMENT 11-INCH
 CG 01 CONCRETE CURB & GUTTER 4-INCH SLOPED 36 INCH TYPE D
 DR 03 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
 PV 01 ASPHALTIC SURFACE, 4-INCH



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 ID 3070-00-72
 Revised Sheet 37
 February 27, 2014

POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	362+56.53	17.00 RT	981.66	
2	362+56.53	20.00 RT	981.50	
3	362+56.53	20.00 RT	981.48	
4	363+33.85	45.60 RT	981.30	
5	363+89.83	84.00 RT	981.01	
6	364+05.69	84.00 RT	980.95	
7	364+05.69	84.00 RT	980.77	LOW POINT
8	365+30.69	84.00 RT	980.95	
9	365+46.55	84.00 RT	980.87	
10	366+02.53	45.60 RT	980.51	
11	366+39.85	20.00 RT	980.26	
12	366+49.85	20.00 RT	980.23	
13	366+79.85	17.00 RT	981.23	
14	363+70.69	20.00 RT	981.23	
15	363+40.19	30.50 RT	981.26	
16	363+70.69	41.00 RT	981.04	
17	365+40.69	41.00 RT	980.46	LOW POINT
18	365+65.69	41.00 RT	980.50	
19	365+76.19	30.50 RT	980.61	
20	365+65.69	20.00 RT	980.57	
21	364+05.69	20.00 RT	980.56	LOW POINT
22	364+05.69	65.00 RT	981.00	LEVELING PAD
23	364+05.69	78.00 RT	981.00	LEVELING PAD
24	365+30.69	65.00 RT	981.00	LEVELING PAD
25	365+30.69	78.00 RT	981.00	LEVELING PAD
26	363+45.01	23.00 RT	981.42	CROWN POINT
27	363+85.01	65.00 RT	981.11	CROWN POINT
28	365+51.37	65.00 RT	980.91	CROWN POINT
29	365+01.37	23.00 RT	980.65	CROWN POINT
30	363+05.53	60.00 RT	N/A	40' RADIUS
31	363+89.83	24.00 RT	N/A	60' RADIUS
32	365+46.55	24.00 RT	N/A	60' RADIUS
33	366+39.85	60.00 RT	N/A	40' RADIUS
34	365+70.69	30.50 RT	N/A	30.5' RADIUS
35	365+65.69	30.50 RT	N/A	30.5' RADIUS
36	365+85.01	23.00 RT	N/A	40' RADIUS
37	365+51.37	23.00 RT	N/A	40' RADIUS

STH 73

362+00

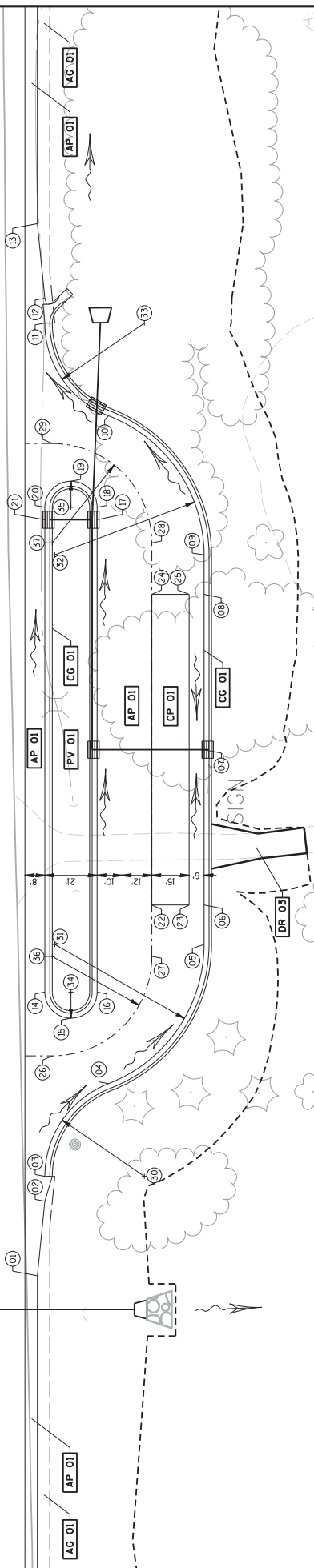
363+00

364+00

365+00

366+00

367+00



PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

PLAN DETAILS - WIM INSPECTION SITE

SHEET

37

E

FILE NAME : C:\Users\adouglass\Desktop\Local Folder\STH 73\Plan Details\0212011.pd.dgn

PLOT DATE : 2/14/2014

PLOT BY : JT ENGINEERING

PLOT SCALE : 40,000 SF / IN.

WISDOT/CADD SHEET 42

BASE AGGREGATE SUMMARY

STATION	STATION	LOCATION	305.0110		305.0120		312.0110		SPV. 0195.01
			BASE AGGREGATE DENSE	TON	BASE AGGREGATE DENSE	TON	SELECT CRUSHED MATERIAL	TON	
79+00	-	92+03	-	202	6,664	5,825	--	--	TRAFFIC CONTROL BASE COURSE
92+03	-	17+73	-	1,841	32,642	32,042	--	--	
17+73	-	207+44	-	984	14,797	14,660	--	--	
207+44	-	227+77	-	437	9,090	8,943	--	--	
227+77	-	255+82	-	616	11,730	11,735	--	--	
255+82	-	281+76	-	496	11,068	11,038	--	--	
281+76	-	315+81	-	612	14,250	14,247	--	--	
315+81	-	349+20	-	692	14,073	13,848	--	--	
349+20	-	384+78	-	871	15,276	14,898	--	--	
384+78	-	441+45	-	1,388	23,530	22,941	--	--	
441+45	-	494+60	-	1,237	21,634	21,286	--	--	
494+60	-	521+42	-	644	11,479	11,187	--	--	
521+42	-	561+27	-	870	16,551	16,302	--	--	
561+27	-	574+68	-	257	5,824	5,851	--	--	
574+68	-	587+10	-	279	5,142	5,108	--	--	
587+10	-	592+53	-	9	639	591	--	--	
592+53	-	607+53	-	13	668	666	--	--	
607+53	-	622+53	-	92	1,425	1,742	--	--	
622+53	-	637+53	-	47	823	1,002	--	--	
637+53	-	652+53	-	11,587	217,306	213,913	--	1,050	
SUBTOTAL									

CONTINUED ON NEXT PAGE

COUNTY: DANE	MISCELLANEOUS QUANTITIES
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HWY: STH 73

PROJECT NO: 3070-00-72

SHEET: 203

FILE NAME : X:\Projects\Dane\3070-00-02 STH 73\Est&Qty\Miscellaneous Quantities\030200 mg.pptx

PLOT BY: JT ENGINEERING

PLOT SCALE : 1:1

Addendum No. 1
ID 3070-00-72
Revised Sheet 203
February 27, 2014

1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100. CUT REDUCED BY 2,500 CY FROM EW SUMMARY TO ACCOUNT FOR SALVAGED ASPHALTIC PAVEMENT MILLING MATERIAL DESIGNATED ELSEWHERE IN PLAN.
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT. SALVAGED/UNUSABLE PAVEMENT MATERIAL REDUCED BY 2,500 CY FROM EW SUMMARY TO ACCOUNT FOR SALVAGED ASPHALTIC PAVEMENT MILLING MATERIAL DESIGNATED ELSEWHERE IN PLAN.
3) EBS EXCAVATION IS TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL. MATERIAL EXCAVATED FROM EBS IS NOT TO BE USED AS FILL ELSEWHERE ON THE PROJECT.
4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL.
5) ROCK EXCAVATION ITEM NUMBER 205.0200.
6) EXPANDED ROCK FACTOR = 1.10
7) EXPANDED FILL FACTOR = 1.15; EXPANDED FILL = (UNEXPANDED FILL - ROCK * ROCK FACTOR) * FILL FACTOR
8) THE MASS ORDNATE - OR - QTY CALCULATED FOR THE DIVISION, PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

BASE AGGREGATE SUMMARY (CONTINUED)

STATION	STATION	LOCATION	305.0110		305.0120		312.0110		REMARKS
			BASE AGGREGATE DENSE 3/4-INCH	BASE AGGREGATE DENSE 1 1/4-INCH	SELECT TRAFFIC CONTROL BASE COURSE	CRUSHED MATERIAL			
144+51"MG"	- 149+20"MG"	MAPLE GROVE ROAD	60	936	1,147	312	SPV.0195.01		
194+90"AR"	- 199+25"AR"	AARBACK RD WEST	55	814	983	290			
200+79"AR"	- 202+80"AR"	AARBACK RD EAST	25	384	468	159			
247+00"TH"	- 249+25"TH"	THRONSON ROAD	29	429	521	170			
296+75"A"	- 299+22"A"	CTH A WEST	22	558	703	185			
300+75"A"	- 303+75"A"	CTH A EAST	--	642	955	227			
347+50"Y"	- 349+25"Y"	TOBACCO LANE	22	332	404	142			
395+50"CH"	- 399+22"CH"	EAST CHURCH ROAD WEST	47	705	855	256			
400+78"CH"	- 404+50"CH"	EAST CHURCH ROAD EAST	47	705	855	256			
448+00"B"	- 449+21"B"	CTH B WEST	11	365	335	114			
450+79"B"	- 452+00"B"	CTH B EAST	11	365	335	114			
494+76"K"	- 499+25"K"	KOSHKONONG ROAD WEST	57	844	1,018	298			
500+78"K"	- 502+00"K"	KOSHKONONG ROAD EAST	--	258	379	114			
547+35"SM"	- 549+19"SM"	SWITHBACK ROAD	24	359	431	150			
595+50"PQ"	- 599+25"PQ"	PRAIRIE QUEEN ROAD	48	710	860	256			
600+75"PQ"	- 602+00"PQ"	CTH PQ	6	263	361	114			
644+75"H"	- 649+28"H"	HILLCREST ROAD	58	857	1,038	298			
700+72"FD"	- 703+50"FD"	FADNESS ROAD	35	560	687	199			
362+83	- 366+33	WIM INSPECTION SITE	--	1,522	1,468	--			
		DRIVEWAYS AND FIELD ENTRANCES	1,869	879	--	--			
		UNDISTRIBUTED	--	--	--	--			
		SUBTOTAL	2,426	12,488	13,802	8,950			
		TOTAL	14,014	229,794	227,715	10,000			

CONCRETE PAVEMENT SUMMARY

STATION	STATION LOCATION	415.0110		REMARKS
		CONCRETE	PAVEMENT	
		11-INCH	SY	
121+00	- 124+00	NB WIM	1000	
551+00	- 554+00	SB WIM	1000	
364+05	- 365+31	WIM INSPECTION SITE	167	
	TOTAL		2,167	

Addendum No. 1
ID 3070-00-72
Revised Sheet 204
February 27, 2014

ASPHALT PAVEMENT SUMMARY

STATION	STATION	LOCATION	AREA SY	PAVEMENT DEPTH IN	MATERIAL PG 58-28	455.0105 ASPHALTIC TACK COAT	460.1103 HMA PAVEMENT TYPE E-3	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	465.0425 ASPHALT SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1	465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	490.0205 SALVAGED PAVEMENT MILLING	SPV.0195.02 HIGH RECYCLED HMA MIX E-3	REMARKS
79+00	-	92+03	6,126	5.25	--	153	--	--	1,212	1,103	--	1,769	SPV.0195.02
92+03	-	171+73	31,876	5.25	--	797	--	--	12,062	7,557	--	9,204	HIGH
171+73	-	207+44	15,023	5.25	--	376	--	--	5,003	2,958	--	4,338	RECYCLED
207+44	-	227+77	9,750	5.25	--	244	--	--	2,331	1,615	--	2,815	HMA MIX
227+77	-	255+82	12,108	5.25	--	303	--	--	3,354	2,407	--	3,497	E-3
255+82	-	281+76	11,456	5.25	--	286	--	--	3,405	2,189	--	3,308	HMA MIX
281+76	-	315+81	14,657	5.25	78	366	1,411	--	4,552	2,998	--	2,822	HIGH
315+81	-	349+20	15,443	5.25	76	361	1,389	--	4,632	2,932	--	2,778	HMA MIX
349+20	-	384+78	25,592	5.25	125	590	2,271	--	9,145	5,066	--	4,541	HMA MIX
384+78	-	441+45	21,615	5.25	114	540	2,080	--	8,016	4,915	--	4,161	HMA MIX
441+45	-	494+60	11,725	5.25	62	293	1,129	--	3,997	2,281	--	2,257	HMA MIX
494+60	-	521+42	15,908	5.25	84	398	1,531	--	5,329	3,585	--	3,062	HMA MIX
521+42	-	561+27	6,162	5.25	33	154	593	--	1,303	940	--	1,186	HMA MIX
561+27	-	574+68	5,206	5.25	28	130	501	--	1,288	753	--	1,002	HMA MIX
574+68	-	587+10	715	4	--	18	--	--	--	--	--	157	HMA MIX
587+10	-	594+25	790	4	--	20	--	--	--	--	--	174	HMA MIX
594+25	-	601+50	1,769	4	--	44	--	--	--	--	--	389	HMA MIX
601+50	-	608+12	1,167	4	--	26	--	--	--	--	--	224	HMA MIX
608+12	-	615+42	981	4	--	25	--	--	--	--	--	216	HMA MIX
615+42	-	622+12	475	4	--	12	--	--	--	--	--	105	HMA MIX
622+12	-	629+17	525	4	--	13	--	--	--	--	--	116	HMA MIX
629+17	-	636+12	408	4	2	10	39	--	--	--	--	98	HMA MIX
636+12	-	643+17	906	4	5	23	87	--	--	--	--	112	HMA MIX
643+17	-	650+12	858	4	5	21	83	--	--	--	--	106	HMA MIX
650+12	-	657+12	858	4	5	21	83	--	--	--	--	106	HMA MIX
657+12	-	664+12	432	4	2	11	42	--	--	--	--	53	HMA MIX
664+12	-	671+12	432	4	2	11	42	--	--	--	--	53	HMA MIX
671+12	-	678+12	1,013	4	5	25	97	--	--	--	--	125	HMA MIX
678+12	-	685+12	359	4	2	9	35	--	--	--	--	44	HMA MIX
685+12	-	692+12	435	4	2	11	42	--	--	--	--	54	HMA MIX
692+12	-	699+14	863	4	5	22	83	--	--	--	--	107	HMA MIX
699+14	-	706+14	720	4	5	22	83	--	--	--	--	107	HMA MIX
706+14	-	713+14	5,747	4	5	22	83	--	--	--	--	107	HMA MIX
713+14	-	720+14	13,100	4	5	22	83	--	--	--	--	107	HMA MIX
720+14	-	727+14	44,450	4	5	22	83	--	--	--	--	107	HMA MIX
727+14	-	734+14	71,300	4	5	22	83	--	--	--	--	107	HMA MIX
734+14	-	741+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
741+14	-	748+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
748+14	-	755+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
755+14	-	762+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
762+14	-	769+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
769+14	-	776+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
776+14	-	783+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
783+14	-	790+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
790+14	-	797+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
797+14	-	804+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
804+14	-	811+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
811+14	-	818+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
818+14	-	825+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
825+14	-	832+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
832+14	-	839+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
839+14	-	846+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
846+14	-	853+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
853+14	-	860+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
860+14	-	867+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
867+14	-	874+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
874+14	-	881+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
881+14	-	888+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
888+14	-	895+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
895+14	-	902+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
902+14	-	909+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
909+14	-	916+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
916+14	-	923+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
923+14	-	930+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
930+14	-	937+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
937+14	-	944+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
944+14	-	951+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
951+14	-	958+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
958+14	-	965+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
965+14	-	972+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
972+14	-	979+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
979+14	-	986+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
986+14	-	993+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
993+14	-	1000+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1000+14	-	1007+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1007+14	-	1014+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1014+14	-	1021+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1021+14	-	1028+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1028+14	-	1035+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1035+14	-	1042+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1042+14	-	1049+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1049+14	-	1056+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1056+14	-	1063+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1063+14	-	1070+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1070+14	-	1077+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1077+14	-	1084+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1084+14	-	1091+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1091+14	-	1098+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1098+14	-	1105+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1105+14	-	1112+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1112+14	-	1119+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1119+14	-	1126+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1126+14	-	1133+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1133+14	-	1140+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1140+14	-	1147+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1147+14	-	1154+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1154+14	-	1161+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1161+14	-	1168+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1168+14	-	1175+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1175+14	-	1182+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1182+14	-	1189+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1189+14	-	1196+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1196+14	-	1203+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1203+14	-	1210+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1210+14	-	1217+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1217+14	-	1224+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1224+14	-	1231+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1231+14	-	1238+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1238+14	-	1245+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1245+14	-	1252+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1252+14	-	1259+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1259+14	-	1266+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1266+14	-	1273+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1273+14	-	1280+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1280+14	-	1287+14	0	4	5	22	83	--	--	--	--	107	HMA MIX
1287+14	-	1294+14											

ASPHALT PAVEMENT SUMMARY

STATION	STATION	LOCATION	AREA SQ	DEPTH IN	PAVEMENT PG 58-28	ASPHALTIC TACK COAT	455.0105	455.0605	460.1103	465.0120	465.0425	465.0475	490.0205	SPV.0195.02
							TON	GAL	TON	TON	LF	LF	TON	TON
600+87" PQ"	- 602+00" PQ"	CTH PQ	372	4	2	9			36					46
644+75" H"	- 649+18" H"	HILLCREST ROAD	1,039	4	6	26			100					179
700+80" FD"	- 703+50" FD"	FADESS ROAD	703	4	4	18			68					87
362+83	- 366+53	WIM INSPECTION SITE	1,133	5.25	6	31			109					218
79+13		PRIVATE ENTRANCE	16	3						2.6				
85+77		PRIVATE ENTRANCE	43	3						7.1				
87+25		PRIVATE ENTRANCE	11	3						1.8				
87+36		PRIVATE ENTRANCE	9	3						1.4				
88+56		PRIVATE ENTRANCE	8	3						1.4				
89+72		PRIVATE ENTRANCE	9	3						1.5				
99+02		PRIVATE ENTRANCE	17	3						2.8				
136+74		PRIVATE ENTRANCE	8	3						1.4				
138+21		PRIVATE ENTRANCE	99	3						16.4				
139+97		PRIVATE ENTRANCE	14	3						2.3				
140+91		PRIVATE ENTRANCE	41	3						6.8				
146+62		PRIVATE ENTRANCE	18	3						2.9				
150+36		PRIVATE ENTRANCE	9	3						1.6				
155+00		PRIVATE ENTRANCE	17	3						2.8				
156+60		PRIVATE ENTRANCE	8	3						1.4				
183+83		PRIVATE ENTRANCE	10	3						1.7				
185+78		FIELD ENTRANCE	17	3						2.8				
193+11		PRIVATE ENTRANCE	8	3						1.4				
194+39		PRIVATE ENTRANCE	63	3						10.3				
195+00		TRUCK TURN-AROUND	115	4						25.3				
195+55		FIELD ENTRANCE	12	3						1.9				
199+91		PRIVATE ENTRANCE	12	3						1.9				
201+54		PRIVATE ENTRANCE	8	3						1.4				
203+03		PRIVATE ENTRANCE	8	3						1.4				
211+23		PRIVATE ENTRANCE	14	3						2.4				
234+63		PRIVATE ENTRANCE	11	3						1.8				
241+44		PRIVATE ENTRANCE	8	3						1.4				
249+95		PRIVATE ENTRANCE	9	3						1.5				
250+54		PRIVATE ENTRANCE	8	3						1.4				
254+67		FIELD ENTRANCE	8	3						1.4				
SUBTOTAL					17	84			312	112	0	0	0	480

* - 5.25" HMA PAVEMENT - 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER, 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 ** - 5.25" HMA PAVEMENT - 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER, 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 *** - 4" HMA PAVEMENT - 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER, 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 **** - 4" HMA PAVEMENT - 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER, 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

CONTINUED ON NEXT PAGE

Addendum No. 1
 ID 3070-00-72
 Revised Sheet 206
 February 27, 2014

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET: 206

E

FILE NAME: X:\Projects\Dane\3070-00-02 STH 73\Est&Qty\Miscellaneous Quantities\30200_mq.pptx

PLOT DATE: December 16, 2013

PLOT BY: JT ENGINEERING

PLOT NAME:

PLOT SCALE: 1:1

ASPHALT PAVEMENT SUMMARY

STATION	STATION	LOCATION	AREA SY	PAVEMENT DEPTH IN	ASPHALTIC MATERIAL PG 58-28	TACK COAT	HMA PAVEMENT TYPE	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	465.0425 ASPHALT SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1	465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	490.0205 SALVAGED ASPHALTIC PAVEMENT MILLING	SPV.0195.02 HIGH RECYCLED HMA MIX E-3	REMARKS
263+20		PRIVATE ENTRANCE	9	3	---	---	---	1.5	---	---	---	---	
264+97		FIELD ENTRANCE	9	3	---	---	---	1.5	---	---	---	---	
276+41		FIELD ENTRANCE	9	3	---	---	---	1.4	---	---	---	---	
278+73		PRIVATE ENTRANCE	11	3	---	---	---	1.7	---	---	---	---	
279+79		PRIVATE ENTRANCE	9	3	---	---	---	1.4	---	---	---	---	
285+45		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
287+93		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
289+16		PRIVATE ENTRANCE	11	3	---	---	---	1.8	---	---	---	---	
295+92		PRIVATE ENTRANCE	17	3	---	---	---	2.8	---	---	---	---	
305+67		FIELD ENTRANCE	17	3	---	---	---	2.8	---	---	---	---	
314+65		PRIVATE ENTRANCE	6	3	---	---	---	1.1	---	---	---	---	
319+42		FIELD ENTRANCE	9	3	---	---	---	1.6	---	---	---	---	
323+36		PRIVATE ENTRANCE	9	3	---	---	---	1.4	---	---	---	---	
335+17		FIELD ENTRANCE	18	3	---	---	---	3.0	---	---	---	---	
335+72		PRIVATE ENTRANCE	18	3	---	---	---	3.0	---	---	---	---	
342+81		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
353+42		PRIVATE ENTRANCE	79	3	---	---	---	13.1	---	---	---	---	
364+29		PRIVATE ENTRANCE	51	3	---	---	---	8.4	---	---	---	---	
389+62		PRIVATE ENTRANCE	95	3	---	---	---	15.6	---	---	---	---	
396+00		FIELD ENTRANCE	18	3	---	---	---	3.0	---	---	---	---	
397+08		PRIVATE ENTRANCE	19	3	---	---	---	3.2	---	---	---	---	
402+34		PRIVATE ENTRANCE	100	3	---	---	---	16.5	---	---	---	---	
405+47		PRIVATE ENTRANCE	81	3	---	---	---	13.4	---	---	---	---	
414+93		PRIVATE ENTRANCE	17	3	---	---	---	2.9	---	---	---	---	
420+65		PRIVATE ENTRANCE	14	3	---	---	---	2.3	---	---	---	---	
422+53		PRIVATE ENTRANCE	21	3	---	---	---	3.4	---	---	---	---	
436+01		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
449+69		PRIVATE ENTRANCE	15	3	---	---	---	2.4	---	---	---	---	
461+30		PRIVATE ENTRANCE	12	3	---	---	---	1.9	---	---	---	---	
465+40		PRIVATE ENTRANCE	88	3	---	---	---	14.4	---	---	---	---	
467+80		FIELD ENTRANCE	18	3	---	---	---	3.0	---	---	---	---	
469+07		PRIVATE ENTRANCE	266	3	---	---	---	43.8	---	---	---	---	
471+72		PRIVATE ENTRANCE	19	3	---	---	---	3.2	---	---	---	---	
480+16		PRIVATE ENTRANCE	12	3	---	---	---	1.9	---	---	---	---	
SUBTOTAL								0	0	0	0	0	

Addendum No. 1
ID 3070-00-72
Revised Sheet 207
February 27, 2014

* - 5.25" HMA PAVEMENT - 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER, 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 ** - 5.25" HMA PAVEMENT - 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER, 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 *** - 4" HMA PAVEMENT - 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER, 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 **** - 4" HMA PAVEMENT - 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER, 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

CONTINUED ON NEXT PAGE

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET: 207

E

FILE NAME: X:\Projects\Dane\3070-00-02 STH 73\Est&Qty\Miscellaneous Quantities\030200_mq.pptx

PLOT DATE: December 16, 2013

PLOT BY: JT ENGINEERING

PLOT NAME:

PLOT SCALE: 1:1

ASPHALT PAVEMENT SUMMARY

STATION	STATION	LOCATION	AREA SY	PAVEMENT DEPTH IN	ASPHALTIC MATERIAL PG 58-28	TACK COAT	460.1103 HMA PAVEMENT TYPE E-3	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	465.0425 ASPHALT SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1	465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	490.0205 SALVAGED PAVEMENT MILLING	SPV.0195.02 HIGH RECYCLED HMA MIX E-3	REMARKS
481+10		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
484+00		FIELD ENTRANCE	12	3	---	---	---	2.0	---	---	---	---	
487+37		PRIVATE ENTRANCE	12	3	---	---	---	1.9	---	---	---	---	
490+50		FIELD ENTRANCE	21	3	---	---	---	3.5	---	---	---	---	
511+00		FIELD ENTRANCE	21	3	---	---	---	3.5	---	---	---	---	
511+98		PRIVATE ENTRANCE	17	3	---	---	---	2.8	---	---	---	---	
536+15		PRIVATE ENTRANCE	14	3	---	---	---	2.3	---	---	---	---	
537+22		PRIVATE ENTRANCE	14	3	---	---	---	2.3	---	---	---	---	
538+68		PRIVATE ENTRANCE	21	3	---	---	---	3.5	---	---	---	---	
546+49		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
547+91		FIELD ENTRANCE	17	3	---	---	---	2.8	---	---	---	---	
548+08		PRIVATE ENTRANCE	8	3	---	---	---	1.4	---	---	---	---	
554+59		FIELD ENTRANCE	21	3	---	---	---	3.5	---	---	---	---	
561+54		PRIVATE ENTRANCE	11	3	---	---	---	1.9	---	---	---	---	
563+23		PRIVATE ENTRANCE	9	3	---	---	---	1.5	---	---	---	---	
563+28		PRIVATE ENTRANCE	10	3	---	---	---	1.6	---	---	---	---	
568+52		PRIVATE ENTRANCE	85	3	---	---	---	14.0	---	---	---	---	
574+70		FIELD ENTRANCE	8	3	---	---	---	1.3	---	---	---	---	
577+22		PRIVATE ENTRANCE	33	3	---	---	---	5.4	---	---	---	---	
102+20' C"		PRIVATE ENTRANCE	63	3	---	---	---	10.5	---	---	---	---	
103+46' C"		PRIVATE ENTRANCE	71	3	---	---	---	11.8	---	---	---	---	
104+04' C"		PRIVATE ENTRANCE	9	3	---	---	---	1.5	---	---	---	---	
104+72' C"		PRIVATE ENTRANCE	8	3	---	---	---	1.3	---	---	---	---	
302+10' A"		PRIVATE ENTRANCE	57	3	---	---	---	9.4	---	---	---	---	
395+61' CH"		PRIVATE ENTRANCE	7	3	---	---	---	1.2	---	---	---	---	
395+68' CH"		PRIVATE ENTRANCE	12	3	---	---	---	2.0	---	---	---	---	
497+00' K"		PRIVATE ENTRANCE	10	3	---	---	---	1.6	---	---	---	---	
498+50' K"		PRIVATE ENTRANCE	136	3	---	---	---	22.5	---	---	---	---	
501+00' K"		PRIVATE ENTRANCE	9	3	---	---	---	1.6	---	---	---	---	
502+00' K"		PRIVATE ENTRANCE	17	3	---	---	---	2.9	---	---	---	---	
601+60' PR"		PRIVATE ENTRANCE	5	3	---	---	---	0.9	---	---	---	---	
648+75' H"		PRIVATE ENTRANCE	5	3	---	---	---	0.9	---	---	---	---	
		UNDISTRIBUTED	---	---	---	---	---	---	---	---	---	---	
		SUBTOTAL	738	0	0	0	126	421	71,300	44,450	5,000	52,741	
		TOTAL	738	0	0	0	126	421	71,300	44,450	5,000	52,741	

Addendum No. 1
ID 3070-00-72
Revised Sheet 208
February 27, 2014

* - 5.25" HMA PAVEMENT - 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER, 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 ** - 5.25" HMA PAVEMENT - 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER, 3.50" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 *** - 4" HMA PAVEMENT - 1.75" HIGH RECYCLED HMA MIX E-3 12.5 MM UPPER LAYER, 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER
 **** - 4" HMA PAVEMENT - 1.75" HMA PAVEMENT TYPE E-3 12.5 MM UPPER LAYER, 2.25" HIGH RECYCLED HMA MIX E-3 19.0 MM LOWER LAYER

PROJECT NO: 3070-00-72

HWY: STH 73

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET: 208

E

FILE NAME: X:\Projects\Dane\3070-00-02 STH 73\Es&Qty\Miscellaneous Quantities\030200_mq.dwg

PLOT DATE: December 16, 2013

PLOT BY: JT ENGINEERING

PLOT NAME:

PLOT SCALE: 1:1

SCHEDULE OF ITEMS

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0210	206.2000 EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-13-2073	LUMP	LUMP			.
0220	206.6000.S TEMPORARY SHORING	885.000 SF		.		.
0230	209.0300.S BACKFILL COARSE AGGREGATE (SIZE) 01. NO. 2	4.000 CY		.		.
0240	210.0100 BACKFILL STRUCTURE	1,320.000 CY		.		.
0250	213.0100 FINISHING ROADWAY (PROJECT) 01. 3070-00-72	1.000 EACH		.		.
0260	213.0100 FINISHING ROADWAY (PROJECT) 02. 3070-00-75	1.000 EACH		.		.
0270	214.0100 OBLITERATING OLD ROAD	8.600 STA		.		.
0280	305.0110 BASE AGGREGATE DENSE 3/4-INCH	14,014.000 TON		.		.
0290	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	229,794.000 TON		.		.
0300	311.0115 BREAKER RUN	130.000 CY		.		.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0310	312.0110 SELECT CRUSHED MATERIAL	227,715.000 TON	.		.	
0320	415.0110 CONCRETE PAVEMENT 11-INCH	2,167.000 SY	.		.	
0330	440.4410.S INCENTIVE IRI RIDE	38,492.000 DOL	1.00000		38492.00	
0340	455.0105 ASPHALTIC MATERIAL PG58-28	738.000 TON	.		.	
0350	455.0605 TACK COAT	5,831.000 GAL	.		.	
0370	460.2000 INCENTIVE DENSITY HMA PAVEMENT	42,340.000 DOL	1.00000		42340.00	
0390	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	421.000 TON	.		.	
0400	465.0315 ASPHALTIC FLUMES	857.000 SY	.		.	
0410	465.0425 ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL	71,300.000 LF	.		.	
0420	465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	44,450.000 LF	.		.	
0430	490.0205 SALVAGED ASPHALTIC PAVEMENT MILLING	5,000.000 TON	.		.	

SCHEDULE OF ITEMS

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0440	504.0100 CONCRETE MASONRY CULVERTS	195.000 CY	.		.	
0450	504.0900 CONCRETE MASONRY ENDWALLS	12.800 CY	.		.	
0460	505.0410 BAR STEEL REINFORCEMENT HS CULVERTS	31,380.000 LB	.		.	
0470	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	32.000 SY	.		.	
0480	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH	994.000 LF	.		.	
0490	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH	118.000 LF	.		.	
0500	521.0130 CULVERT PIPE CORRUGATED STEEL 30-INCH	160.000 LF	.		.	
0510	521.0136 CULVERT PIPE CORRUGATED STEEL 36-INCH	73.000 LF	.		.	
0520	521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1	3.000 EACH	.		.	
0530	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1	3.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0540	521.0721 PIPE ARCH CORRUGATED STEEL 21X15-INCH	41.000 LF	.		.	
0550	521.0764 PIPE ARCH CORRUGATED STEEL 64X43-INCH	266.000 LF	.		.	
0560	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	48.000 EACH	.		.	
0570	521.1221 APRON ENDWALLS FOR PIPE ARCH STEEL 21X15-INCH	4.000 EACH	.		.	
0580	521.1524 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1	4.000 EACH	.		.	
0590	521.1530 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 30-INCH 6 TO 1	12.000 EACH	.		.	
0600	521.1536 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 36-INCH 6 TO 1	4.000 EACH	.		.	
0610	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	400.000 LF	.		.	
0620	522.0127 CULVERT PIPE REINFORCED CONCRETE CLASS III 27-INCH	224.000 LF	.		.	
0630	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	549.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0640	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	751.000 LF	.		.	
0650	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH	262.000 LF	.		.	
0660	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	472.000 LF	.		.	
0670	522.0330 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH	60.000 LF	.		.	
0680	522.0342 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH	78.000 LF	.		.	
0690	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	27.000 EACH	.		.	
0700	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	31.000 EACH	.		.	
0710	522.1027 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 27-INCH	4.000 EACH	.		.	
0720	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	14.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0730	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	15.000 EACH	.		.	
0740	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH	1.000 EACH	.		.	
0750	523.0119 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH	160.000 LF	.		.	
0760	523.0129 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 29X45-INCH	168.000 LF	.		.	
0770	523.0134 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH	164.000 LF	.		.	
0780	523.0429 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	48.000 LF	.		.	
0790	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	4.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0800	523.0529 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH	EACH 6.000	.		.	
0810	523.0534 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH	EACH 4.000	.		.	
0820	601.0553 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF 16,272.000	.		.	
0830	606.0200 RIPRAP MEDIUM	CY 612.000	.		.	
0840	606.0300 RIPRAP HEAVY	CY 208.000	.		.	
0850	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF 5,617.000	.		.	
0860	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF 981.000	.		.	
0870	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF 381.000	.		.	
0880	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF 458.000	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0890	608.0430 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH	411.000 LF	.		.	
0900	611.0530 MANHOLE COVERS TYPE J	1.000 EACH	.		.	
0910	611.0627 INLET COVERS TYPE HM	32.000 EACH	.		.	
0920	611.0642 INLET COVERS TYPE MS	43.000 EACH	.		.	
0930	611.1005 CATCH BASINS 5-FT DIAMETER	3.000 EACH	.		.	
0940	611.1006 CATCH BASINS 6-FT DIAMETER	1.000 EACH	.		.	
0950	611.2004 MANHOLES 4-FT DIAMETER	1.000 EACH	.		.	
0960	611.3004 INLETS 4-FT DIAMETER	16.000 EACH	.		.	
0970	611.3253 INLETS 2.5X3-FT	12.000 EACH	.		.	
0980	611.3901 INLETS MEDIAN 1 GRATE	27.000 EACH	.		.	
0990	611.3902 INLETS MEDIAN 2 GRATE	8.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20140311005PROJECT(S):
3070-00-72
3070-00-75FEDERAL ID(S):
WISC 2014064
WISC 2014061

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1000	612.0106 PIPE UNDERDRAIN 6-INCH	8,650.000 LF	.		.	
1010	612.0204 PIPE UNDERDRAIN UNPERFORATED 4-INCH	1,500.000 LF	.		.	
1020	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH	811.000 LF	.		.	
1030	612.0208 PIPE UNDERDRAIN UNPERFORATED 8-INCH	250.000 LF	.		.	
1040	612.0210 PIPE UNDERDRAIN UNPERFORATED 10-INCH	250.000 LF	.		.	
1050	612.0700 DRAIN TILE EXPLORATION	2,500.000 LF	.		.	
1060	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	10.000 EACH	.		.	
1070	616.0700.S FENCE SAFETY	980.000 LF	.		.	
1080	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 3070-00-72	1.000 EACH	.		.	
1090	619.1000 MOBILIZATION	1.000 EACH	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1100	623.0200 DUST CONTROL SURFACE TREATMENT	100,000.000 SY	.		.	
1110	624.0100 WATER	2,300.000 MGAL	.		.	
1120	625.0500 SALVAGED TOPSOIL	385,500.000 SY	.		.	
1130	627.0200 MULCHING	212,500.000 SY	.		.	
1140	628.1504 SILT FENCE	93,450.000 LF	.		.	
1150	628.1520 SILT FENCE MAINTENANCE	93,450.000 LF	.		.	
1160	628.1905 MOBILIZATIONS EROSION CONTROL	6.000 EACH	.		.	
1170	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	10.000 EACH	.		.	
1180	628.2002 EROSION MAT CLASS I TYPE A	108,000.000 SY	.		.	
1190	628.2004 EROSION MAT CLASS I TYPE B	64,100.000 SY	.		.	
1200	628.2006 EROSION MAT URBAN CLASS I TYPE A	24,500.000 SY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1210	628.2008 EROSION MAT URBAN CLASS I TYPE B	6,950.000 SY	.		.	
1220	628.5505 POLYETHYLENE SHEETING	158.000 SY	.		.	
1230	628.6510 SOIL STABILIZER TYPE B	12.000 ACRE	.		.	
1240	628.7005 INLET PROTECTION TYPE A	35.000 EACH	.		.	
1250	628.7015 INLET PROTECTION TYPE C	27.000 EACH	.		.	
1260	628.7020 INLET PROTECTION TYPE D	41.000 EACH	.		.	
1270	628.7504 TEMPORARY DITCH CHECKS	7,850.000 LF	.		.	
1280	628.7555 CULVERT PIPE CHECKS	180.000 EACH	.		.	
1290	629.0205 FERTILIZER TYPE A	240.000 CWT	.		.	
1300	630.0130 SEEDING MIXTURE NO. 30	6,950.000 LB	.		.	
1310	630.0200 SEEDING TEMPORARY	5,200.000 LB	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1320	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 01. ARBORVITAE, BALLED & BURLAP, 5-FOOT	14.000 EACH	.		.	
1330	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	10.000 EACH	.		.	
1340	633.5100 MARKERS ROW	559.000 EACH	.		.	
1350	633.5200 MARKERS CULVERT END	166.000 EACH	.		.	
1360	634.0412 POSTS WOOD 4X4-INCH X 12-FT	2.000 EACH	.		.	
1370	634.0614 POSTS WOOD 4X6-INCH X 14-FT	5.000 EACH	.		.	
1380	634.0616 POSTS WOOD 4X6-INCH X 16-FT	123.000 EACH	.		.	
1390	634.0618 POSTS WOOD 4X6-INCH X 18-FT	7.000 EACH	.		.	
1400	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS	4,000.500 LB	.		.	
1410	636.0100 SIGN SUPPORTS CONCRETE MASONRY	6.000 CY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1420	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT	372.000 LB	.		.	
1430	637.2210 SIGNS TYPE II REFLECTIVE H	271.760 SF	.		.	
1440	637.2230 SIGNS TYPE II REFLECTIVE F	271.000 SF	.		.	
1450	638.2102 MOVING SIGNS TYPE II	53.000 EACH	.		.	
1460	638.2602 REMOVING SIGNS TYPE II	128.000 EACH	.		.	
1470	638.3000 REMOVING SMALL SIGN SUPPORTS	168.000 EACH	.		.	
1480	638.3610 ERECTING STATE OWNED SIGNS TYPE I	2.000 EACH	.		.	
1490	642.5201 FIELD OFFICE TYPE C	1.000 EACH	.		.	
1500	643.0100 TRAFFIC CONTROL (PROJECT) 01. 3070-00-72	1.000 EACH	.		.	
1510	643.0300 TRAFFIC CONTROL DRUMS	7,800.000 DAY	.		.	
1520	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	9,090.000 DAY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1530	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	18,180.000 DAY	.		.	
1540	643.0900 TRAFFIC CONTROL SIGNS	15,915.000 DAY	.		.	
1550	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	129.000 EACH	.		.	
1560	643.1050 TRAFFIC CONTROL SIGNS PCMS	60.000 DAY	.		.	
1570	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 01. 3070-00-72	1.000 EACH	.		.	
1580	643.3000 TRAFFIC CONTROL DETOUR SIGNS	54,000.000 DAY	.		.	
1590	645.0105 GEOTEXTILE FABRIC TYPE C	290.000 SY	.		.	
1600	645.0120 GEOTEXTILE FABRIC TYPE HR	1,408.000 SY	.		.	
1610	646.0106 PAVEMENT MARKING EPOXY 4-INCH	155,830.000 LF	.		.	
1620	646.0126 PAVEMENT MARKING EPOXY 8-INCH	4,300.000 LF	.		.	
1630	646.0600 REMOVING PAVEMENT MARKINGS	200.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1640	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH	201.000 LF	.		.	
1650	648.0100 LOCATING NO-PASSING ZONES	9.660 MI	.		.	
1660	650.4000 CONSTRUCTION STAKING STORM SEWER	106.000 EACH	.		.	
1670	650.4500 CONSTRUCTION STAKING SUBGRADE	59,012.000 LF	.		.	
1680	650.5000 CONSTRUCTION STAKING BASE	58,412.000 LF	.		.	
1690	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	16,272.000 LF	.		.	
1700	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	43.000 EACH	.		.	
1710	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. C-13-2073	LUMP	LUMP		.	
1720	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	725.000 LF	.		.	
1730	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 3070-00-72	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
1740	650.9920 CONSTRUCTION STAKING SLOPE STAKES	59,012.000 LF	.		.	
1750	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	120.000 LF	.		.	
1760	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	80.000 LF	.		.	
1770	653.0135 PULL BOXES STEEL 24X36-INCH	1.000 EACH	.		.	
1780	653.0140 PULL BOXES STEEL 24X42-INCH	2.000 EACH	.		.	
1790	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG	880.000 LF	.		.	
1800	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 01. DMS-13-0050	LUMP	LUMP		.	
1810	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 02. DMS-13-0051	LUMP	LUMP		.	
1820	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 01. DMS-13-0050	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
1830	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 02. DMS-13-0051	LUMP	LUMP			.
1840	659.0802 PLAQUES SEQUENCE IDENTIFICATION	8.000 EACH	.		.	
1850	670.0100 FIELD SYSTEM INTEGRATOR	LUMP	LUMP			.
1860	670.0200 ITS DOCUMENTATION	LUMP	LUMP			.
1870	673.0225.S INSTALL POLE MOUNTED CABINET	2.000 EACH	.		.	
1880	674.0200 CABLE MICROWAVE DETECTOR	82.000 LF	.		.	
1890	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY	2.000 EACH	.		.	
1900	675.0400.S INSTALL ETHERNET SWITCH	1.000 EACH	.		.	
1910	678.0500 COMMUNICATION SYSTEM TESTING	LUMP	LUMP			.
1920	690.0150 SAWING ASPHALT	700.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1930	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT	596.000 DOL	1.00000		596.00	
1940	715.0502 INCENTIVE STRENGTH CONCRETE STRUCTURES	1,170.000 DOL	1.00000		1170.00	
1950	ASP.1T0A ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	3,000.000 HRS	5.00000		15000.00	
1960	ASP.1T0G ON-THE-JOB TRAINING GRADUATE AT \$5. 00/HR	1,850.000 HRS	5.00000		9250.00	
1970	SPV.0060 SPECIAL 01. INSTALL GROUND MOUNT DYNAMIC MESSAGE SIGN	2.000 EACH	.		.	
1980	SPV.0060 SPECIAL 02. INSTALL SOLAR POWER SYSTEM - MICROWAVE DETECTOR	1.000 EACH	.		.	
1990	SPV.0060 SPECIAL 03. INSTALL CELLULAR MODEM	3.000 EACH	.		.	
2000	SPV.0060 SPECIAL 04. 50-FOOT WOOD POLE	2.000 EACH	.		.	
2010	SPV.0060 SPECIAL 05. REMOVING AND RETURNING STATE OWNED SIGNS	2.000 EACH	.		.	
2020	SPV.0060 SPECIAL 06. BASELINE CPM PROGRESS SCHEDULE	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2030	SPV.0060 SPECIAL 07. CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS	8.000 EACH	.		.	
2040	SPV.0060 SPECIAL 08. LANDMARK REFERENCE MONUMENTS SPECIAL	14.000 EACH	.		.	
2050	SPV.0105 SPECIAL 01. TEMPORARY SAND BAG DIKE	LUMP	LUMP		.	
2060	SPV.0105 SPECIAL 02. ELECTRICAL SERVICE VIRTUAL WEIGH STATION	LUMP	LUMP		.	
2070	SPV.0105 SPECIAL 03. VIRTUAL WEIGH STATION SYSTEM	LUMP	LUMP		.	
2080	SPV.0105 SPECIAL 04. VIRTUAL WEIGH STATION SYSTEM WARRANTY MAINTENANCE	LUMP	LUMP		.	
2090	SPV.0195 SPECIAL 01. TRAFFIC CONTROL BASE COURSE	10,000.000 TON	.		.	
3000	460.1103 HMA PAVEMENT TYPE E-3	13,412.000 TON	.		.	
3010	SPV.0195 SPECIAL 02. HIGH RECYCLED HMA MIX E-3	52,741.000 TON	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	